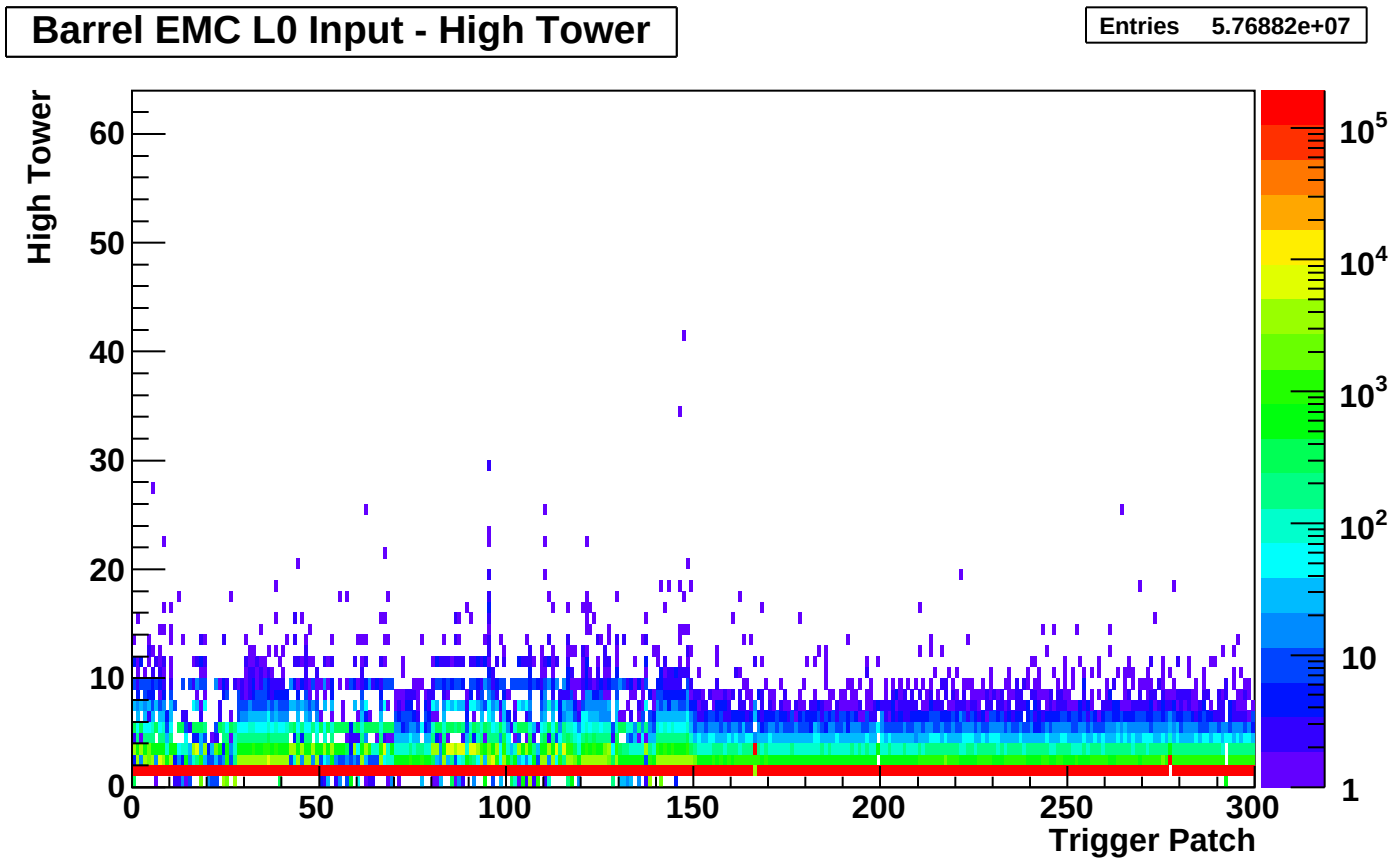
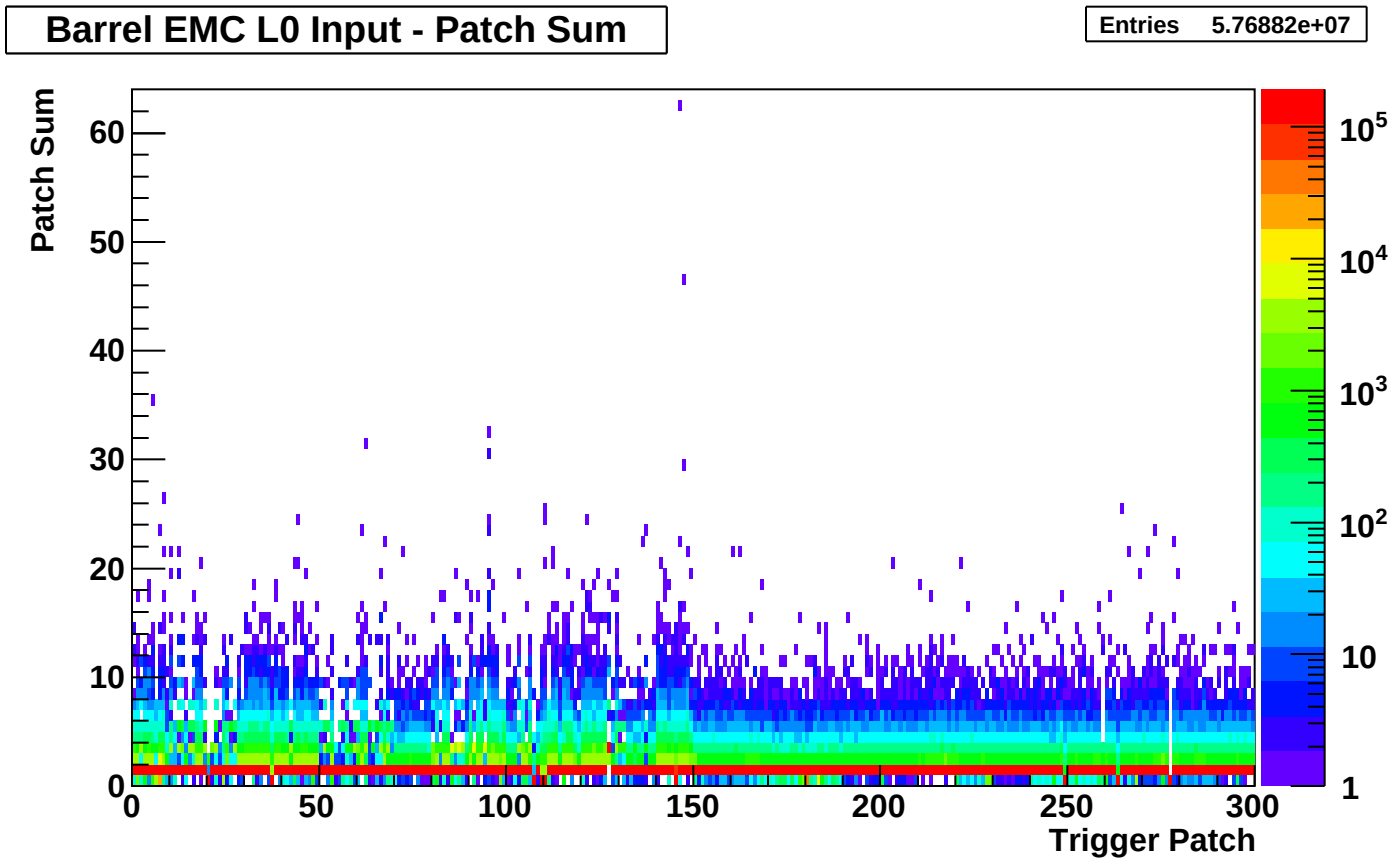
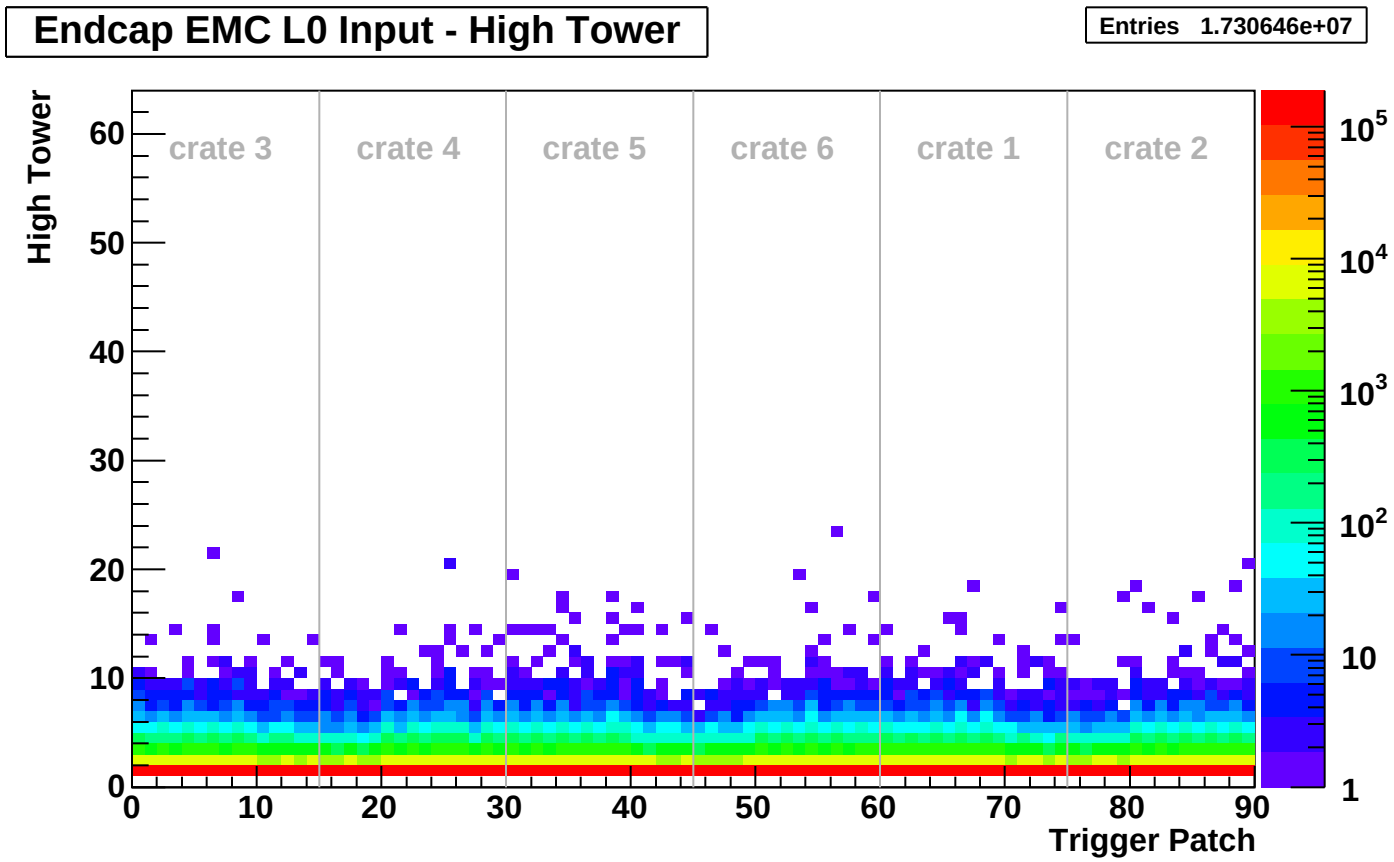
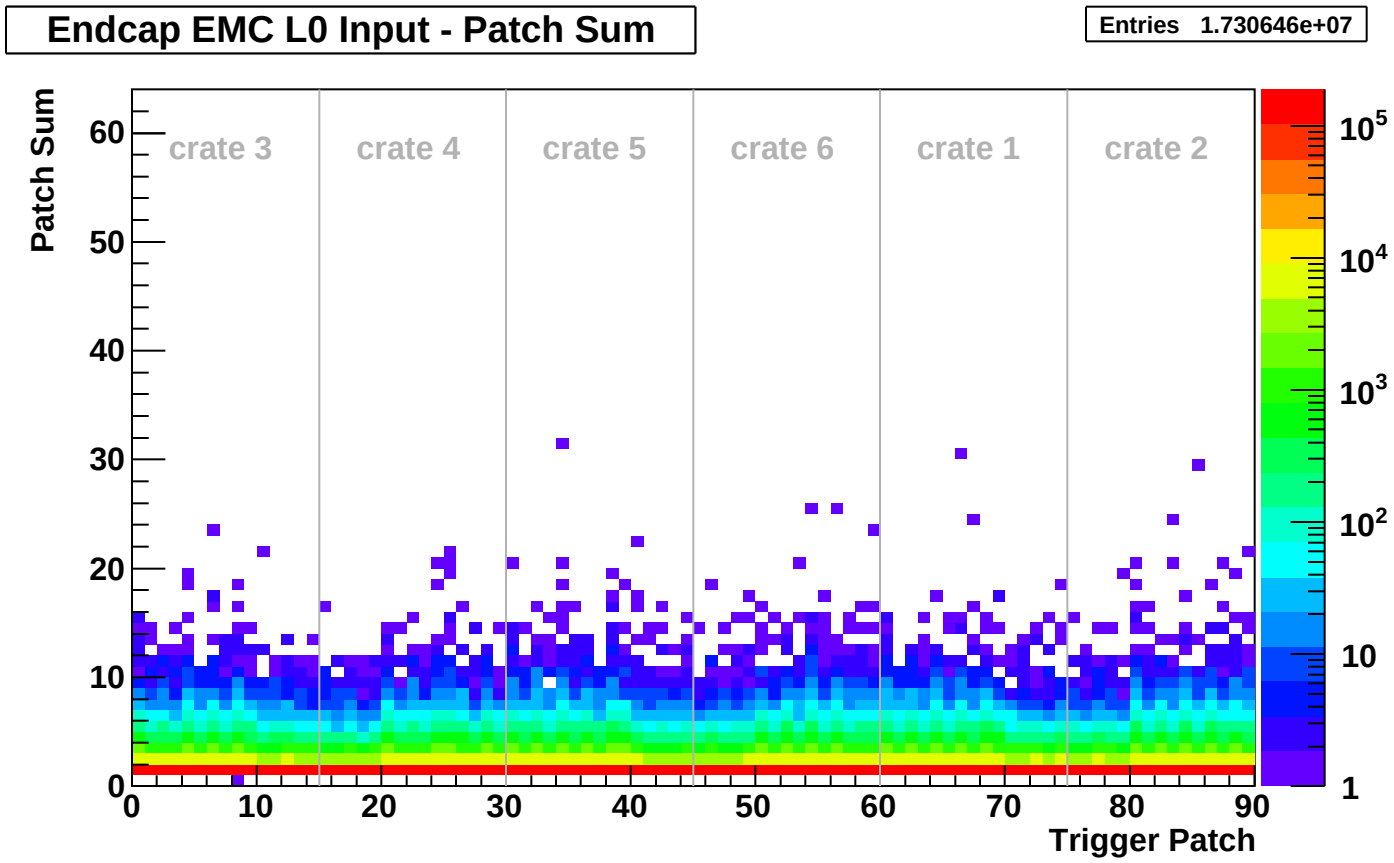
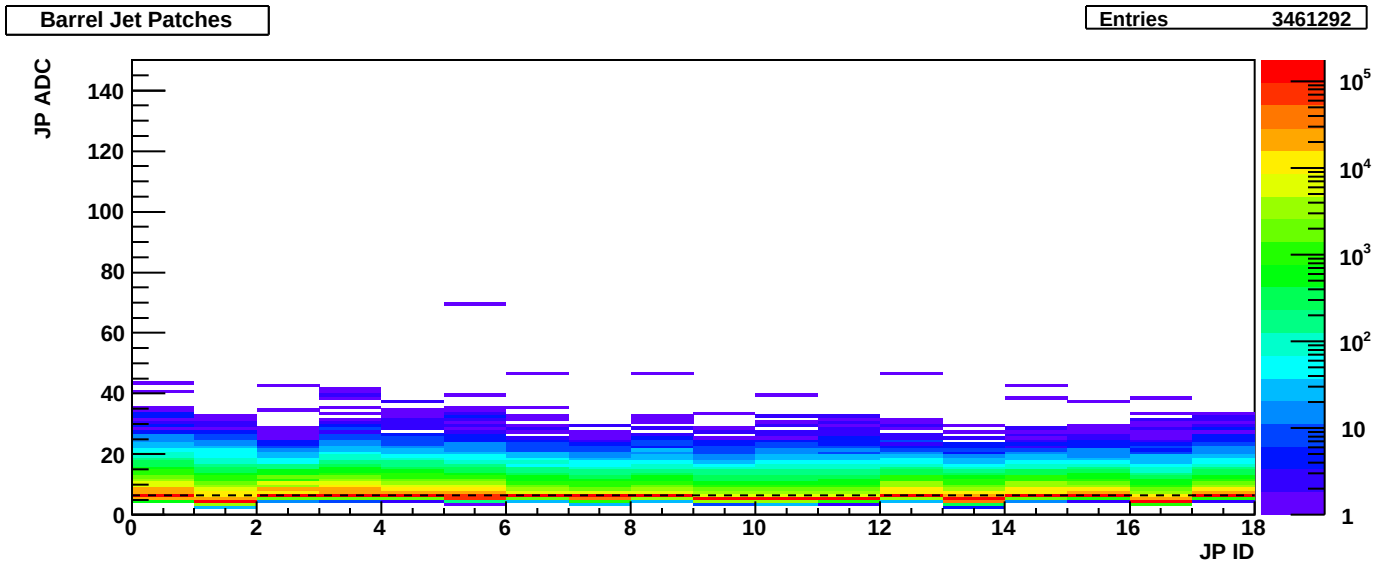
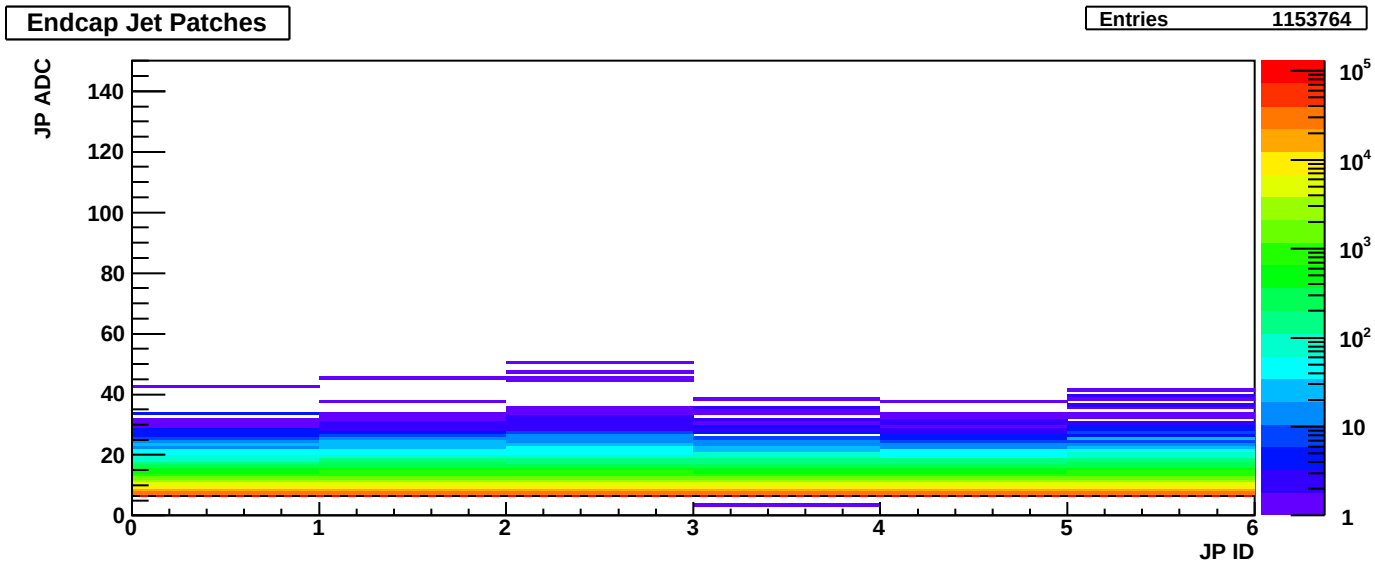

Barrel EMC L0 Input - High Tower
Entries 5.76882e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

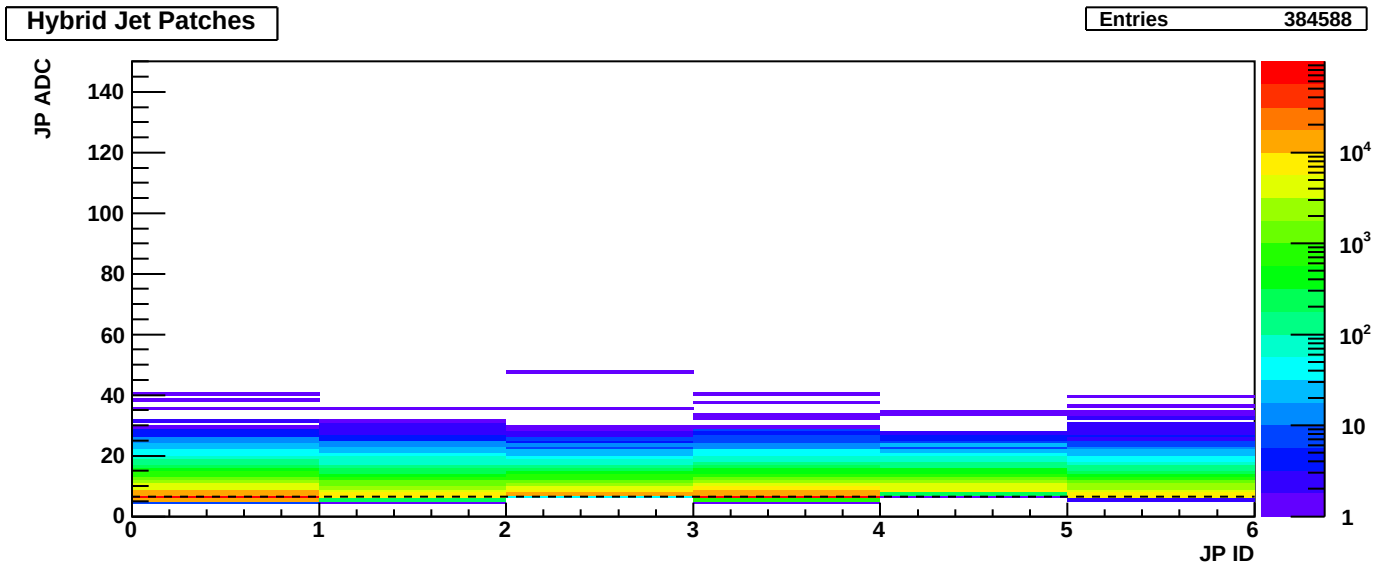

Barrel EMC L0 Input - Patch Sum
Entries 5.76882e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

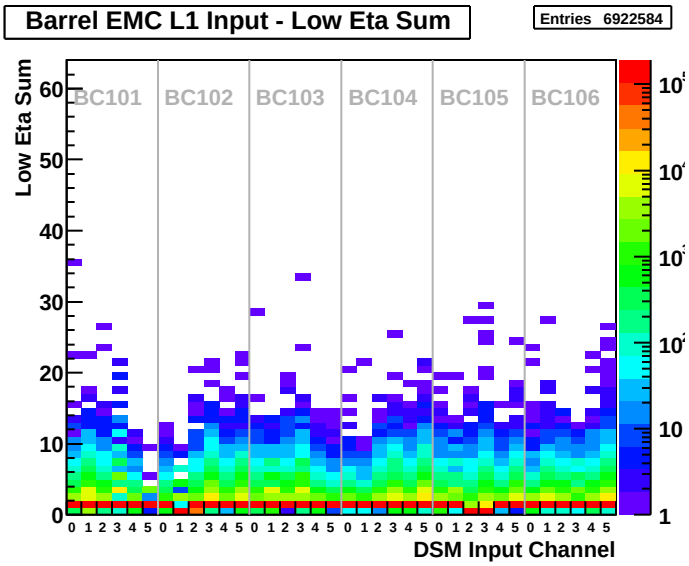

Endcap EMC L0 Input - High Tower
Entries 1.730646e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

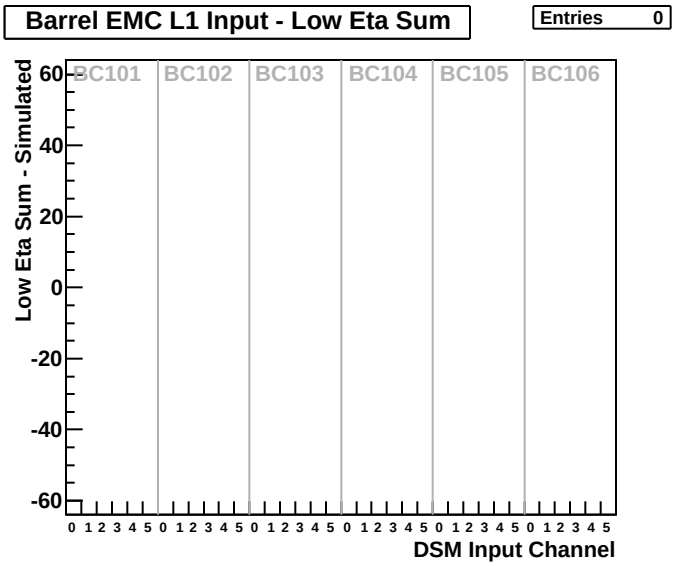

Endcap EMC L0 Input - Patch Sum
Entries 1.730646e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

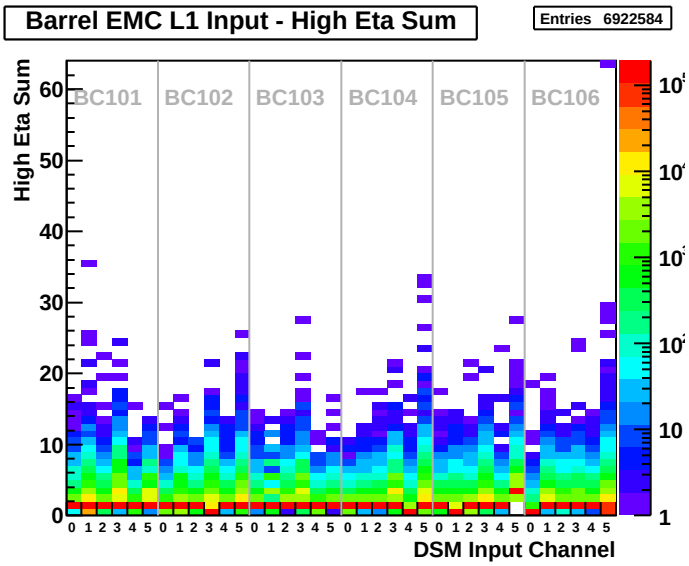

Barrel Jet Patches
Entries 3461292
JP ADC
JP ID

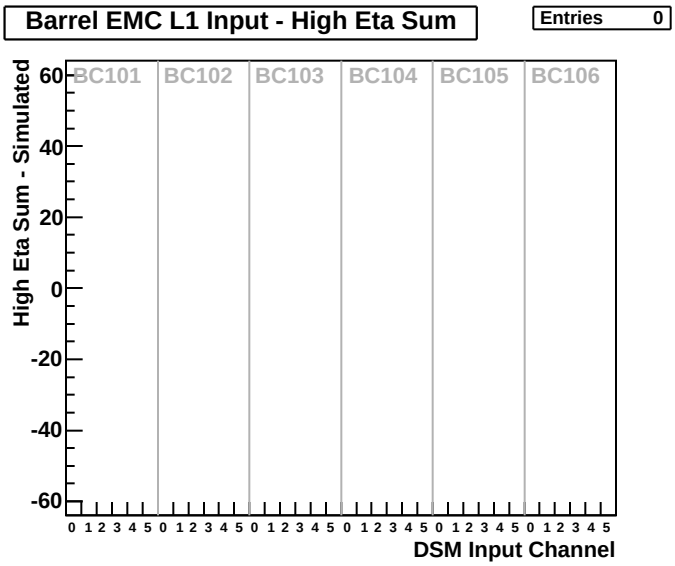

Endcap Jet Patches
Entries 1153764
JP ADC
JP ID

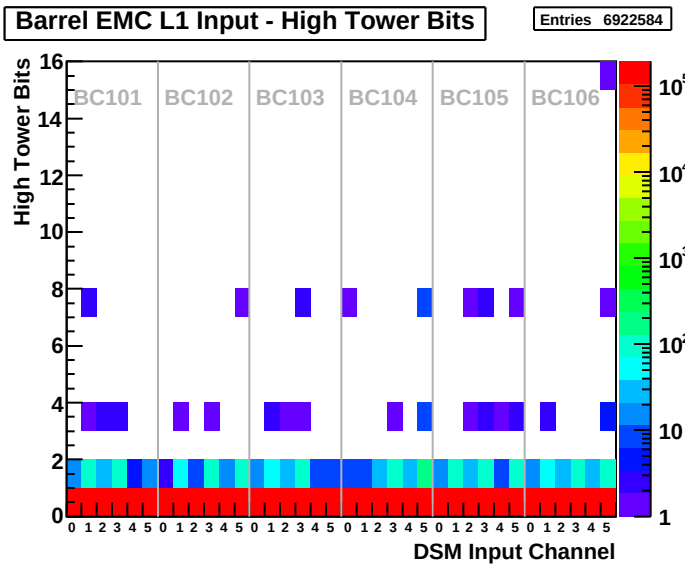

Hybrid Jet Patches
Entries 384588
JP ADC
JP ID

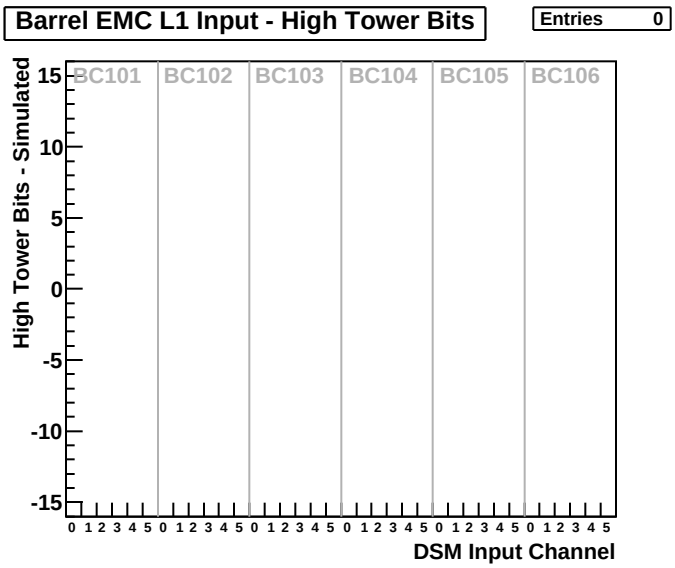

Barrel EMC L1 Input - Low Eta Sum
Entries 6922584
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

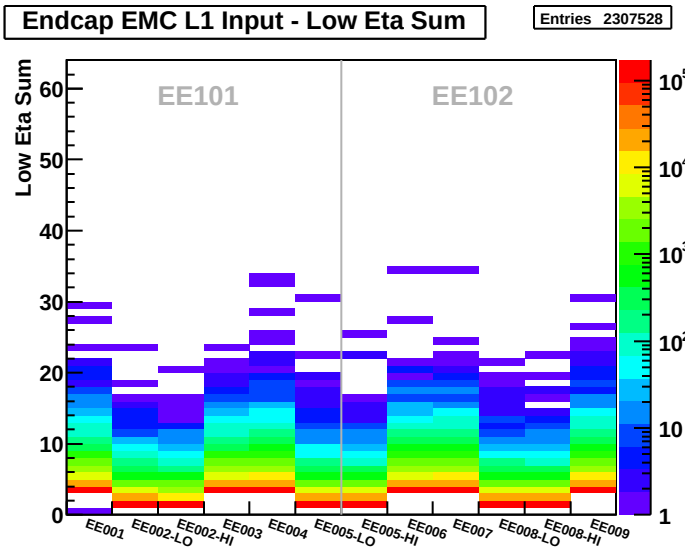

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

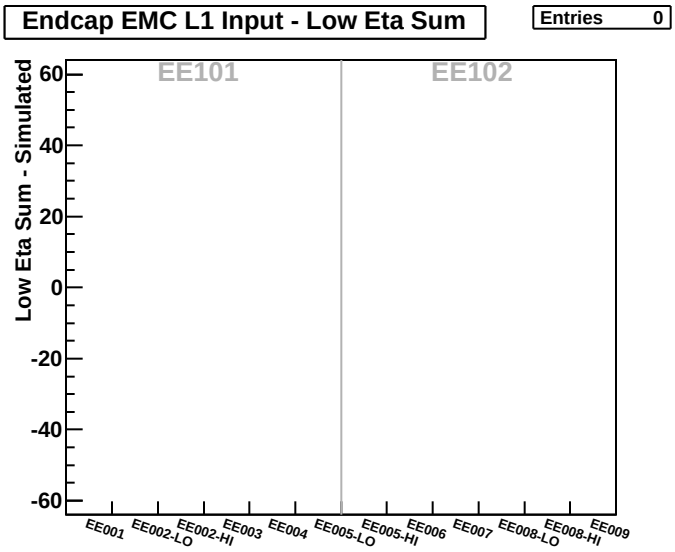

Barrel EMC L1 Input - High Eta Sum
Entries 6922584
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

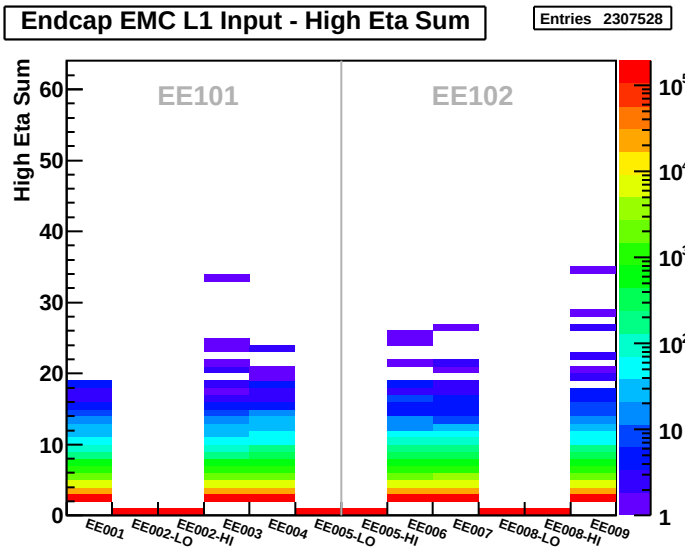

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

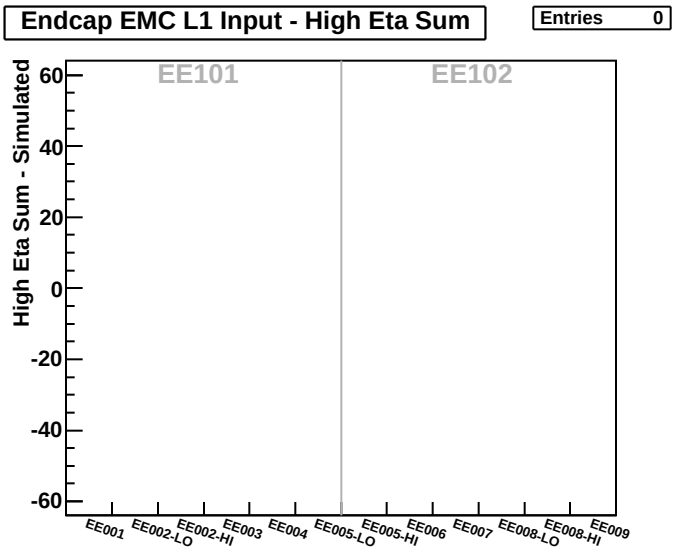

Barrel EMC L1 Input - High Tower Bits
Entries 6922584
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

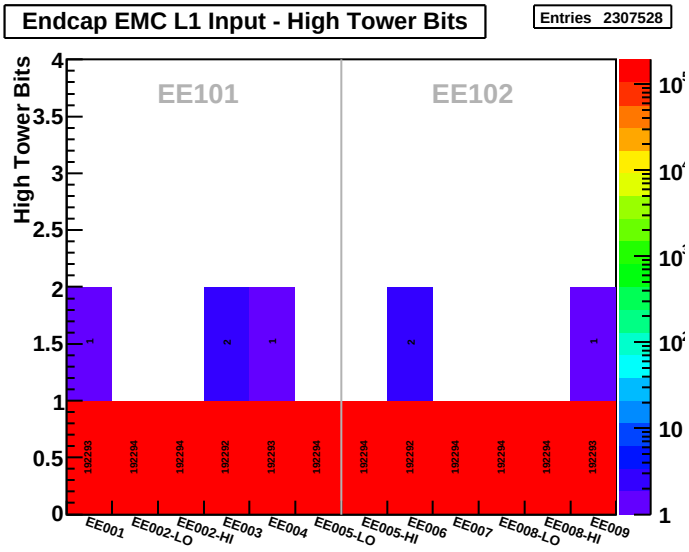

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

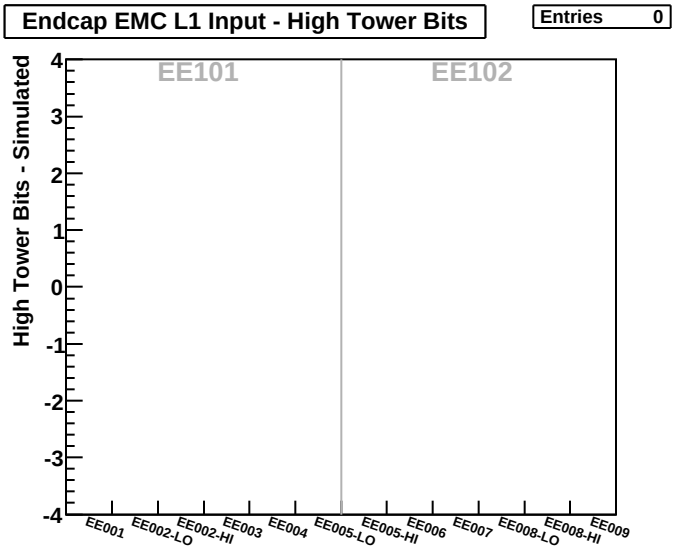

Endcap EMC L1 Input - Low Eta Sum
Entries 2307528
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

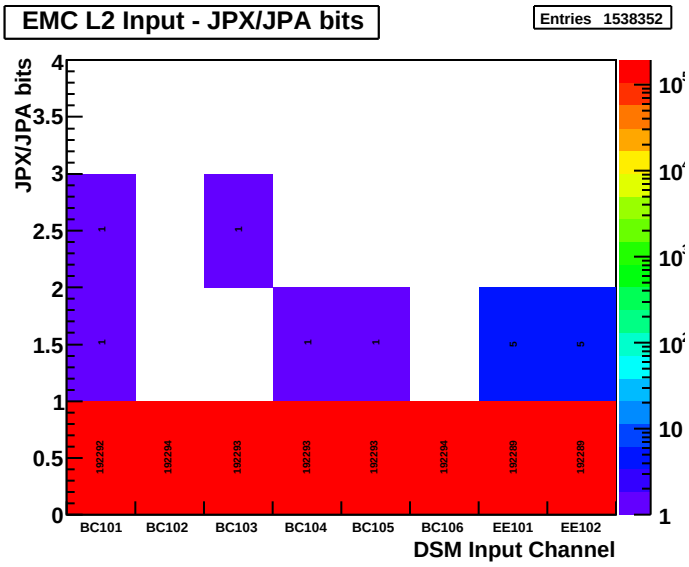

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

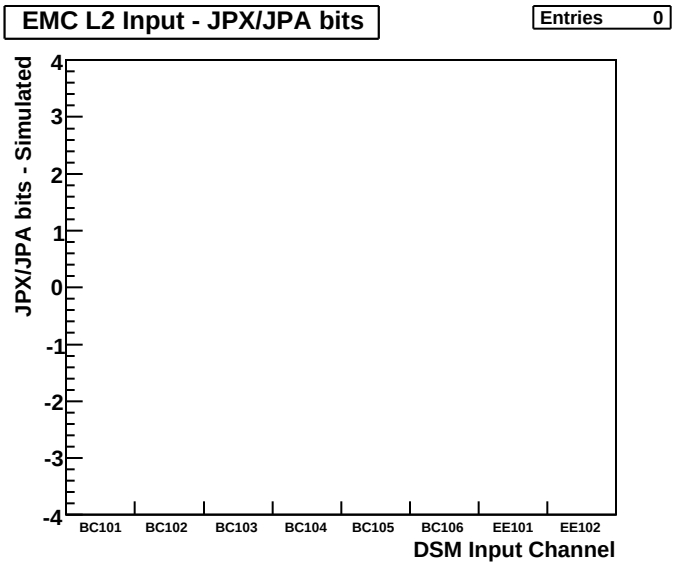

Endcap EMC L1 Input - High Eta Sum
Entries 2307528
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

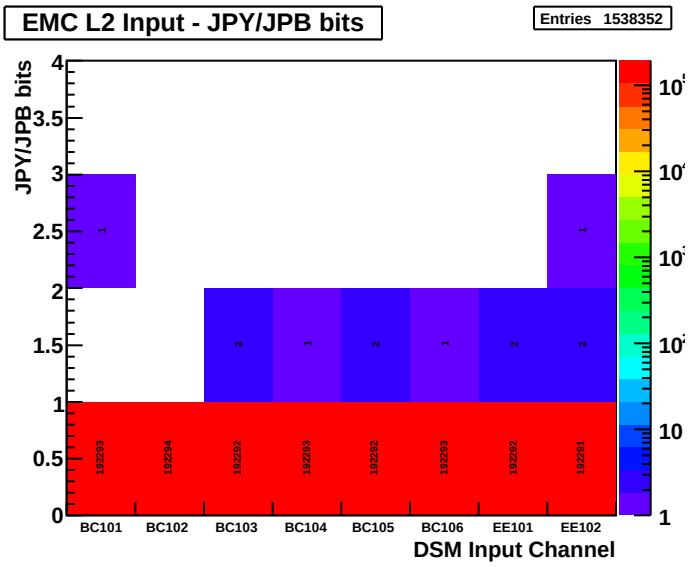

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

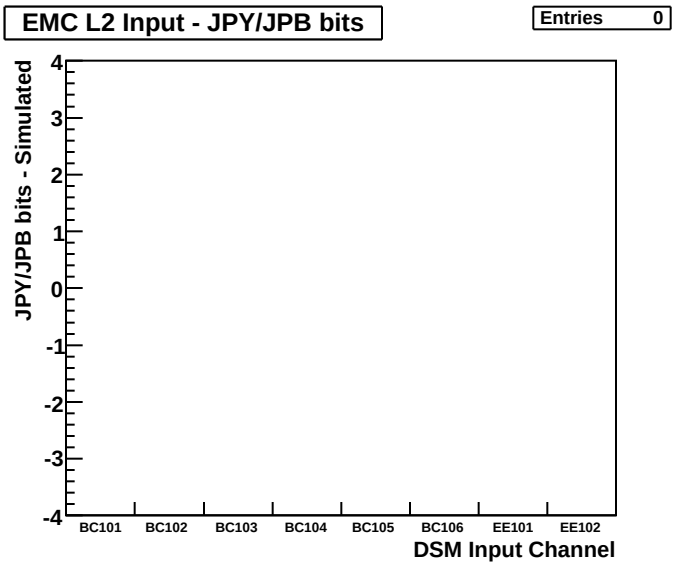

Endcap EMC L1 Input - High Tower Bits
Entries 2307528
High Tower Bits
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

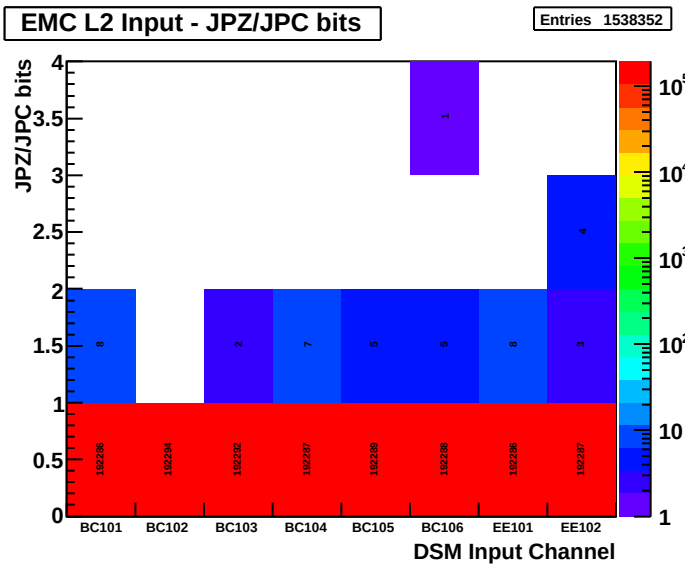

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

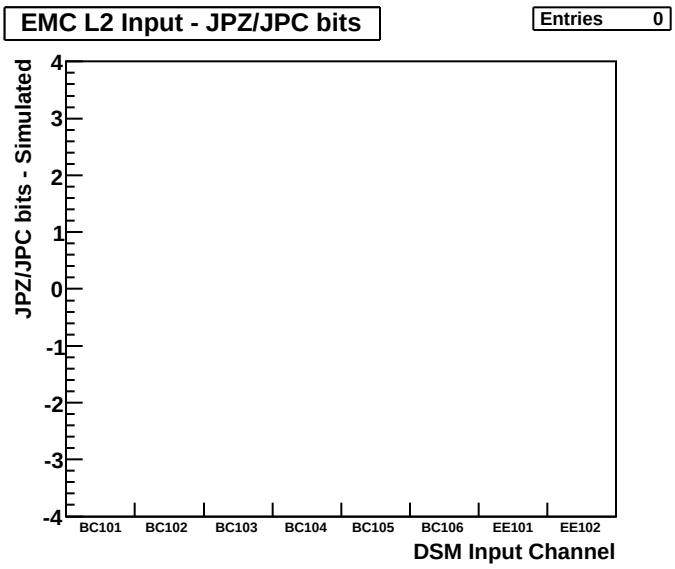

EMC L2 Input - JPX/JPA bits
Entries 1538352
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

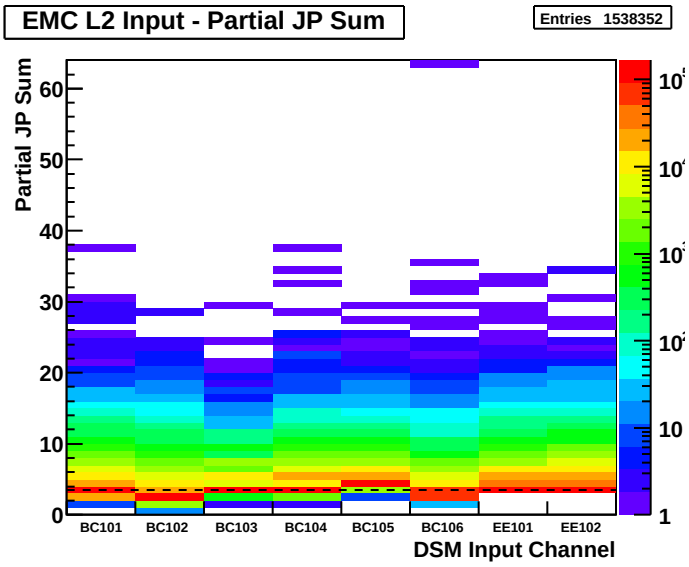

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

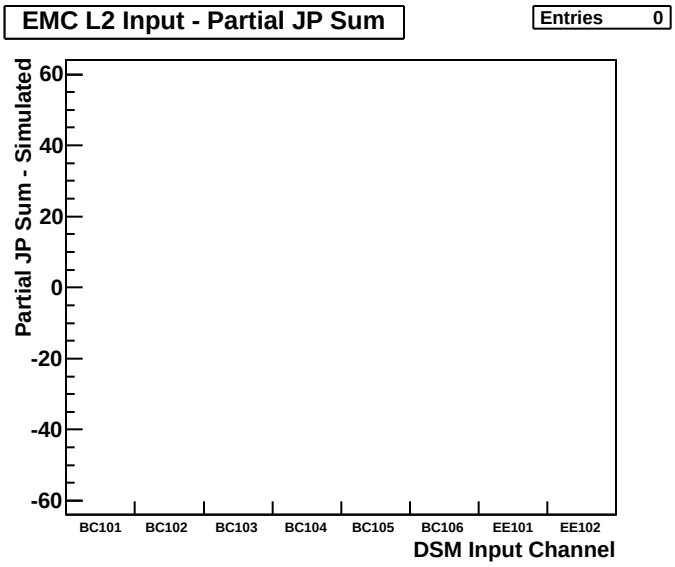

EMC L2 Input - JPY/JPB bits
Entries 1538352
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

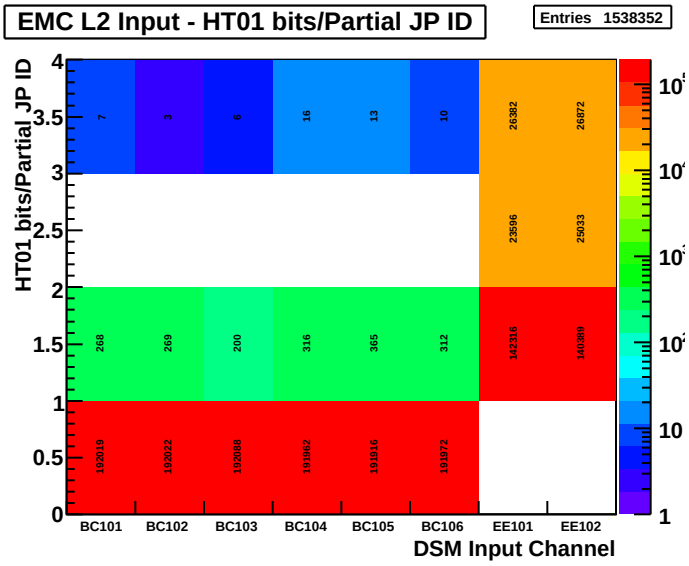

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

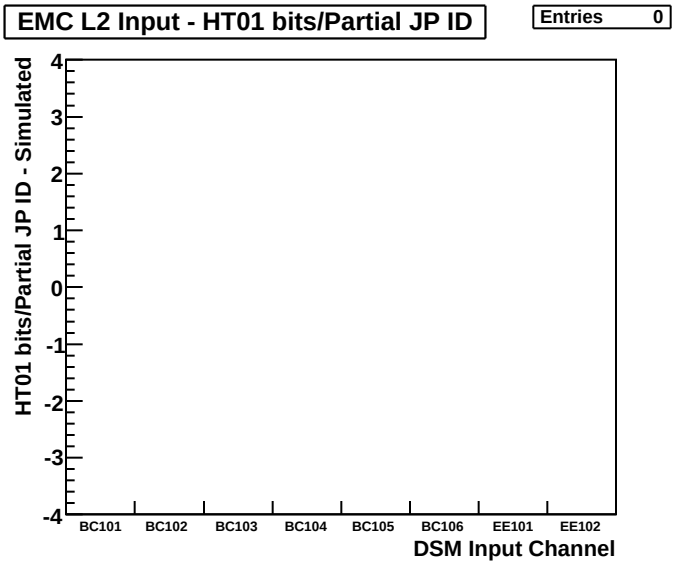

EMC L2 Input - JPZ/JPC bits
Entries 1538352
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

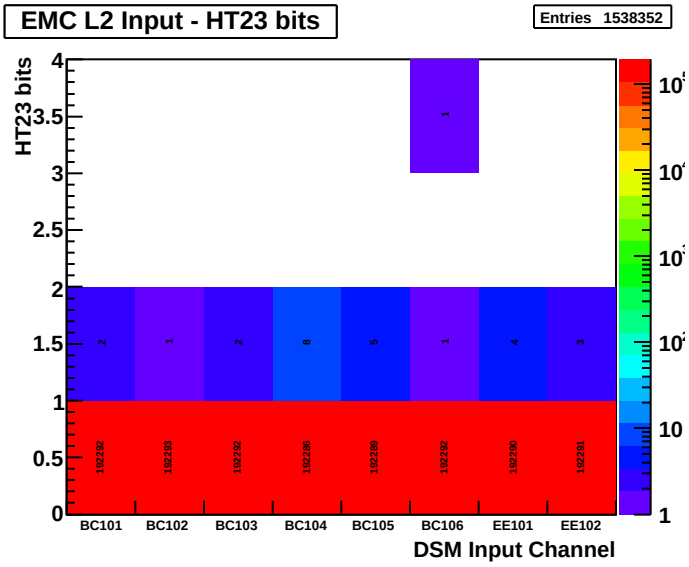

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

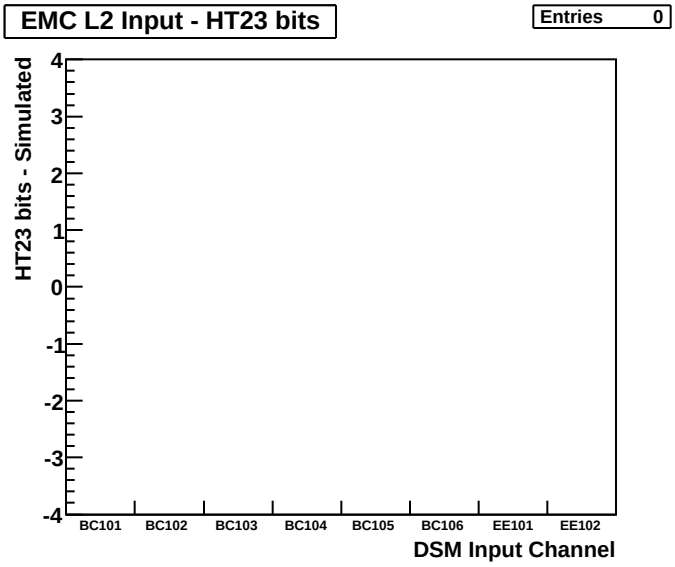

EMC L2 Input - Partial JP Sum
Entries 1538352
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

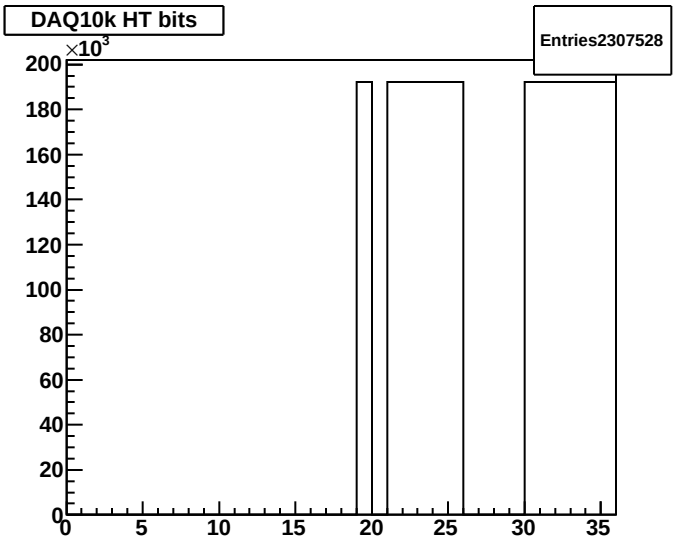

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

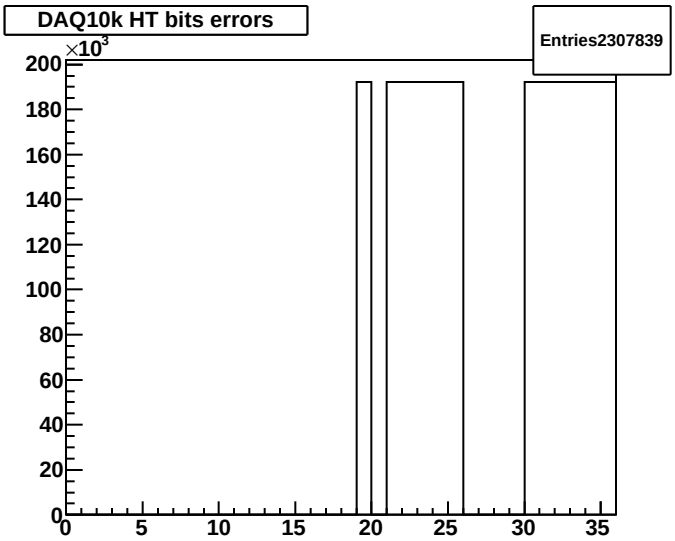

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1538352
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

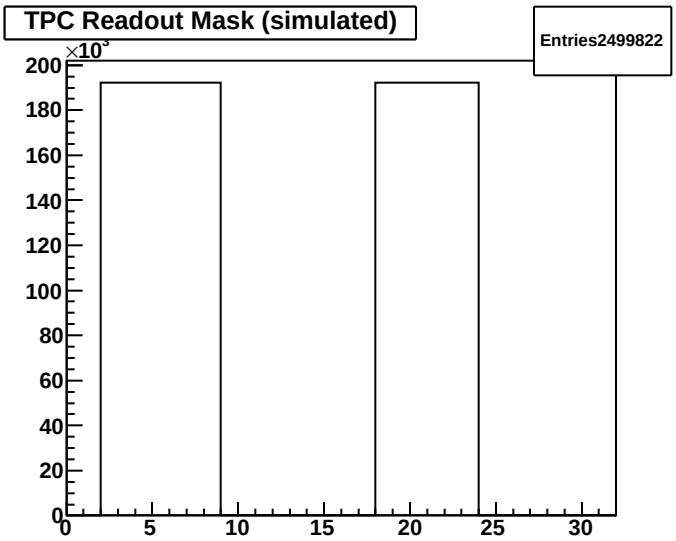

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

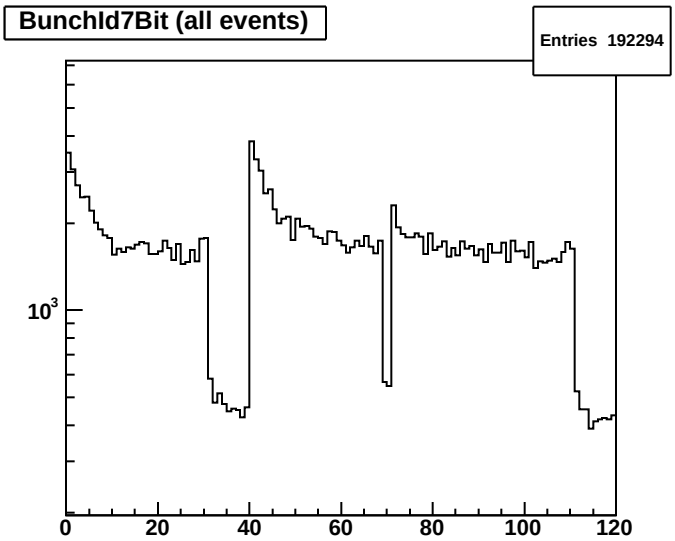

EMC L2 Input - HT23 bits
Entries 1538352
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

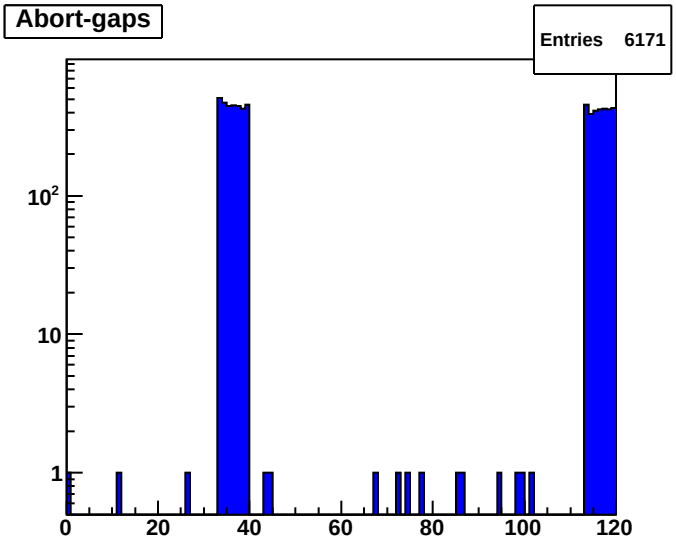

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

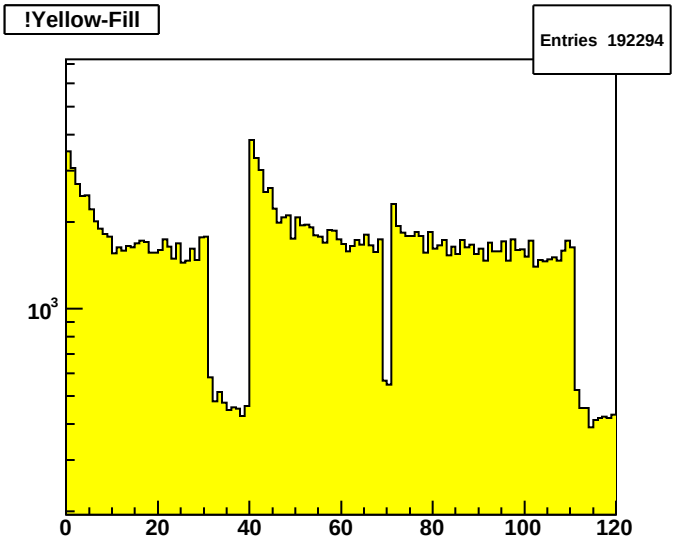

DAQ10k HT bits
Entries2307528
×10^3
200
180
160
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

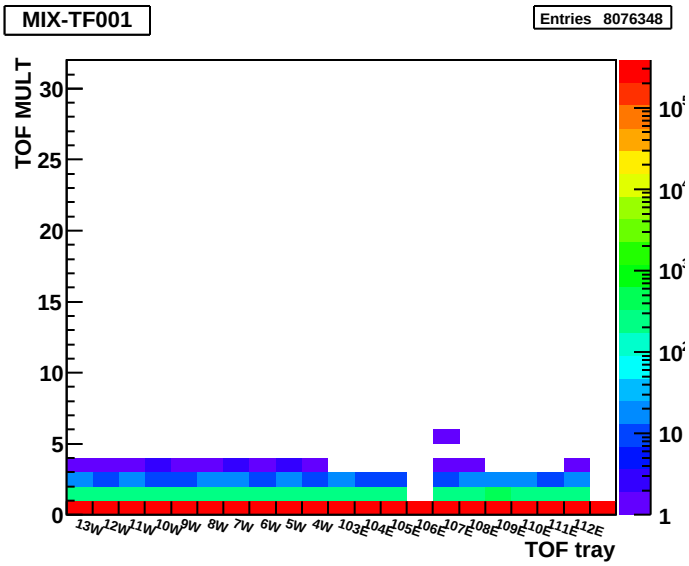

DAQ10k HT bits errors
Entries2307839
×10^3
200
180
160
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

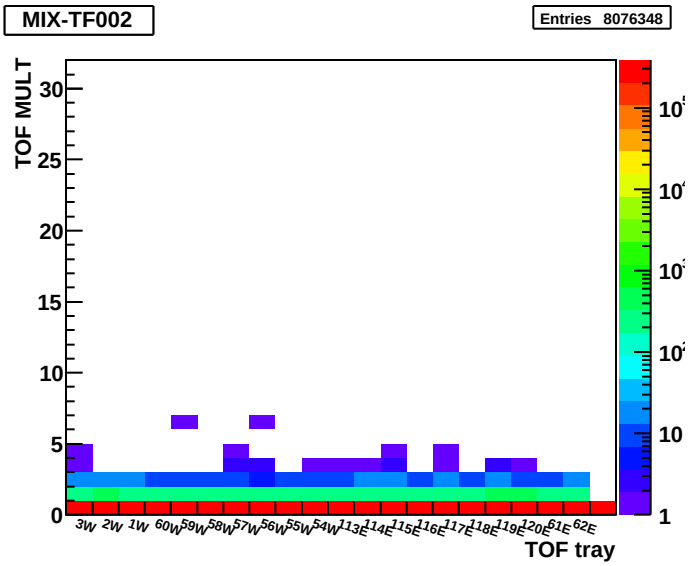

TPC Readout Mask (simulated)
Entries2499822
×10^3
200
180
160
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30

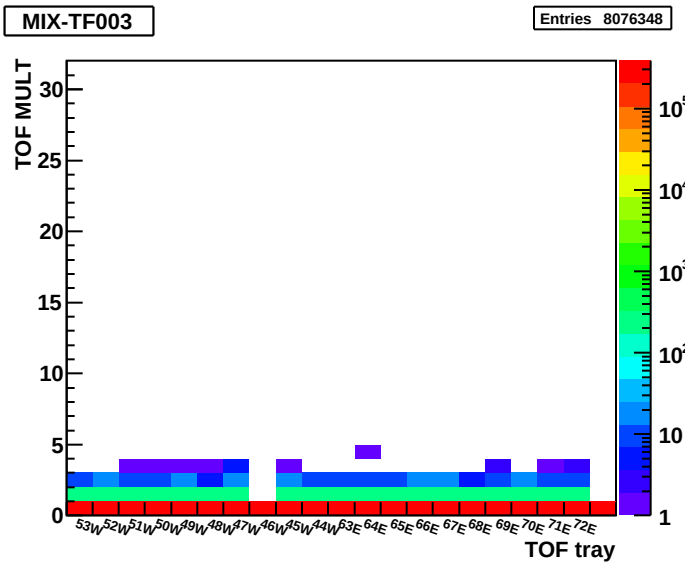

BunchId7Bit (all events)
Entries 192294
10^3
0
20
40
60
80
100
120

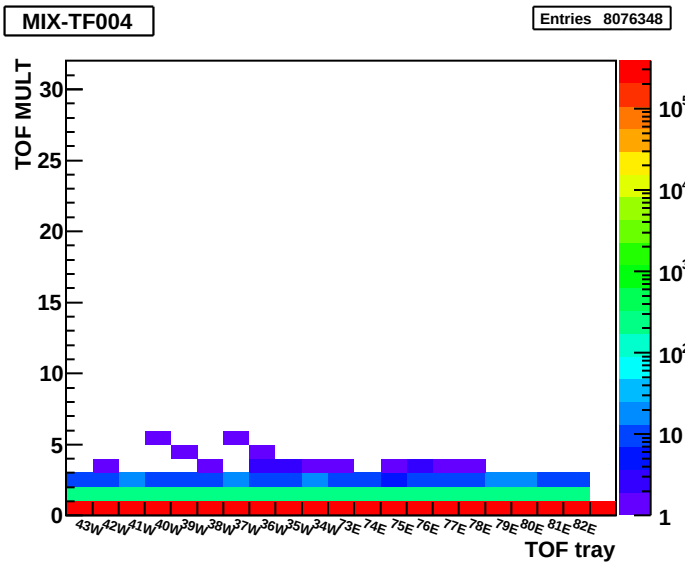

Abort-gaps
Entries 6171
10^2
10
1
0
20
40
60
80
100
120

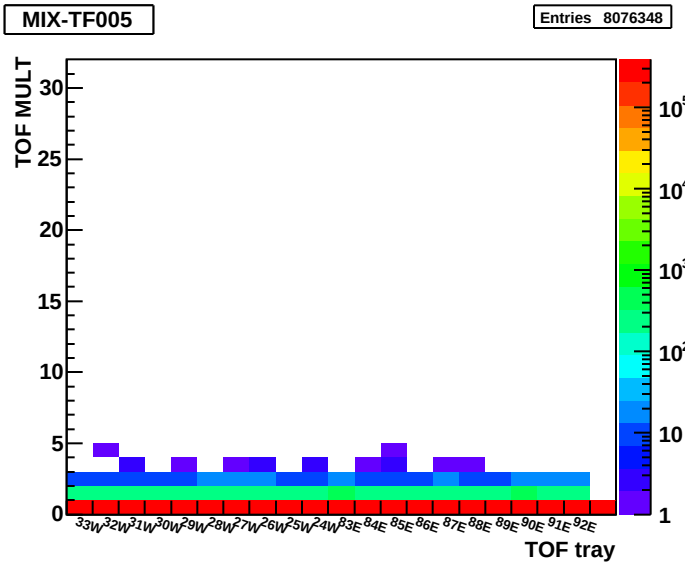

!Yellow-Fill
Entries 192294
10^3
0
20
40
60
80
100
120

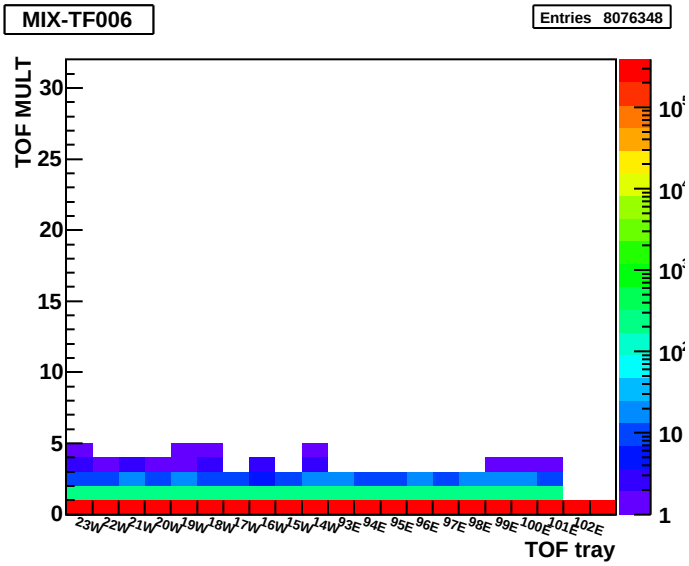

MIX-TF001
Entries 8076348
TOF MULT
TOF tray

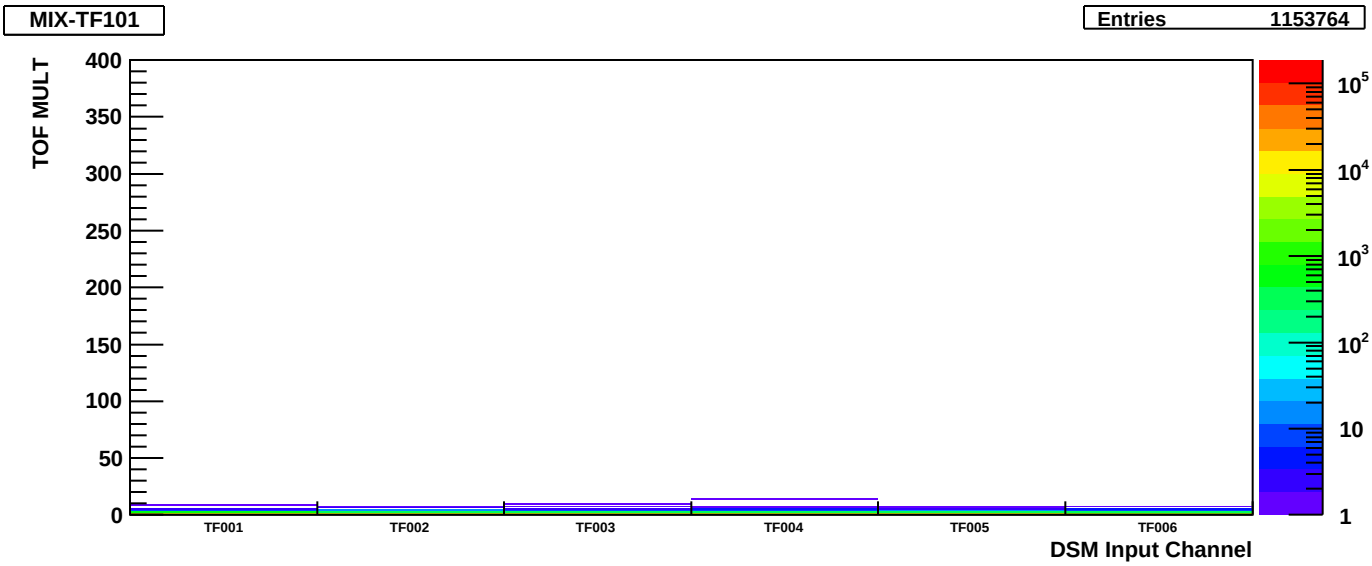

MIX-TF002
Entries 8076348
TOF MULT
TOF tray

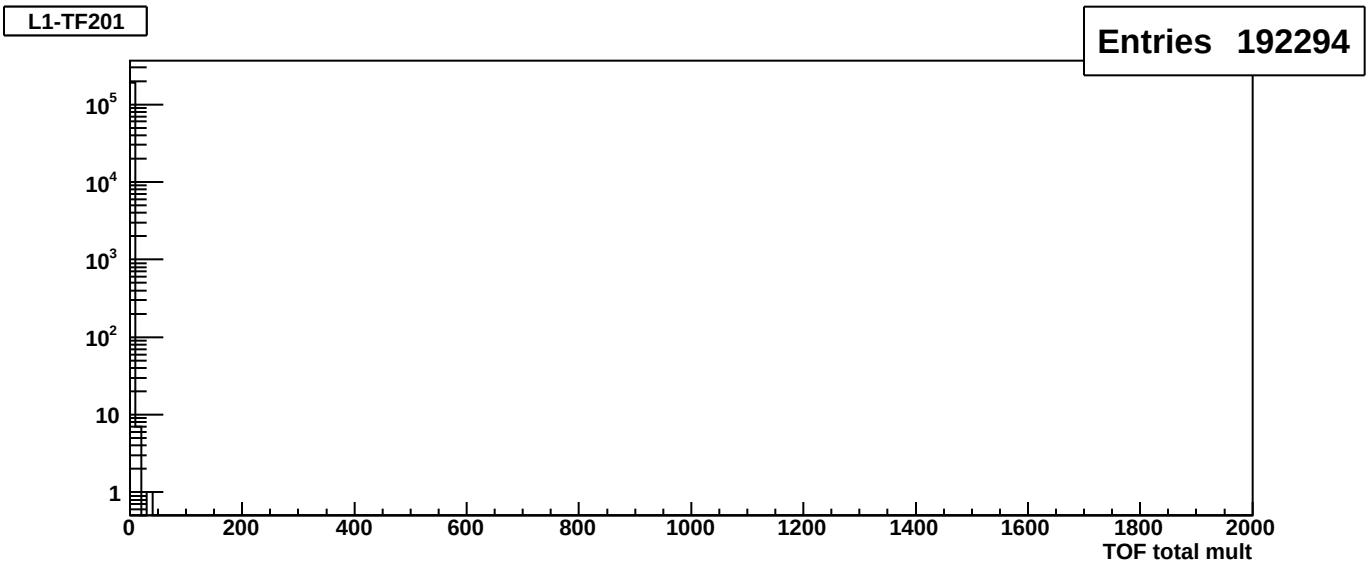

MIX-TF003
Entries 8076348
TOF MULT
TOF tray

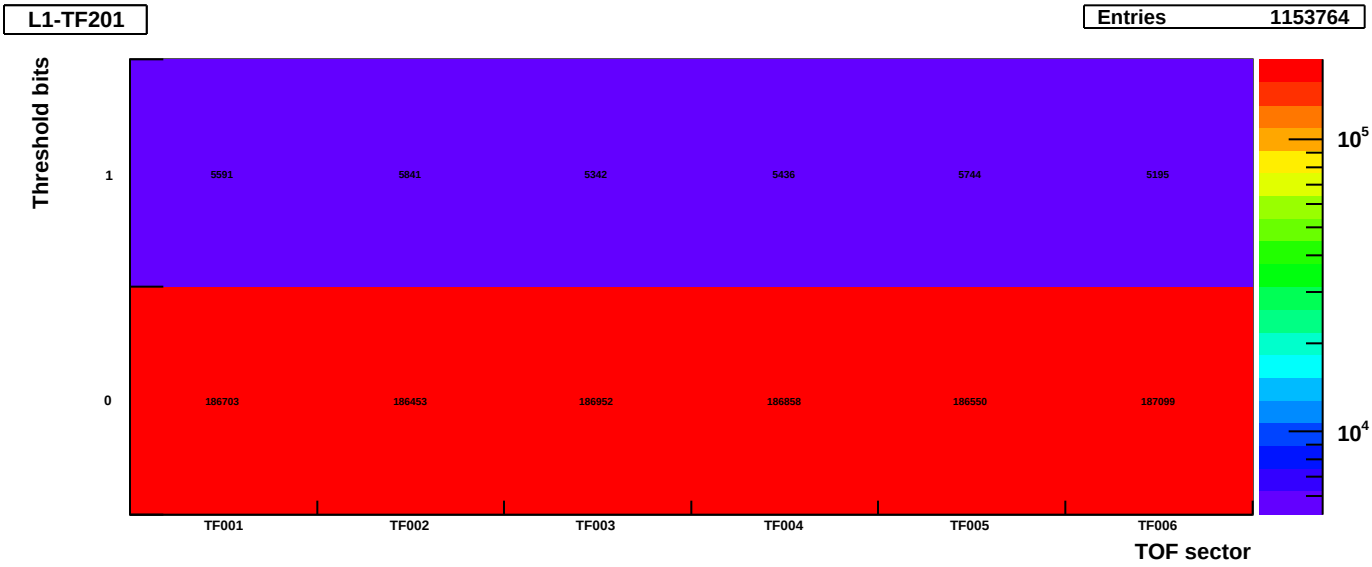

MIX-TF004
Entries 8076348
TOF MULT
TOF tray

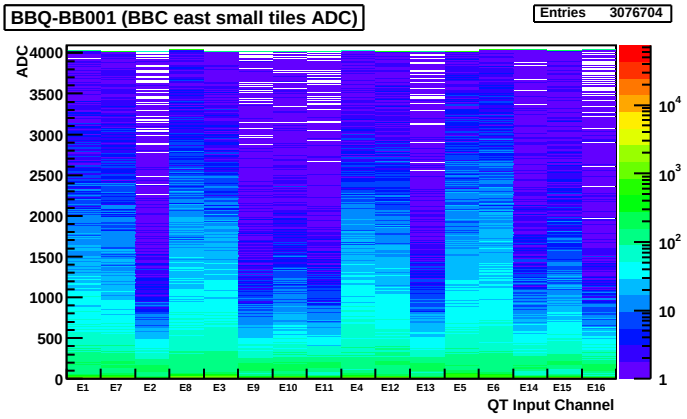

MIX-TF005
Entries 8076348
TOF MULT
TOF tray

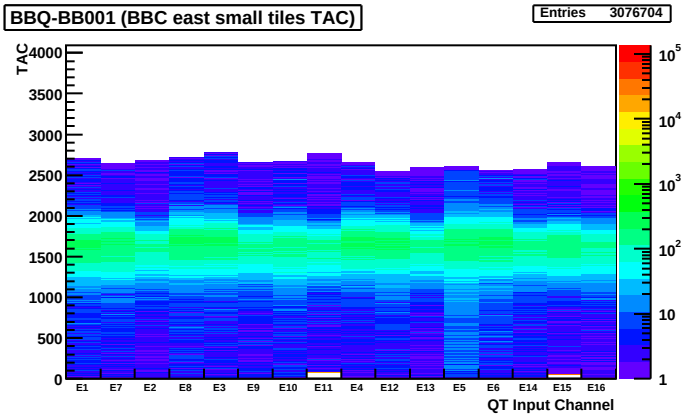

MIX-TF006
Entries 8076348
TOF MULT
TOF tray

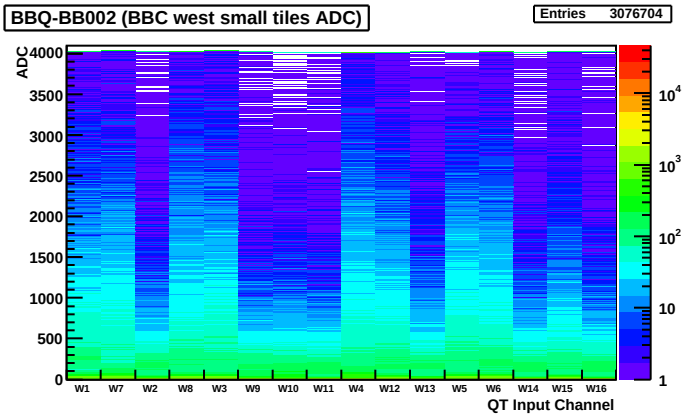

MIX-TF101
Entries 1153764
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

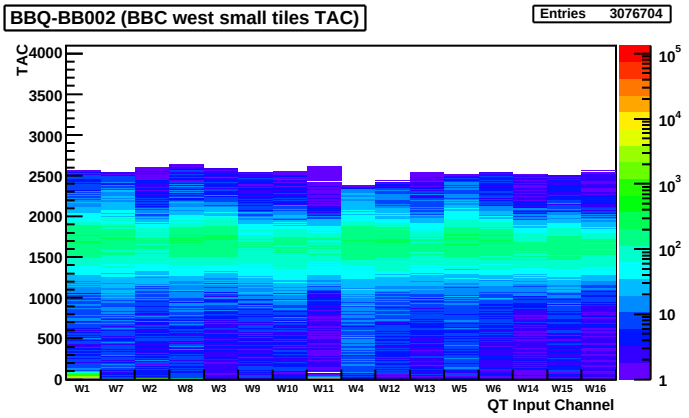

L1-TF201
Entries 192294
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

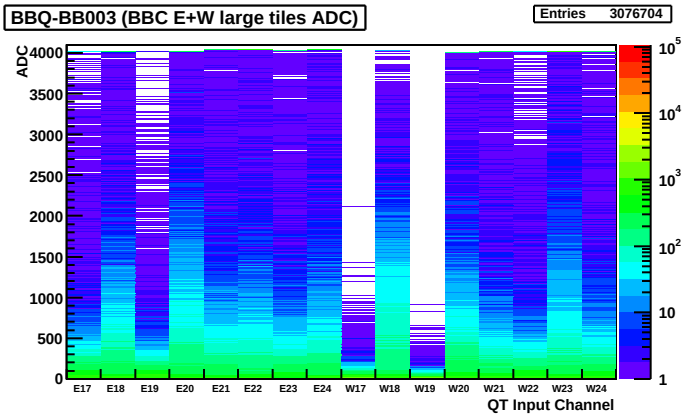

L1-TF201
Entries 1153764
Threshold bits
1
0
5591
5841
5342
5436
5744
5195
186703
186453
186952
186858
186550
187099
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4

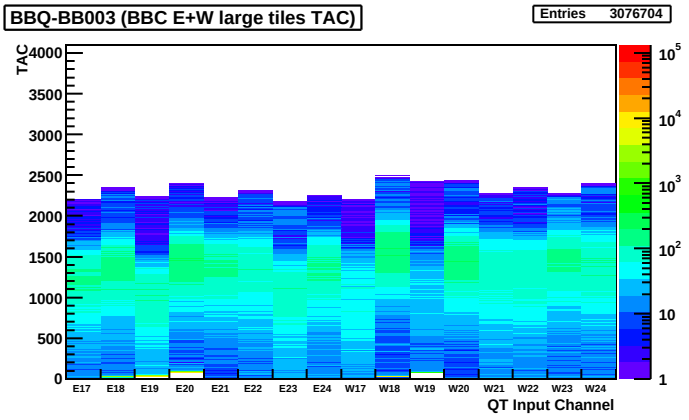

BBQ-BB001 (BBC east small tiles ADC)
Entries 3076704
ADC
QT Input Channel

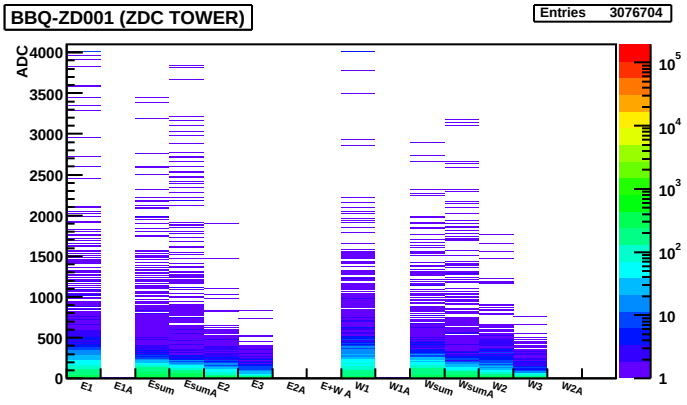

BBQ-BB001 (BBC east small tiles TAC)
Entries 3076704
TAC
QT Input Channel

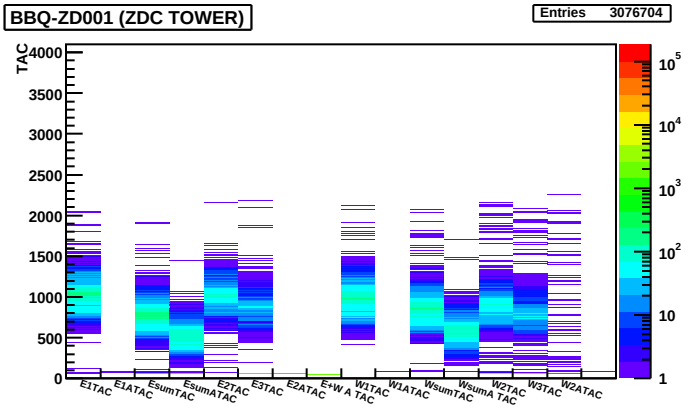

BBQ-BB002 (BBC west small tiles ADC)
Entries 3076704
ADC
QT Input Channel

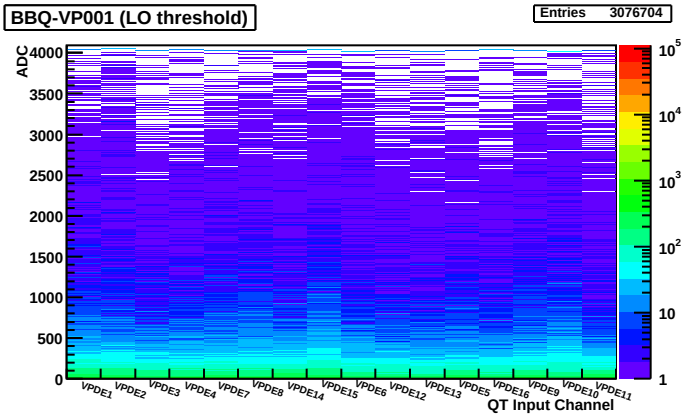

BBQ-BB002 (BBC west small tiles TAC)
Entries 3076704
TAC
QT Input Channel

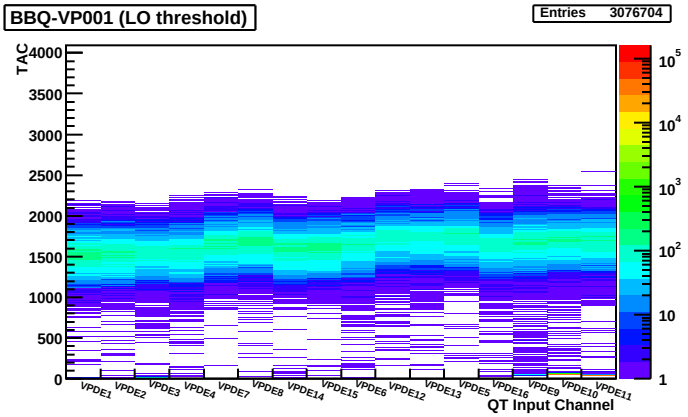

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3076704
ADC
QT Input Channel

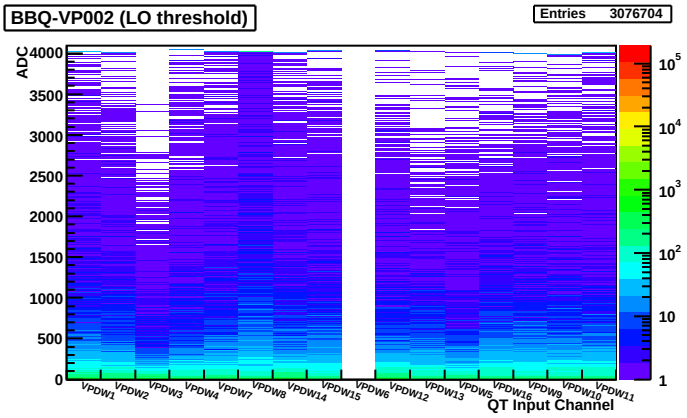

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3076704
TAC
QT Input Channel

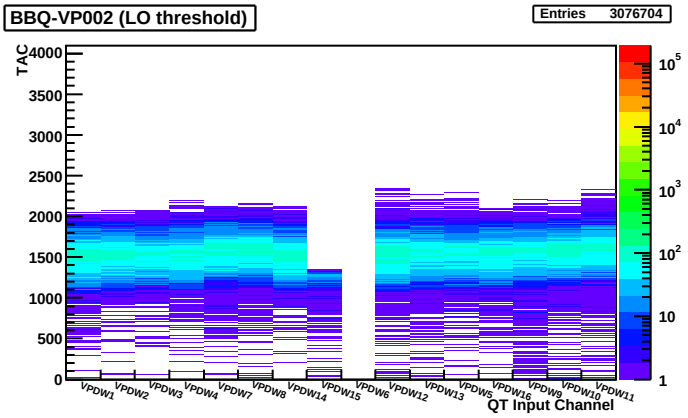

BBQ-ZD001 (ZDC TOWER)
Entries 3076704
ADC

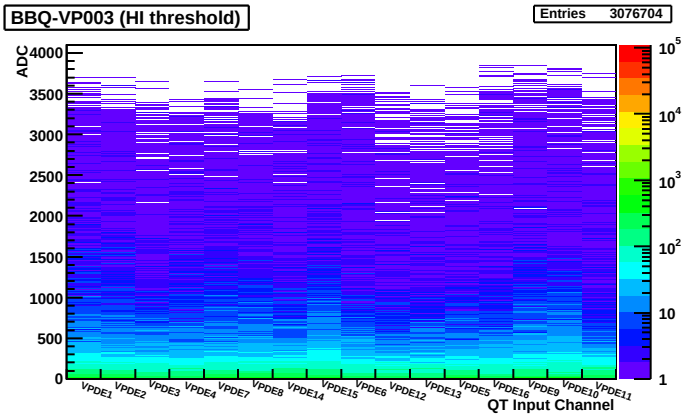

BBQ-ZD001 (ZDC TOWER)
Entries 3076704
TAC

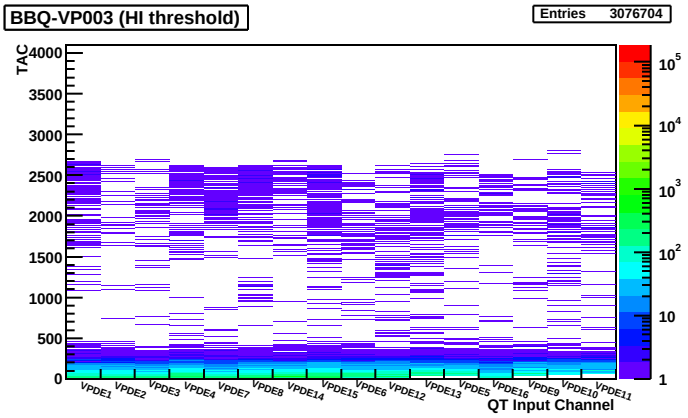

BBQ-VP001 (LO threshold)
Entries 3076704
ADC
QT Input Channel

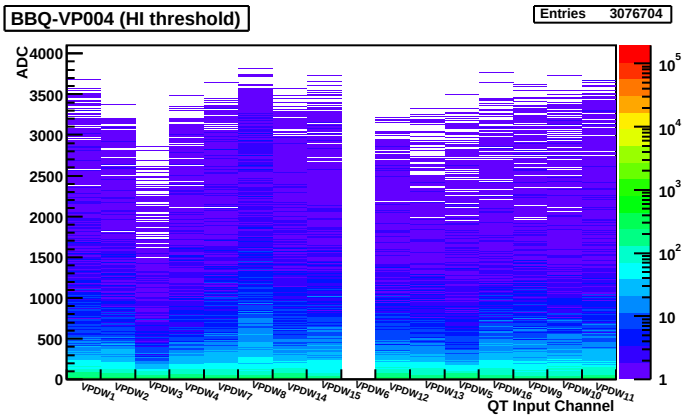

BBQ-VP001 (LO threshold)
Entries 3076704
TAC
QT Input Channel

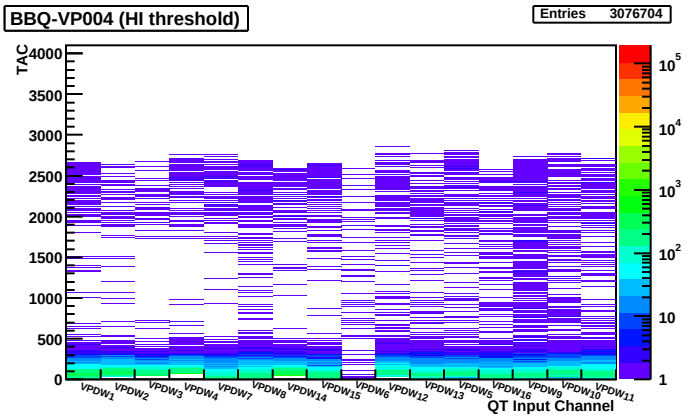

BBQ-VP002 (LO threshold)
Entries 3076704
ADC
QT Input Channel

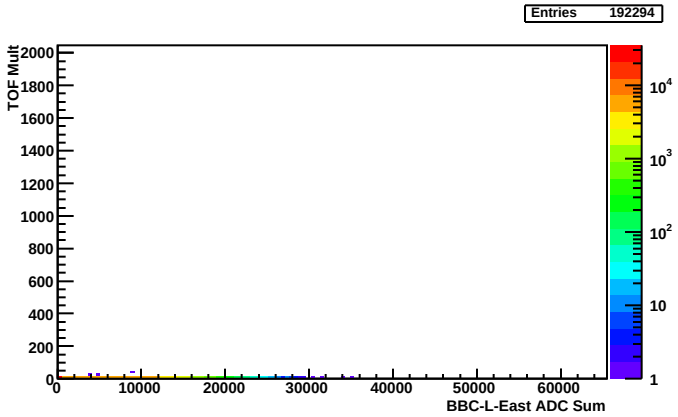

BBQ-VP002 (LO threshold)
Entries 3076704
TAC
QT Input Channel

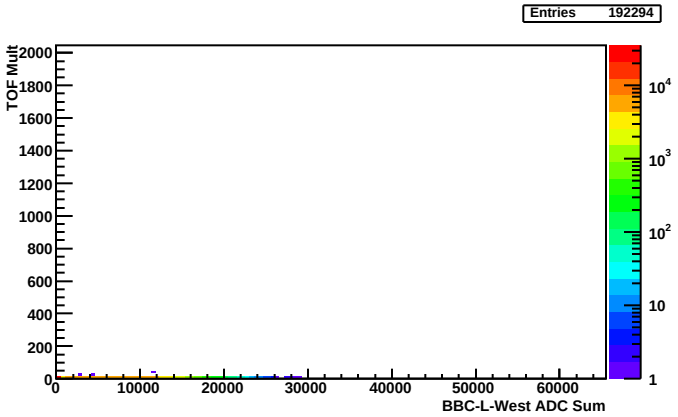

BBQ-VP003 (HI threshold)
Entries 3076704
ADC
QT Input Channel

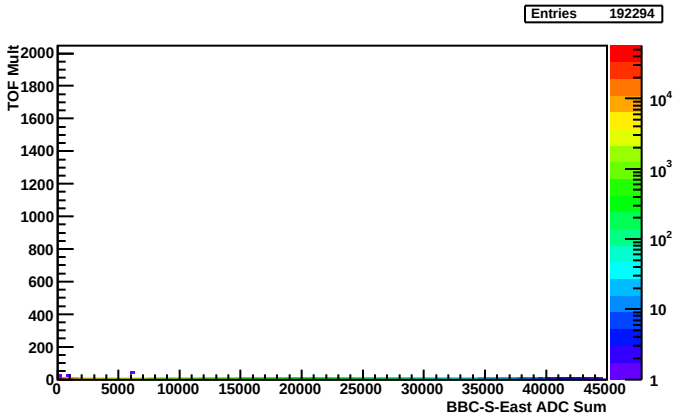

BBQ-VP003 (HI threshold)
Entries 3076704
TAC
QT Input Channel

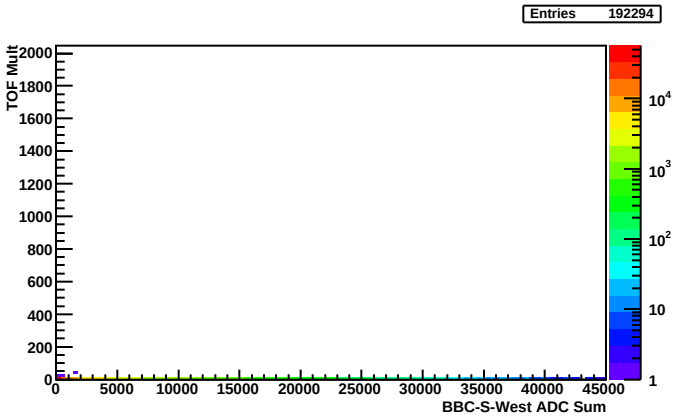

BBQ-VP004 (HI threshold)
Entries 3076704
ADC
QT Input Channel

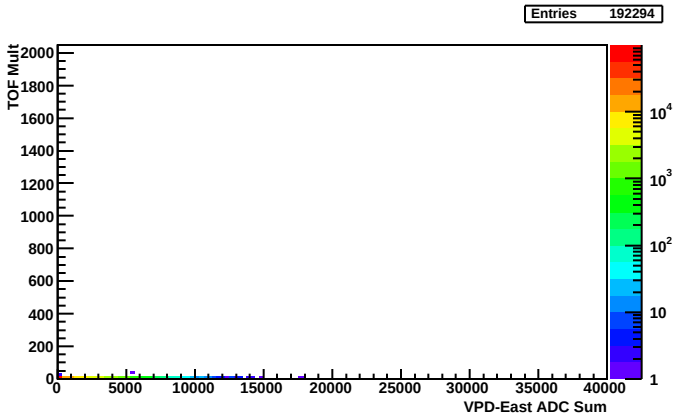

BBQ-VP004 (HI threshold)
Entries 3076704
TAC
QT Input Channel

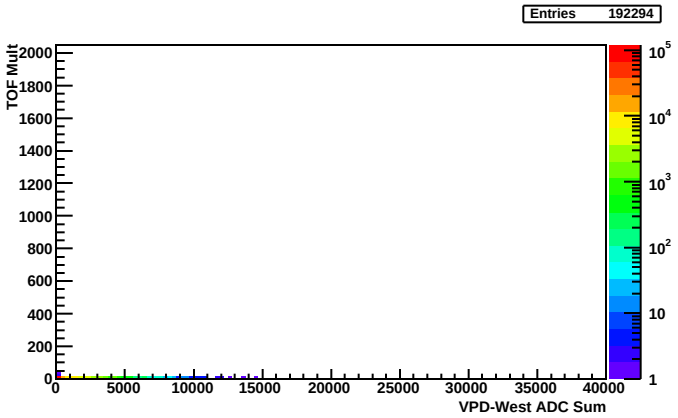

Entries 192294
TOF Mult
BBC-L-East ADC Sum

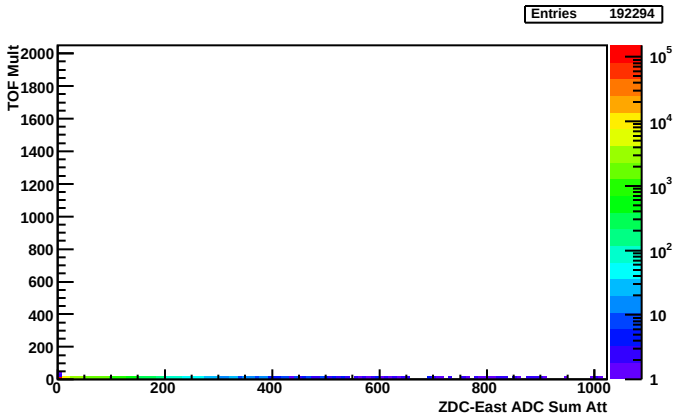

Entries 192294
TOF Mult
BBC-L-West ADC Sum

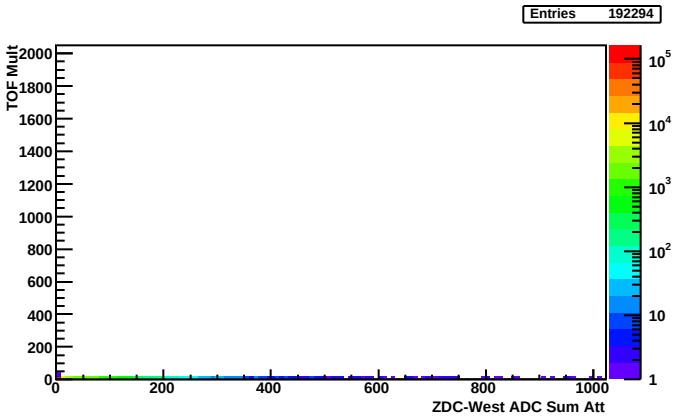

Entries 192294
TOF Mult
BBC-S-East ADC Sum

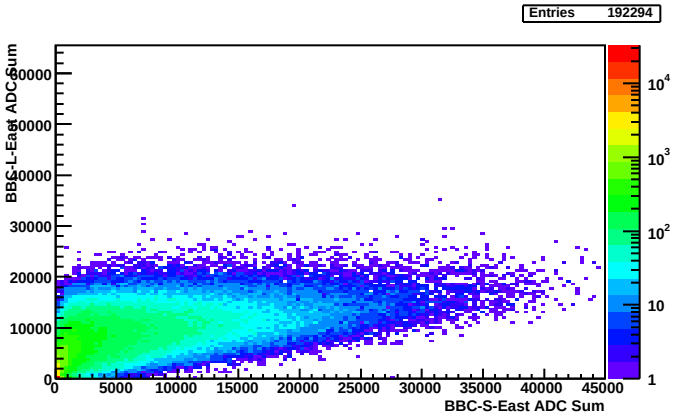

Entries 192294
TOF Mult
BBC-S-West ADC Sum

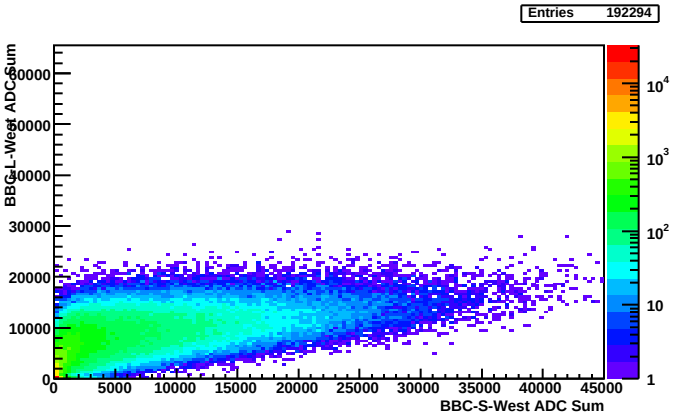

Entries 192294
TOF Mult
VPD-East ADC Sum

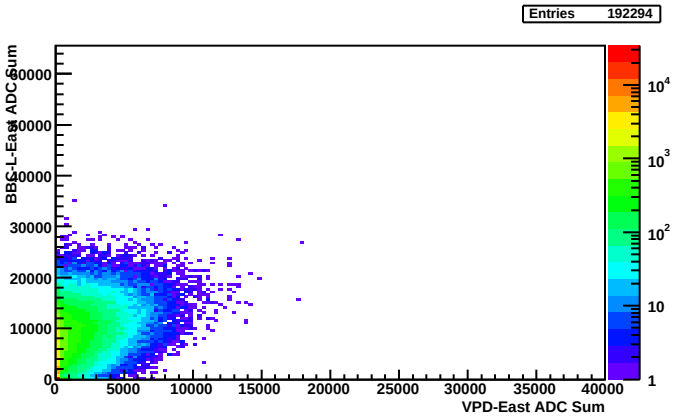

Entries 192294
TOF Mult
VPD-West ADC Sum

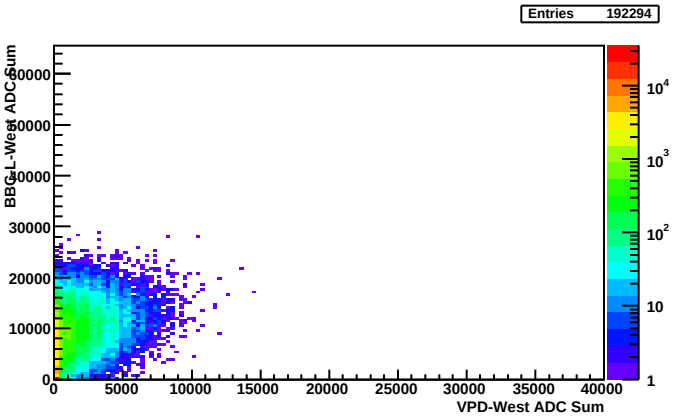

Entries 192294
TOF Mult
ZDC-East ADC Sum Att

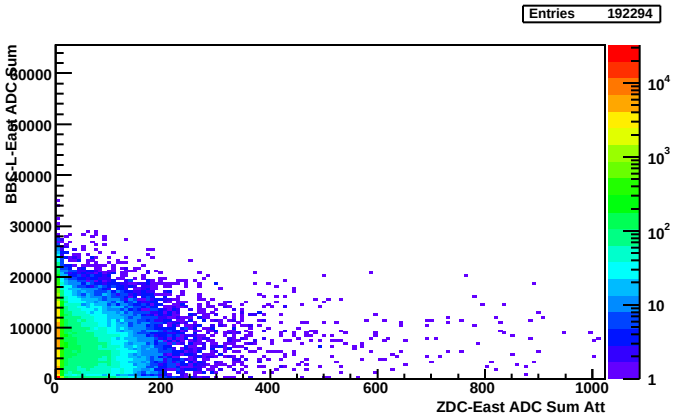

Entries 192294
TOF Mult
ZDC-West ADC Sum Att

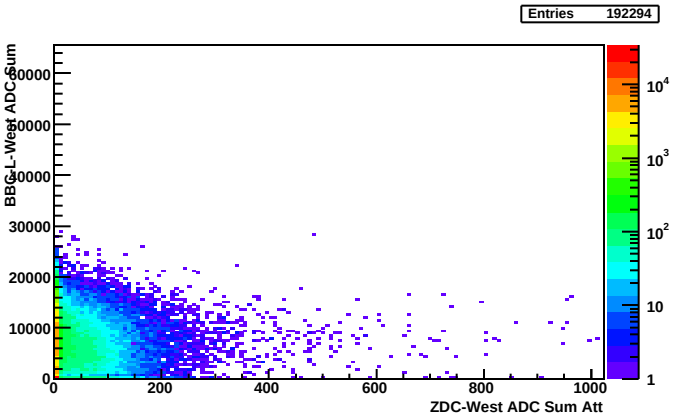

Entries 192294
BBC-L-East ADC Sum
BBC-S-East ADC Sum

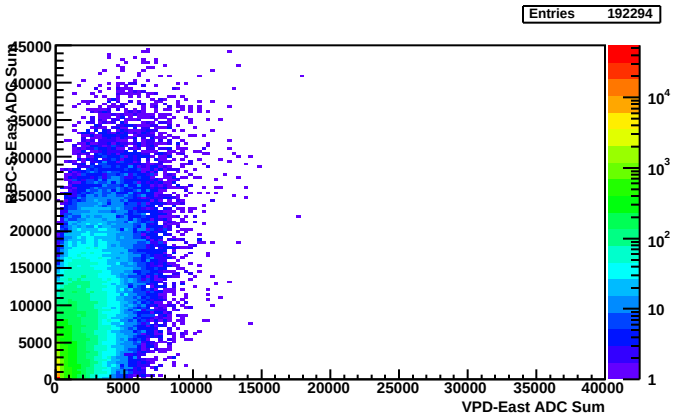

Entries 192294
BBC-L-West ADC Sum
BBC-S-West ADC Sum

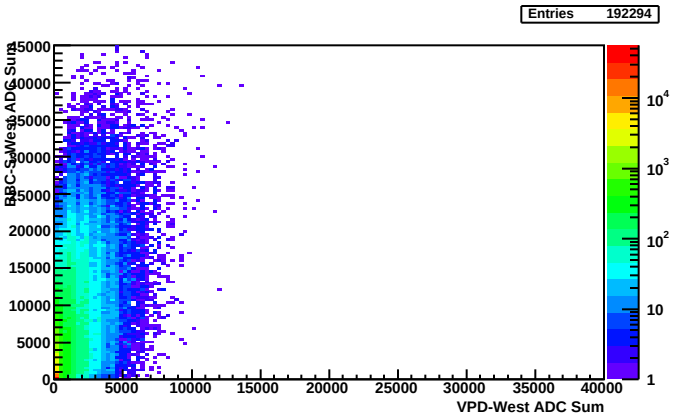

Entries 192294
BBC-L-East ADC Sum
VPD-East ADC Sum

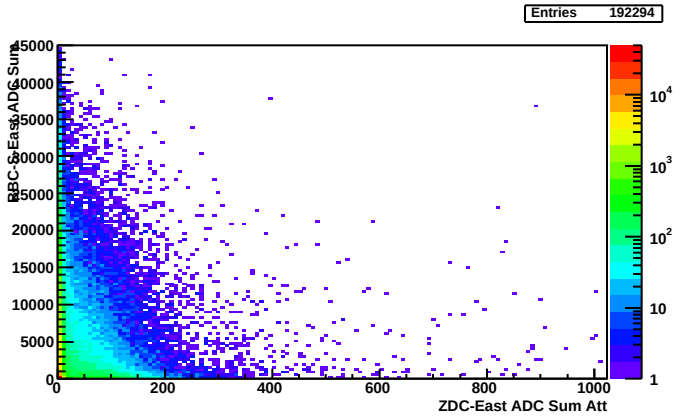

Entries 192294
BBC-L-West ADC Sum
VPD-West ADC Sum

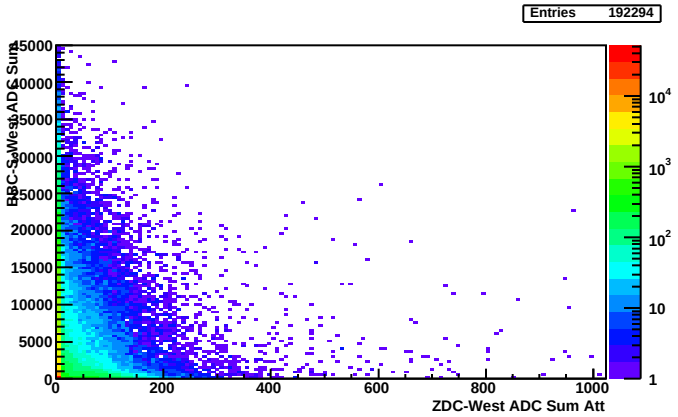

Entries 192294
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

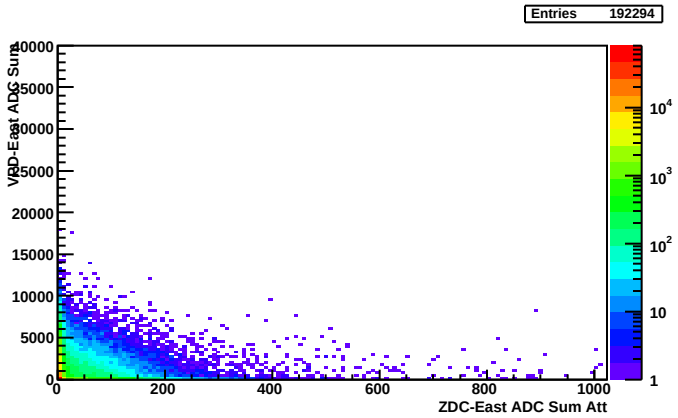

Entries 192294
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

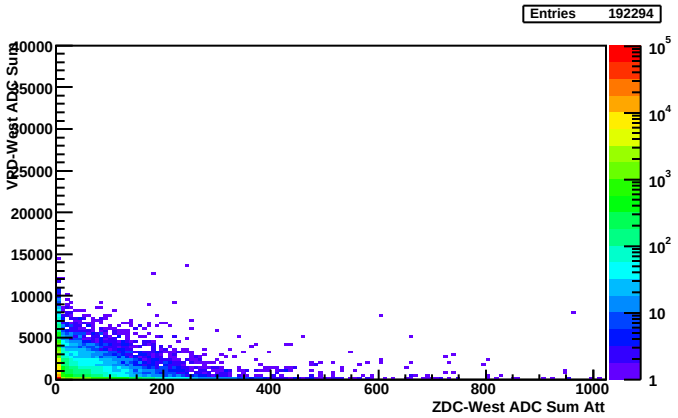

Entries 192294
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 192294
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 192294
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 192294
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 192294
VPD-East ADC Sum
ZDC-East ADC Sum Att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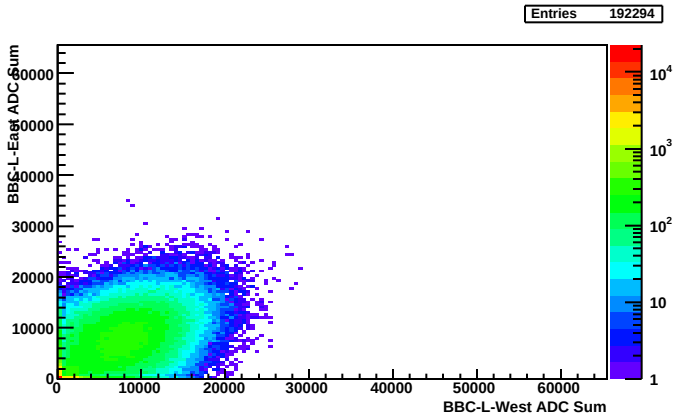
VPD-West ADC Sum
ZDC-West ADC Sum Att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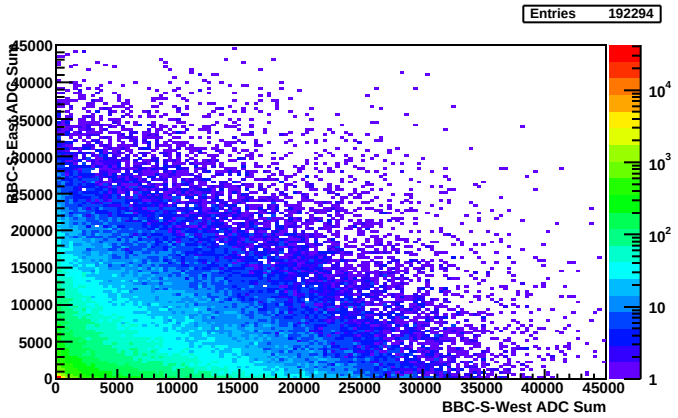
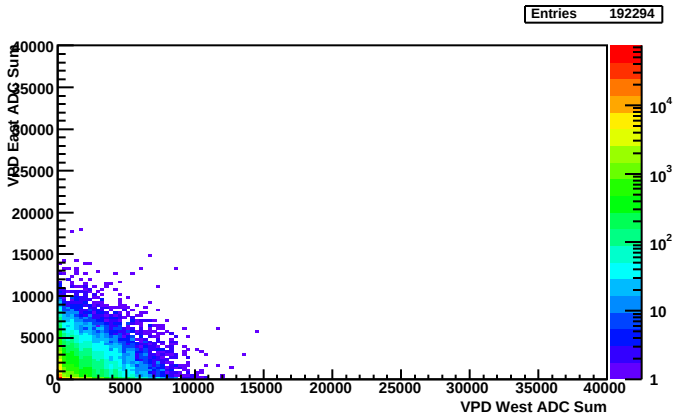
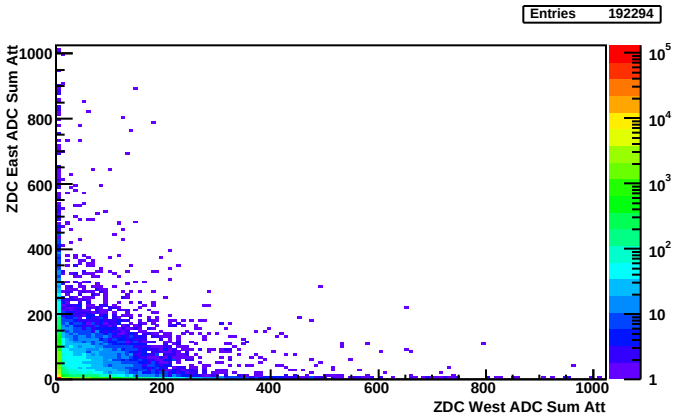
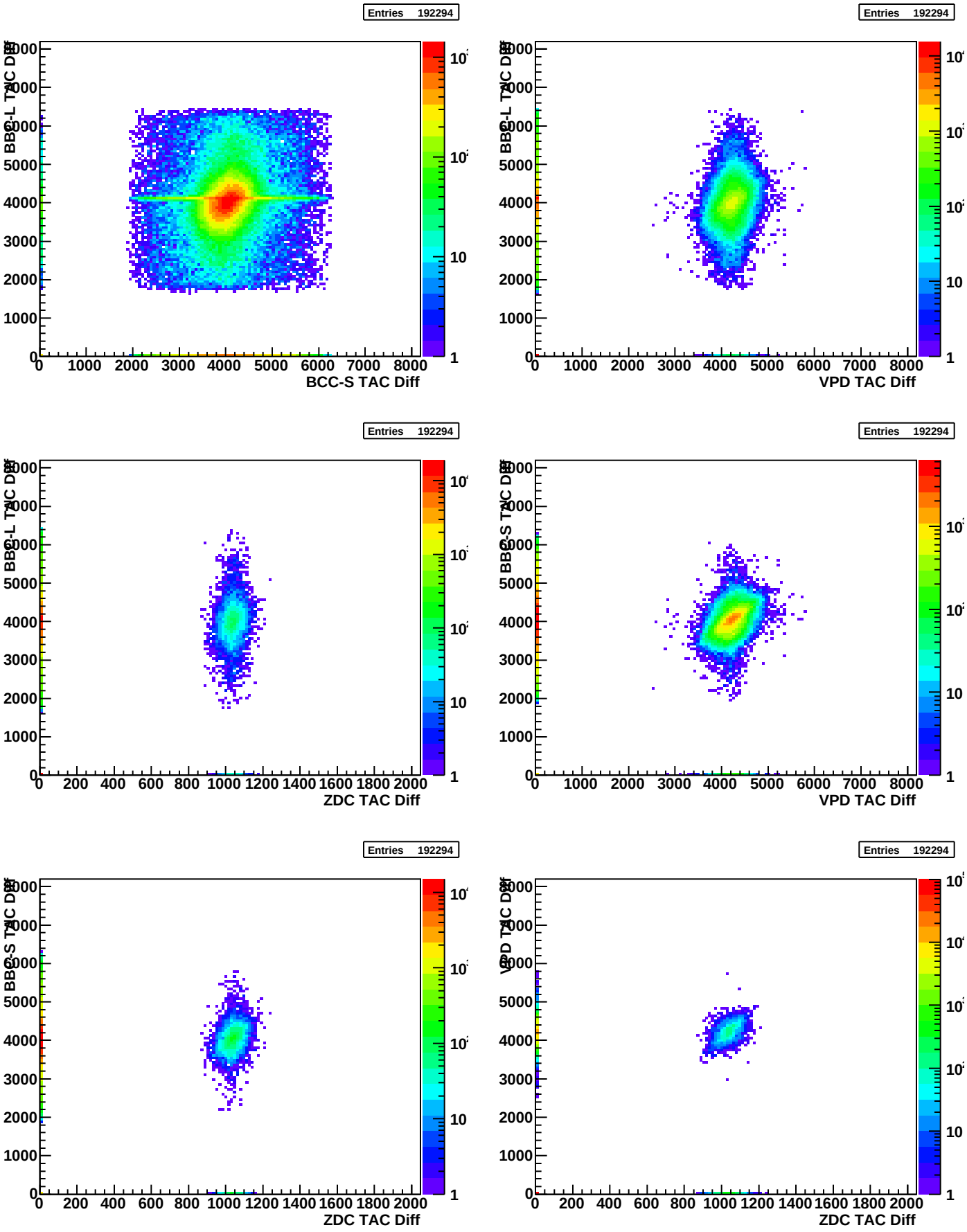
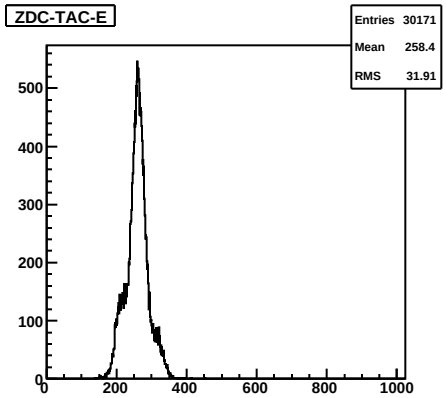
BBC-L-East ADC Sum
BBC-L-West ADC Sum

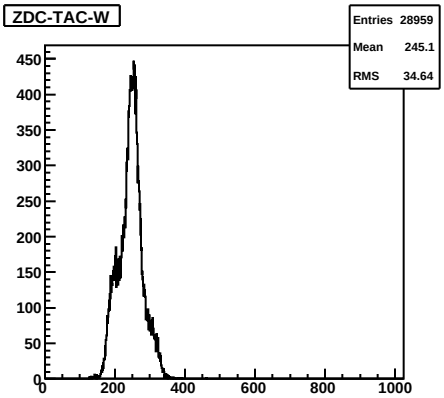

Entries 192294
BBC-S-East ADC Sum
BBC-S-West ADC Sum

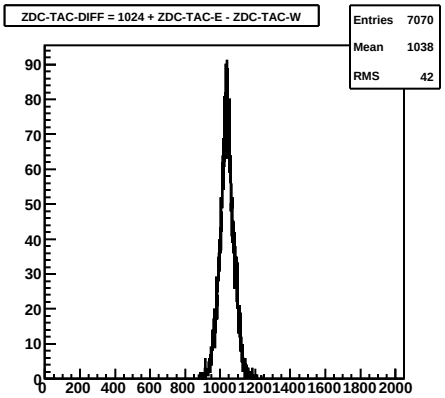

Entries 192294
VPD East ADC Sum
VPD West ADC Sum

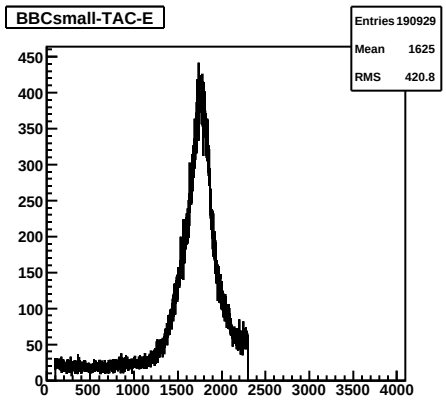

Entries 192294
ZDC East ADC Sum Att
ZDC West ADC Sum Att

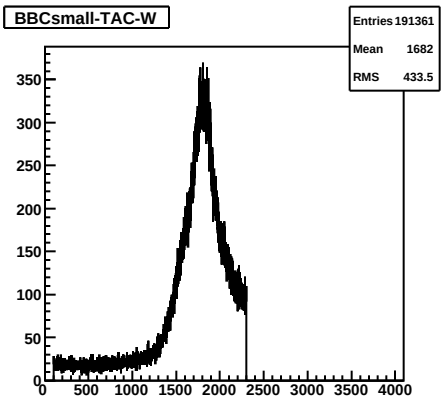

Entries 192294
BBC-L TAC Diff
BCC-S TAC Diff
Entries 192294
BBC-L TAC Diff
VPD TAC Diff
Entries 192294
BBC-L TAC Diff
ZDC TAC Diff
Entries 192294
BBC-S TAC Diff
VPD TAC Diff
Entries 192294
BBC-S TAC Diff
ZDC TAC Diff
Entries 192294
VPD TAC Diff
ZDC TAC Diff

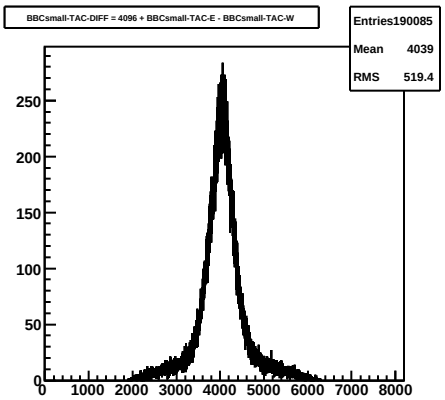

ZDC-TAC-E
Entries 30171
Mean 258.4
RMS 31.91

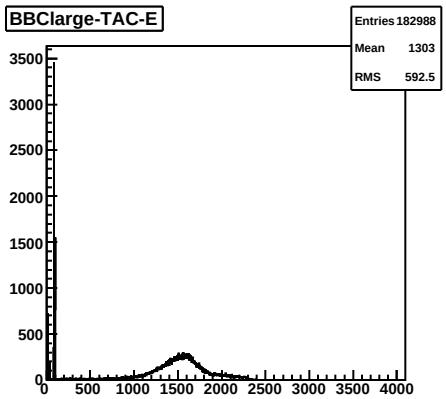

ZDC-TAC-W
Entries 28959
Mean 245.1
RMS 34.64

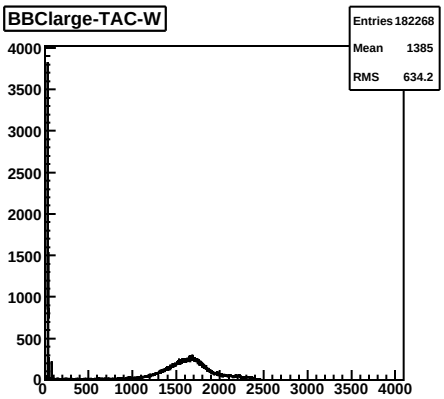

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 7070
Mean 1038
RMS 42

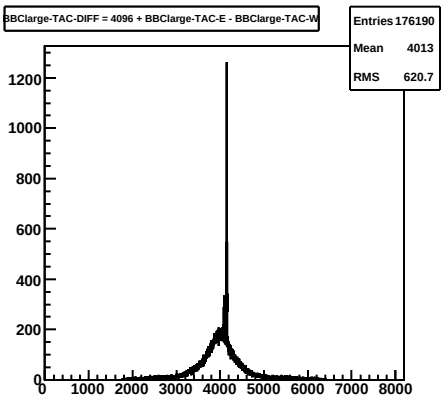

BBCsmall-TAC-E
Entries 190929
Mean 1625
RMS 420.8

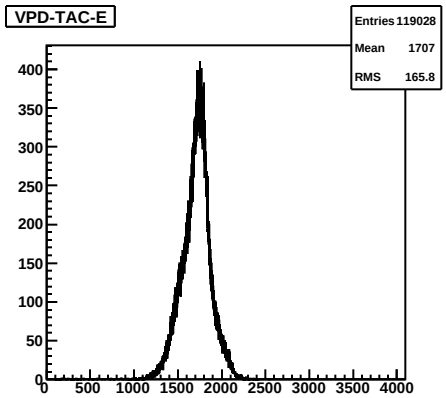

BBCsmall-TAC-W
Entries 191361
Mean 1682
RMS 433.5

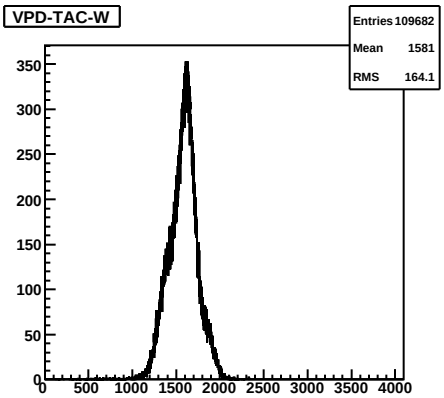

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 190085
Mean 4039
RMS 519.4

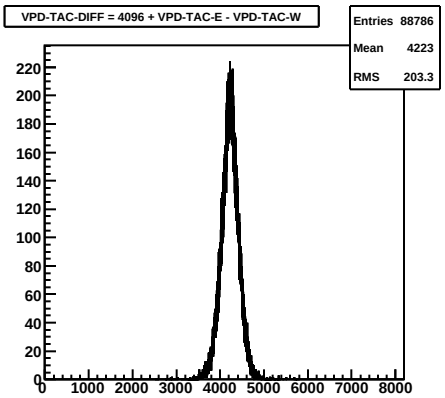

BBClarge-TAC-E
Entries 182988
Mean 1303
RMS 592.5

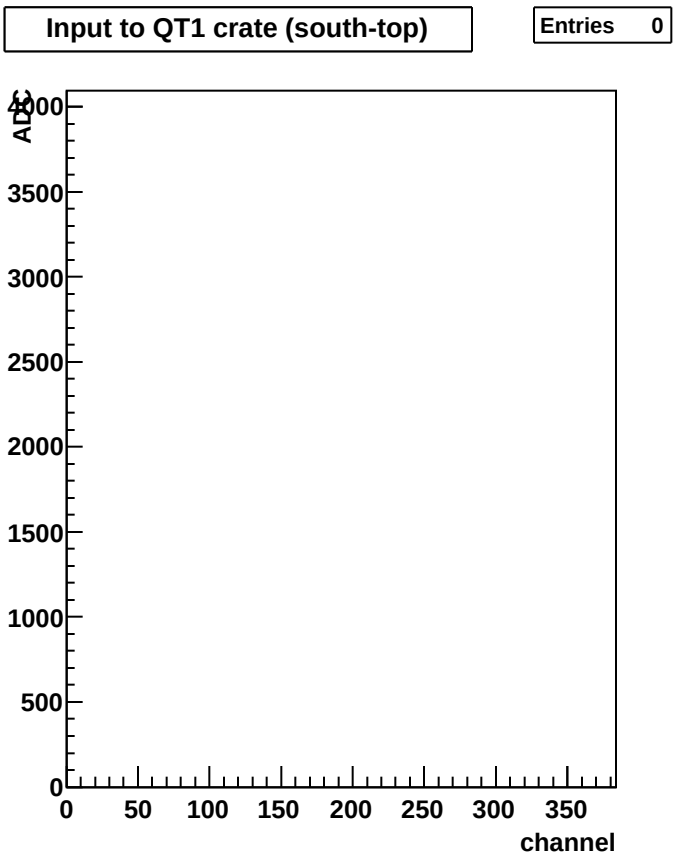

BBClarge-TAC-W
Entries 182268
Mean 1385
RMS 634.2

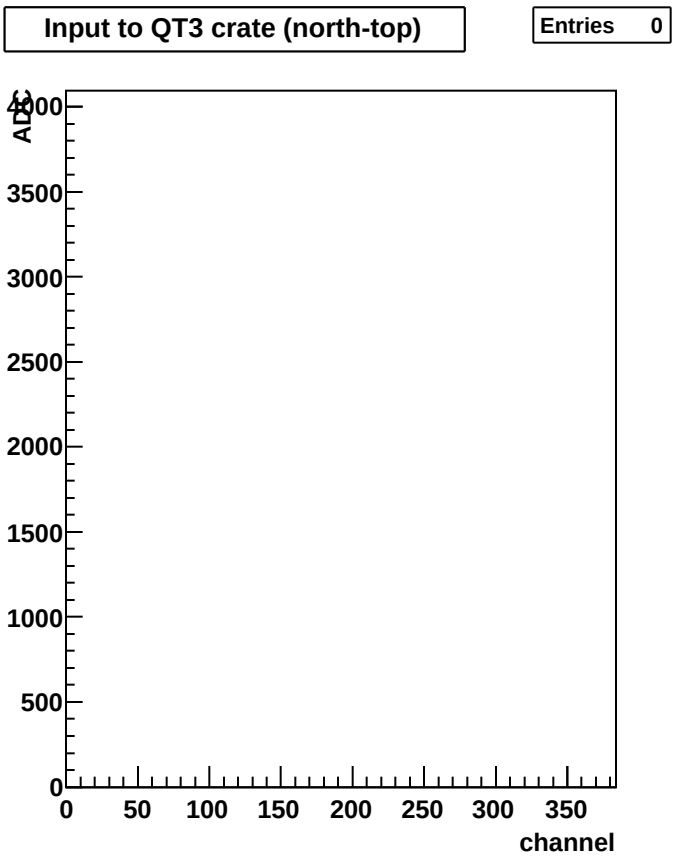

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 176190
Mean 4013
RMS 620.7

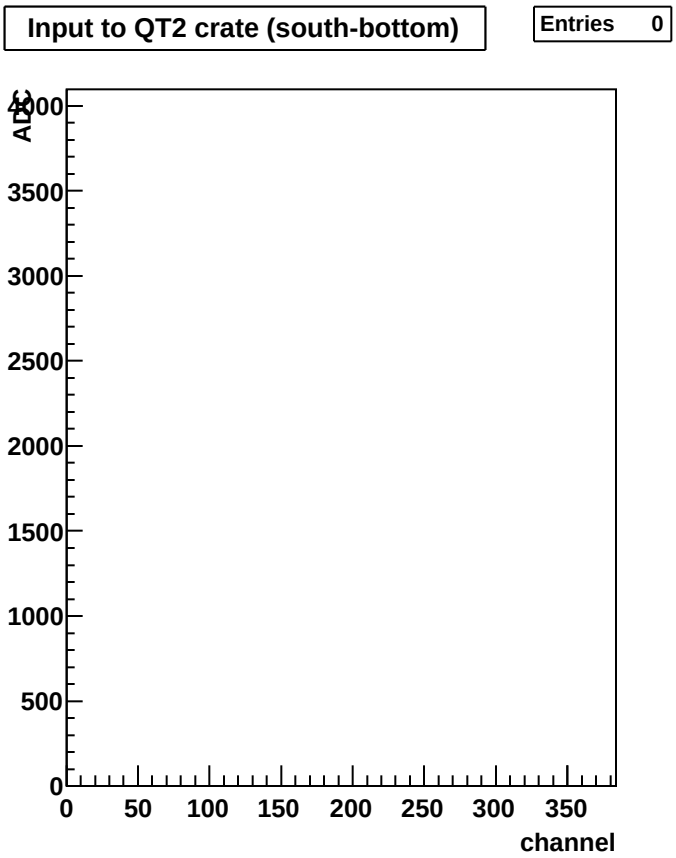

VPD-TAC-E
Entries 119028
Mean 1707
RMS 165.8

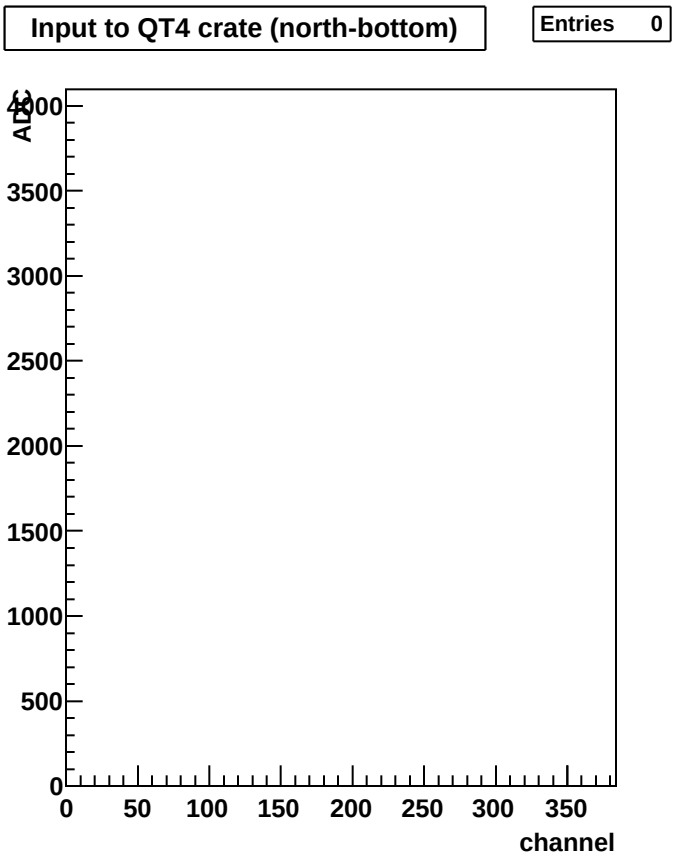

VPD-TAC-W
Entries 109682
Mean 1581
RMS 164.1

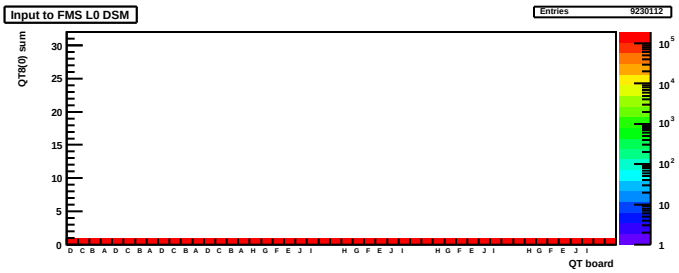

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 88786
Mean 4223
RMS 203.3

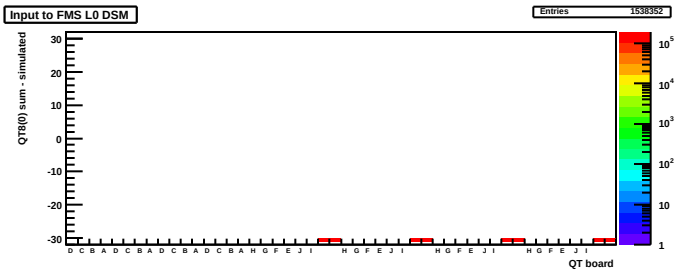

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

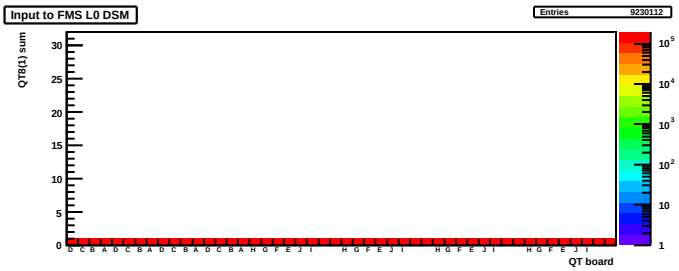

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

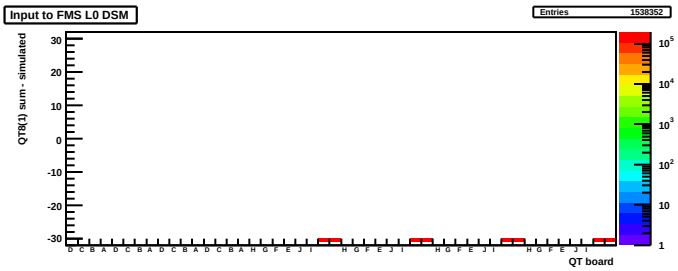

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

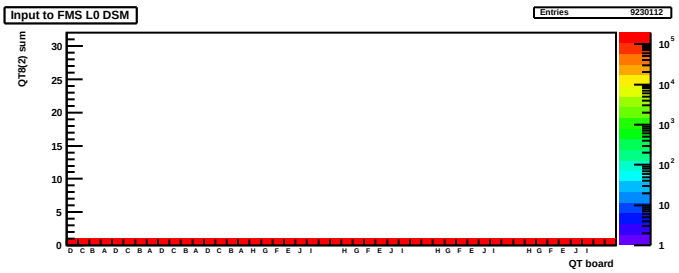

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

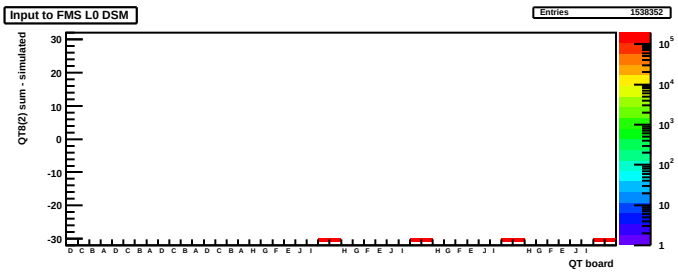

Input to FMS L0 DSM
Entries 9230112
QT8(0) sum
QT board

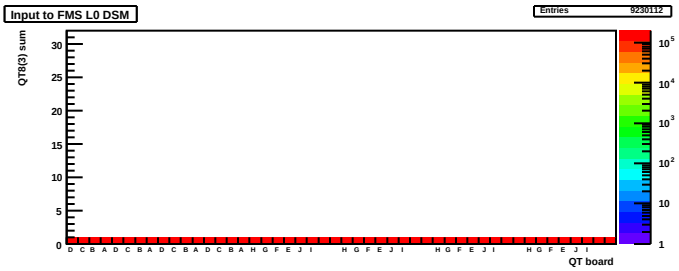

Input to FMS L0 DSM
Entries 1538352
QT8(0) sum - simulated
QT board

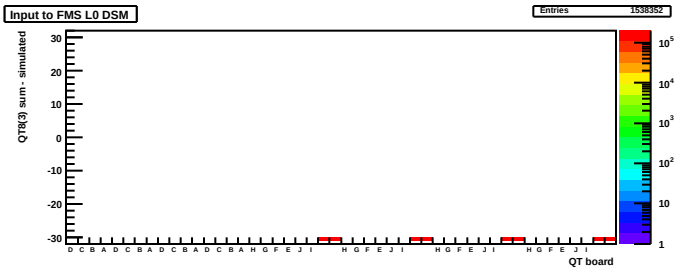

Input to FMS L0 DSM
Entries 9230112
QT8(1) sum
QT board

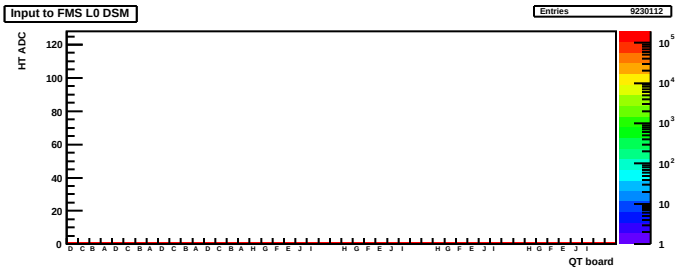

Input to FMS L0 DSM
Entries 1538352
QT8(1) sum - simulated
QT board

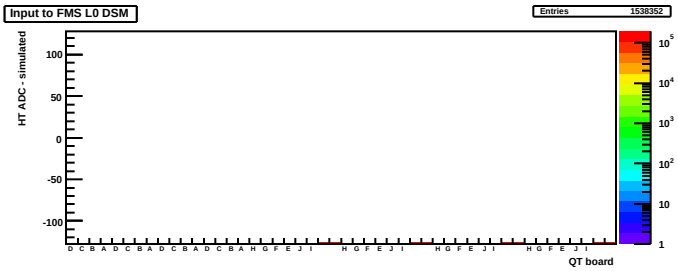

Input to FMS L0 DSM
Entries 9230112
QT8(2) sum
QT board

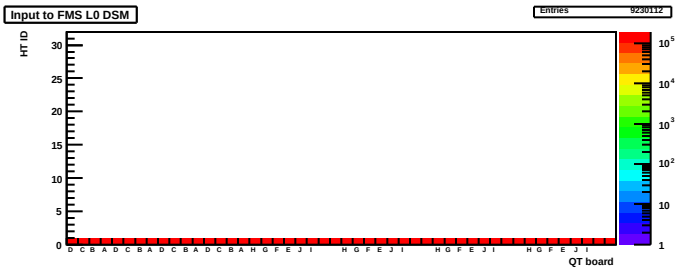

Input to FMS L0 DSM
Entries 1538352
QT8(2) sum - simulated
QT board

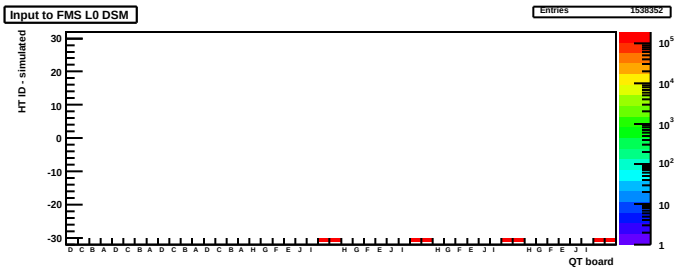

Input to FMS L0 DSM
Entries 9230112
QT8(3) sum
QT board

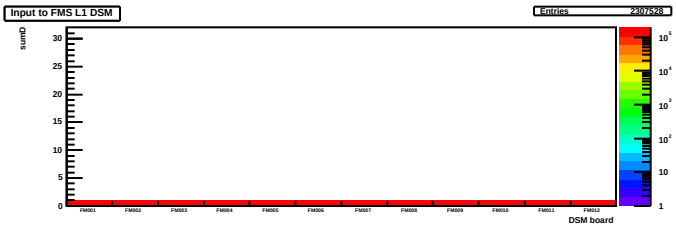

Input to FMS L0 DSM
Entries 1538352
QT8(3) sum - simulated
QT board

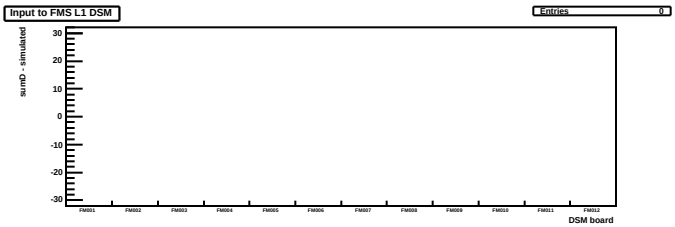

Input to FMS L0 DSM
Entries 9230112
HT ADC
QT board

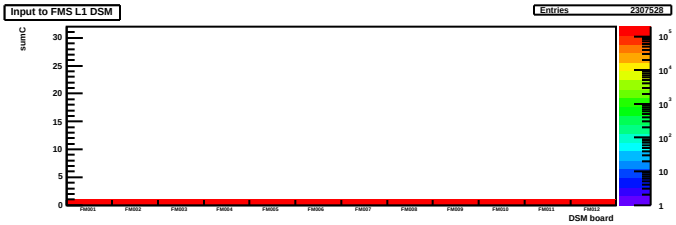

Input to FMS L0 DSM
Entries 1538352
HT ADC - simulated
QT board

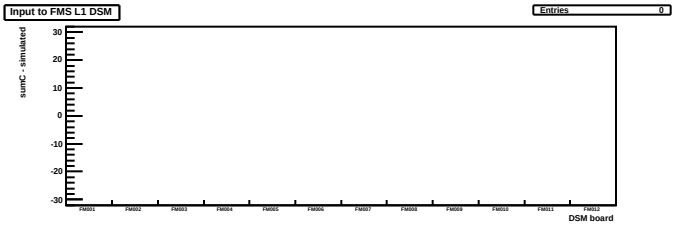

Input to FMS L0 DSM
Entries 9230112
HT ID
QT board

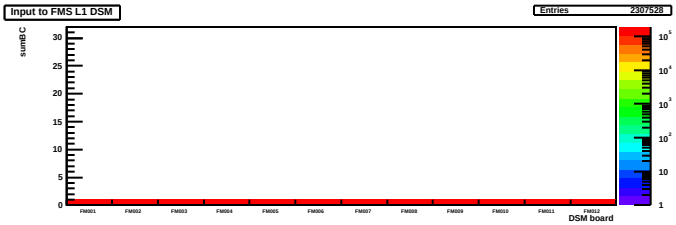

Input to FMS L0 DSM
Entries 1538352
HT ID - simulated
QT board

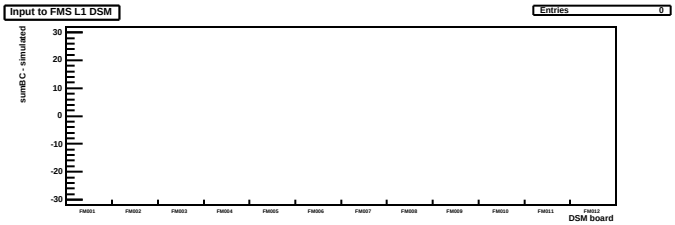

Input to FMS L1 DSM
Entries 2307528
sumD
DSM board

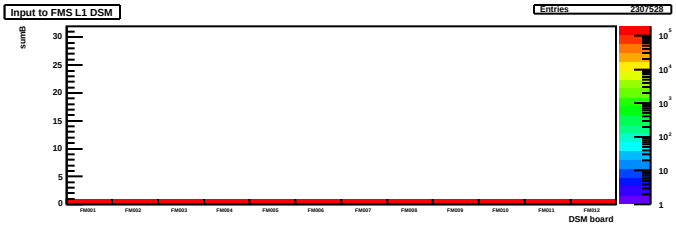

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

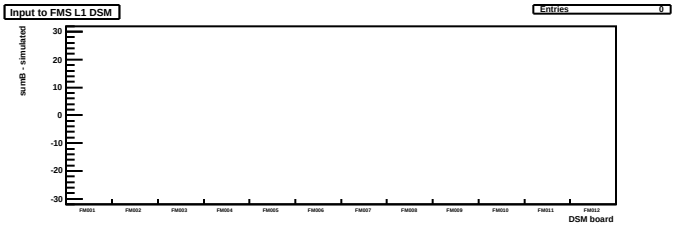

Input to FMS L1 DSM
Entries 2307528
sumC
DSM board

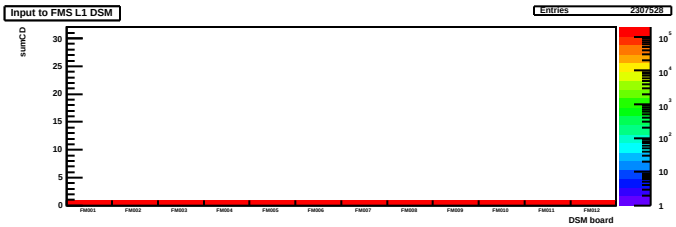

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

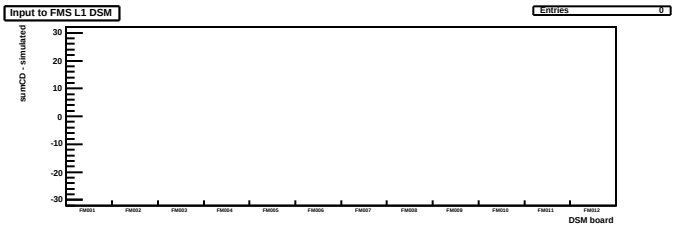

Input to FMS L1 DSM
Entries 2307528
sumBC
DSM board

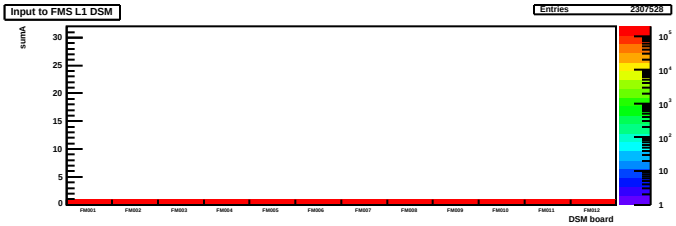

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

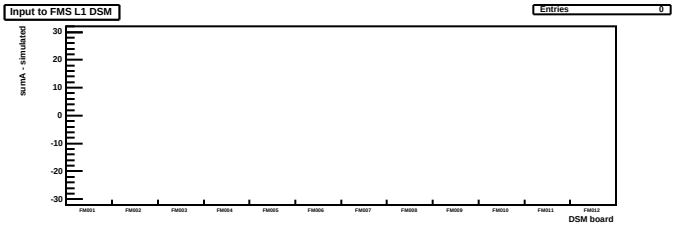

Input to FMS L1 DSM
Entries 2307528
sumB
DSM board

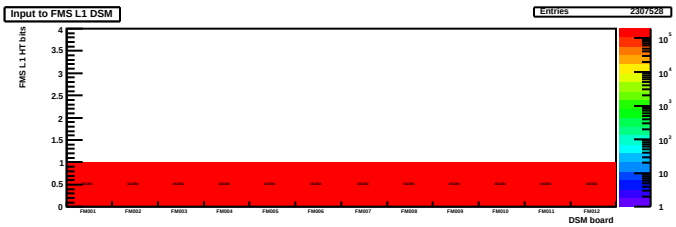

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

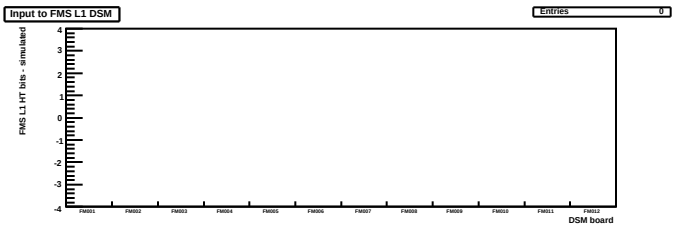

Input to FMS L1 DSM
Entries 2307528
sumCD
DSM board

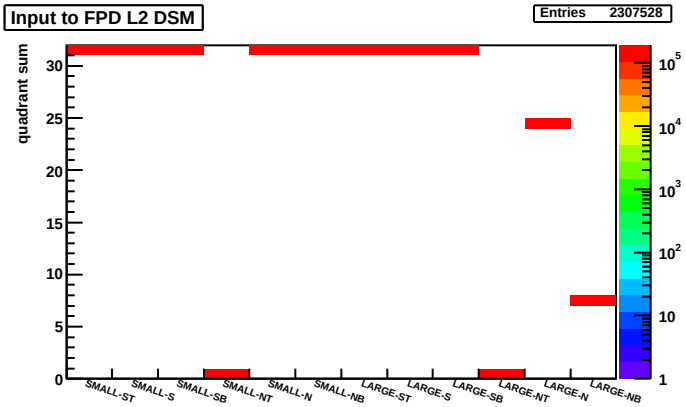

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

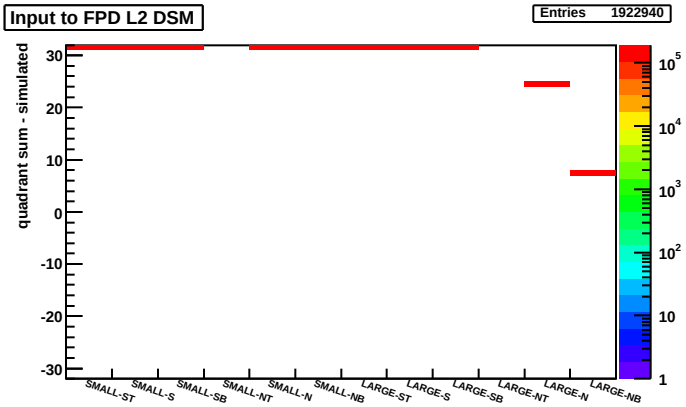

Input to FMS L1 DSM
Entries 2307528
sumA
DSM board

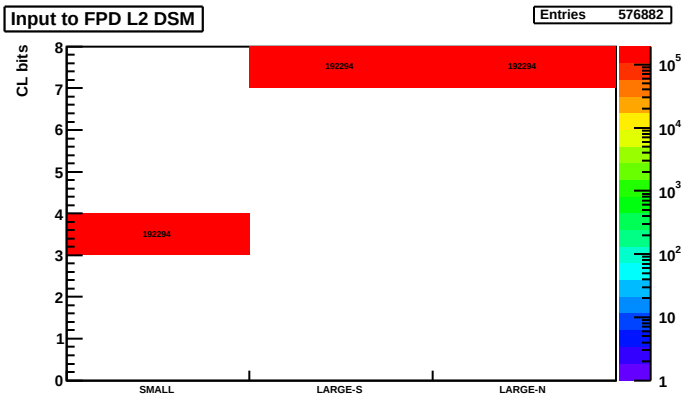

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

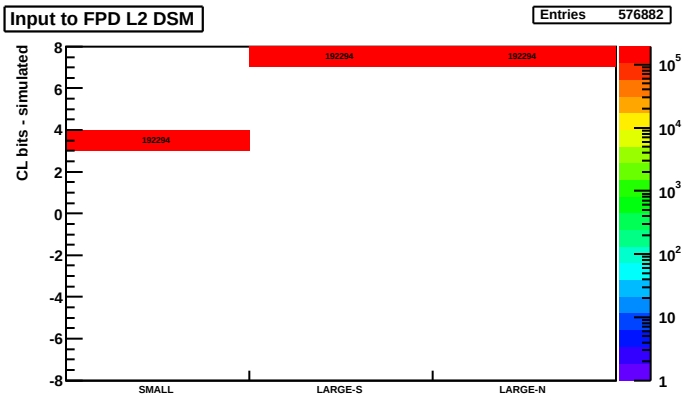

Input to FMS L1 DSM
Entries 2307528
FMS L1 HT bits
DSM board

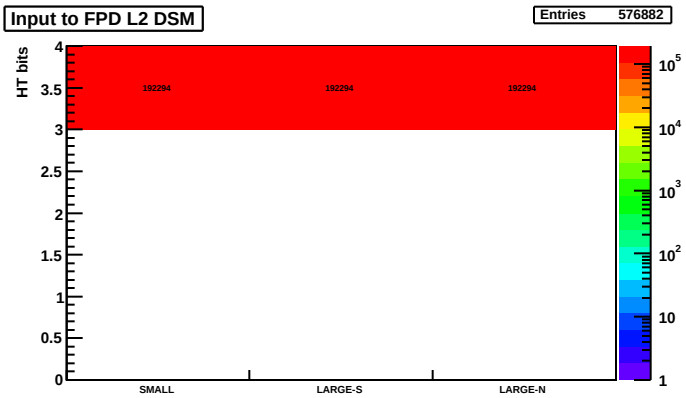

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

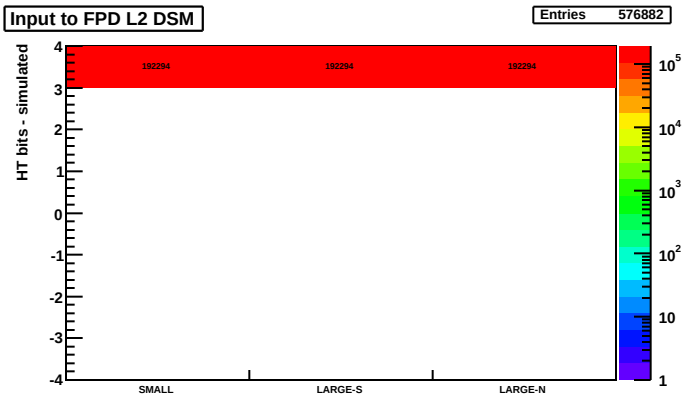

Input to FPD L2 DSM
Entries 2307528
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

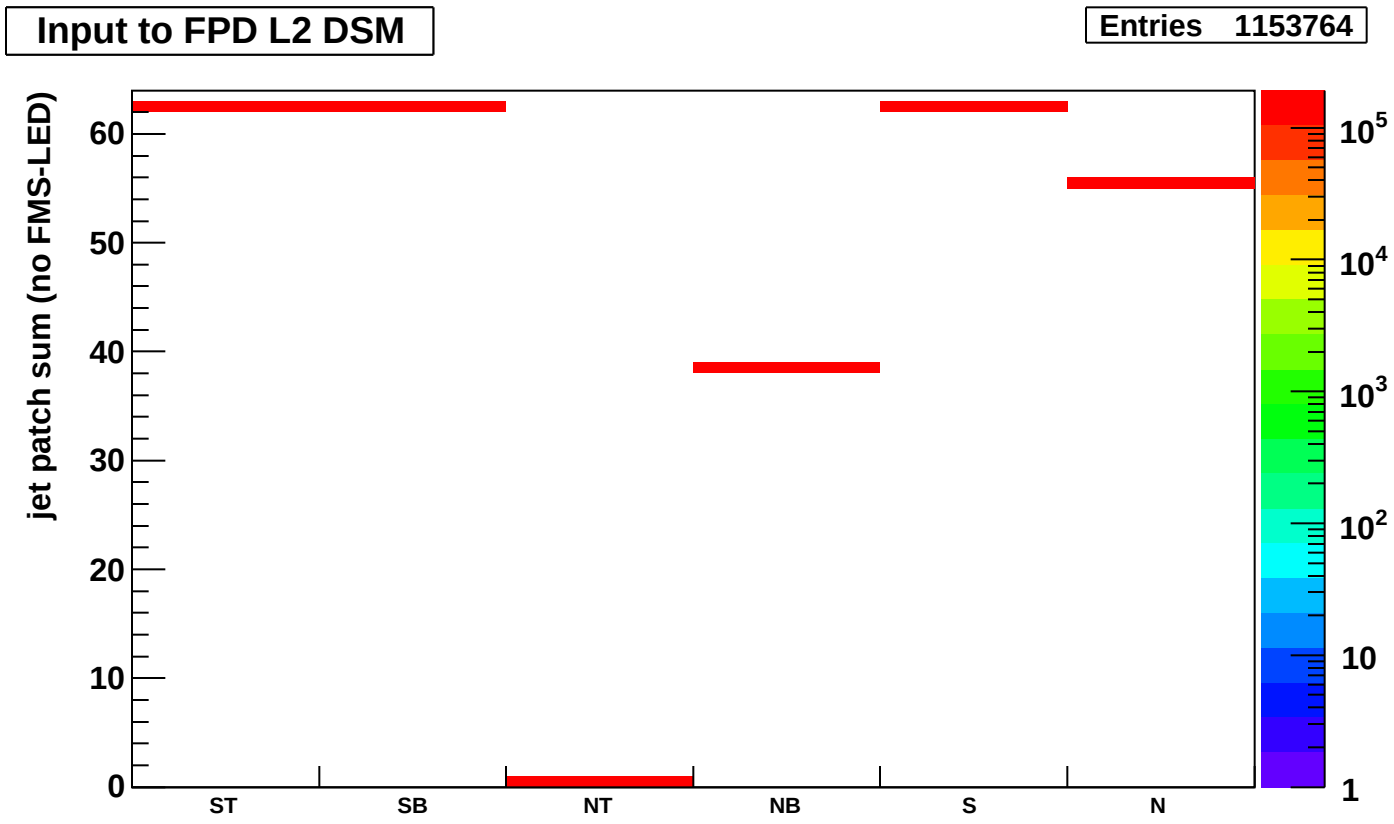

Input to FPD L2 DSM
Entries 1922940
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

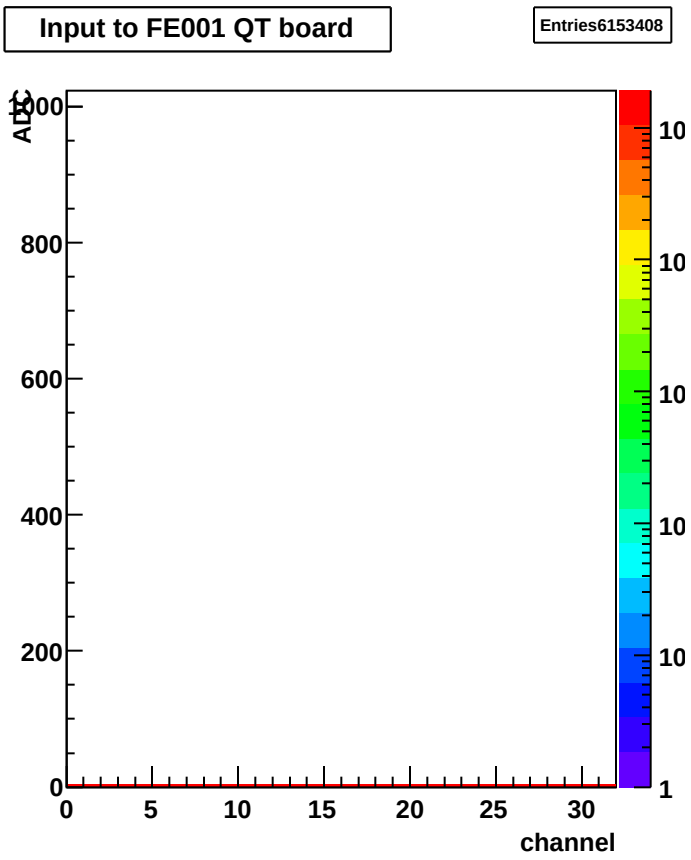

Input to FPD L2 DSM
Entries 576882
CL bits
192294
192294
192294
SMALL
LARGE-S
LARGE-N

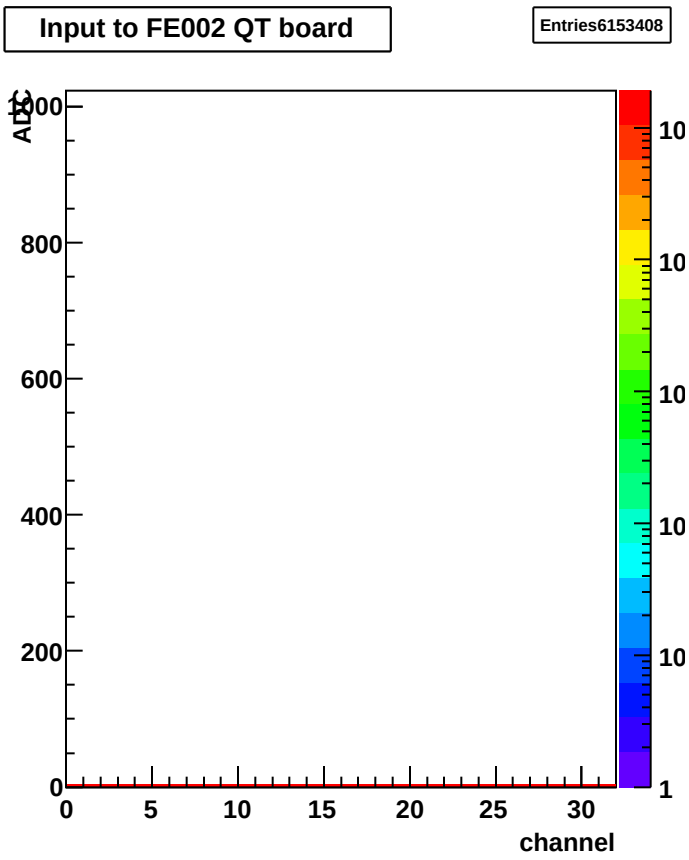

Input to FPD L2 DSM
Entries 576882
CL bits - simulated
192294
192294
192294
SMALL
LARGE-S
LARGE-N

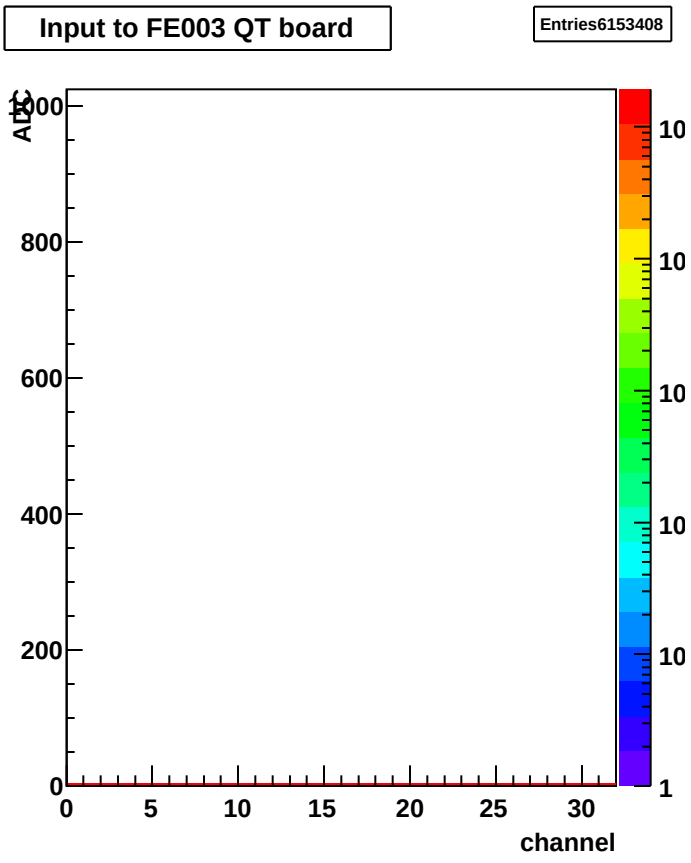

Input to FPD L2 DSM
Entries 576882
HT bits
192294
192294
192294
SMALL
LARGE-S
LARGE-N

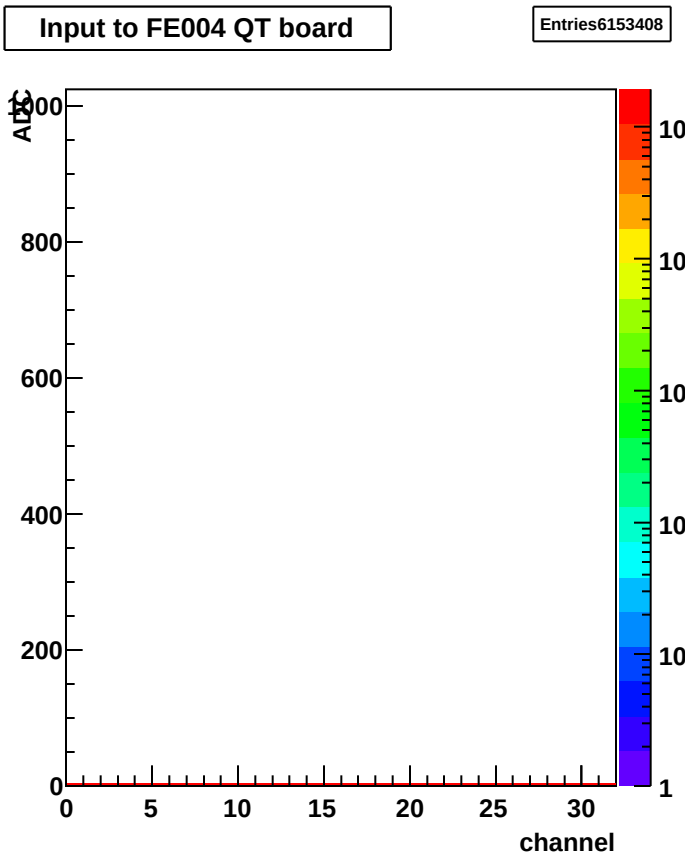

Input to FPD L2 DSM
Entries 576882
HT bits - simulated
192294
192294
192294
SMALL
LARGE-S
LARGE-N

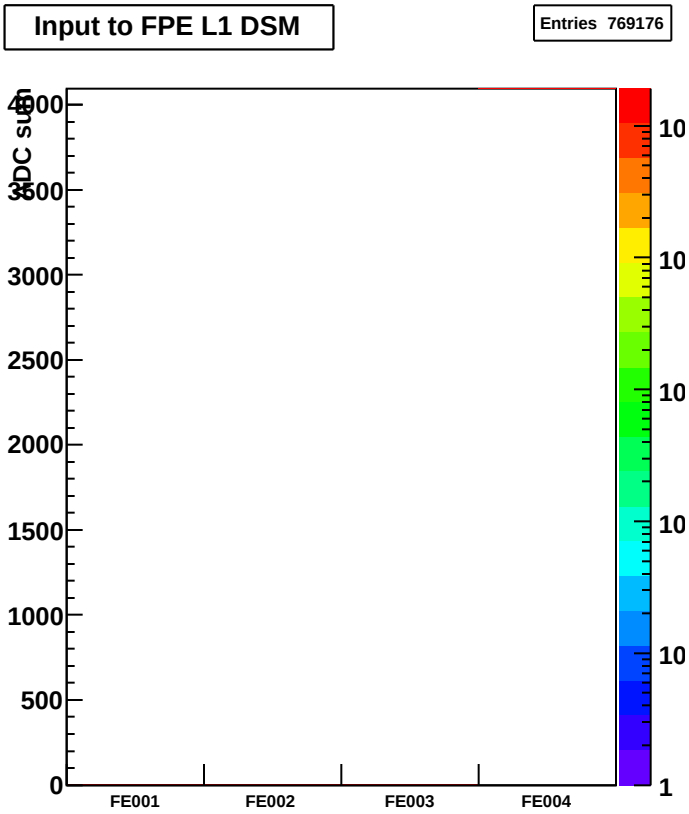

Input to FPD L2 DSM
Entries 1153764
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

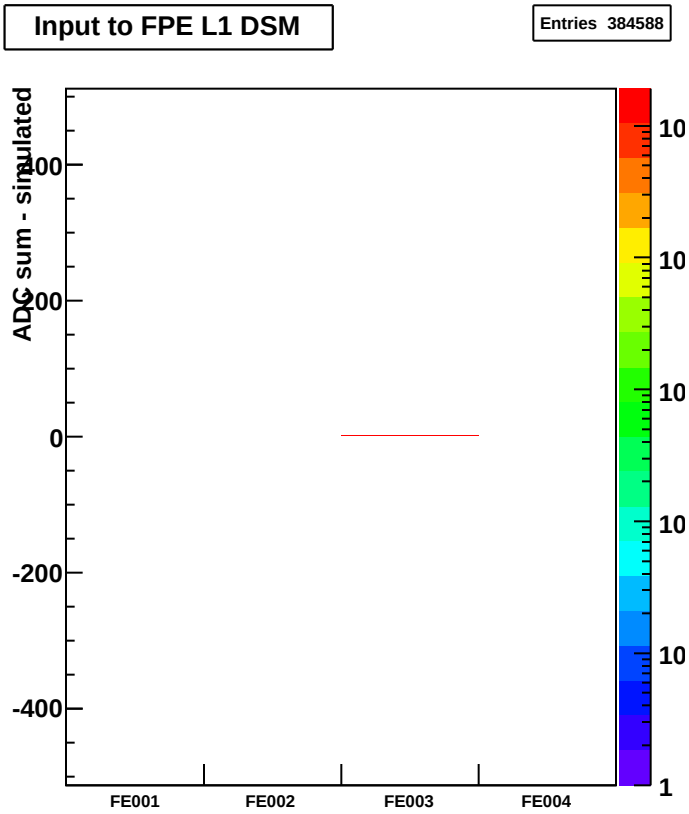

Input to FE001 QT board
Entries6153408
ADC
channel

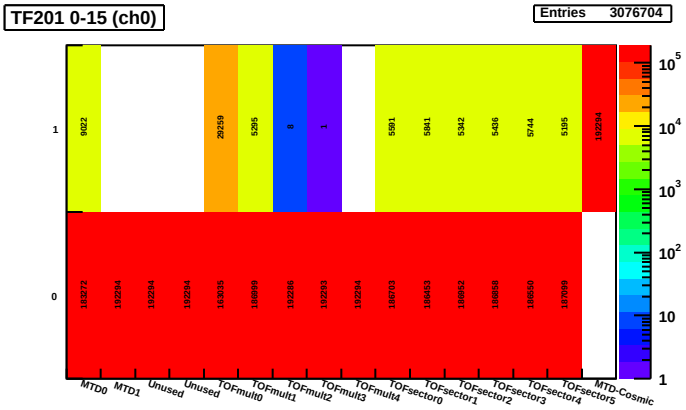

Input to FE002 QT board
Entries6153408
ADC
channel

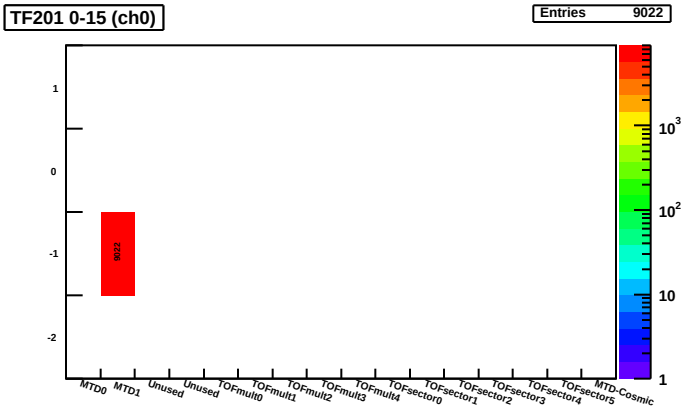

Input to FE003 QT board
Entries6153408
ADC
channel


Input to FE004 QT board
Entries6153408
ADC
channel


Input to FPE L1 DSM
Entries 769176
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 384588
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 3076704
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 9022
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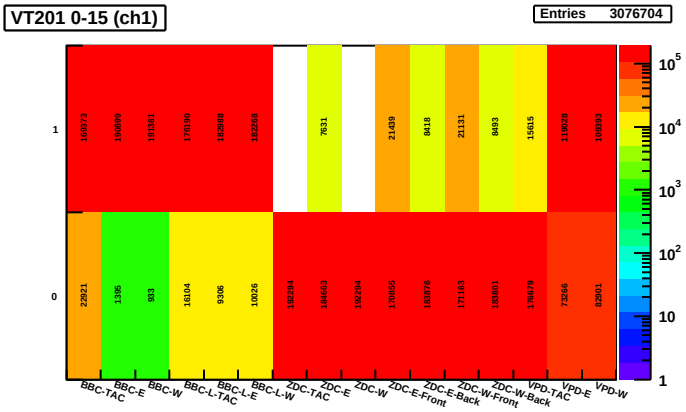
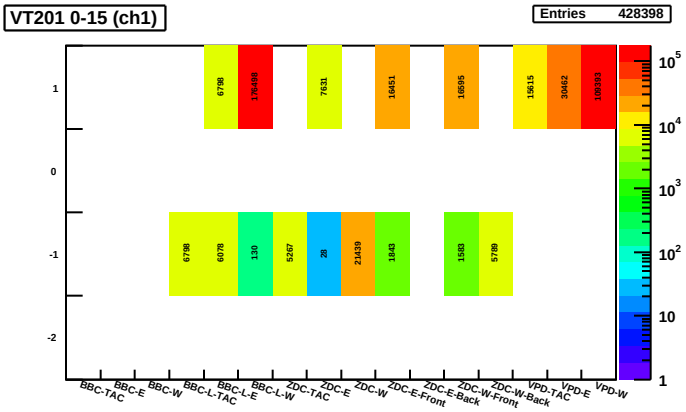
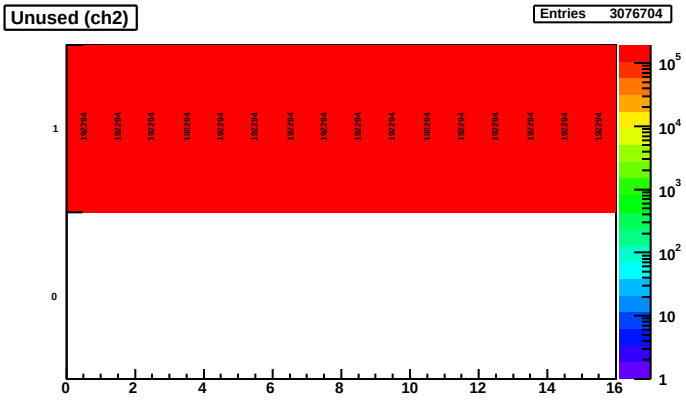
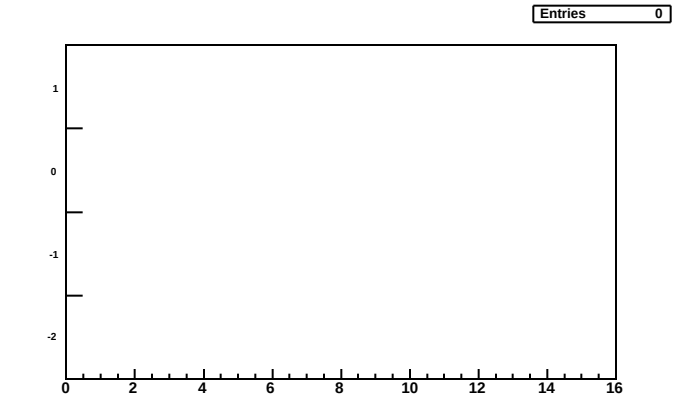
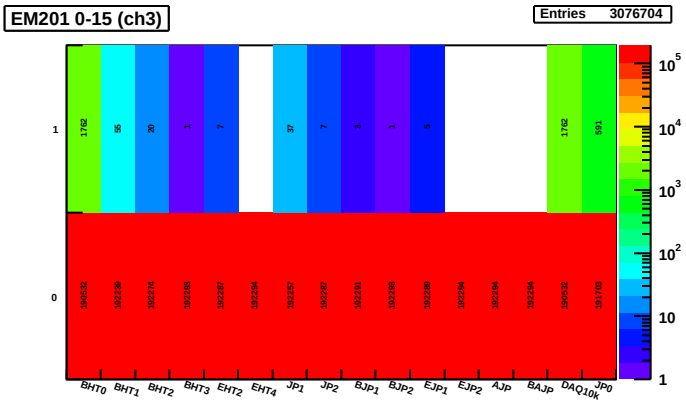
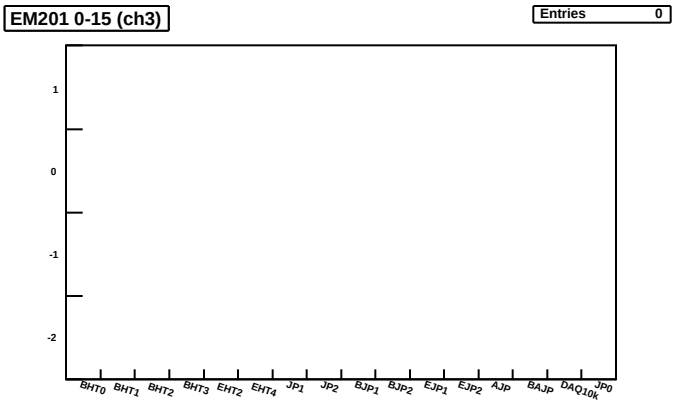

VT201 0-15 (ch1)
Entries 3076704
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 428398
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 3076704


Entries 0


EM201 0-15 (ch3)
Entries 3076704
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


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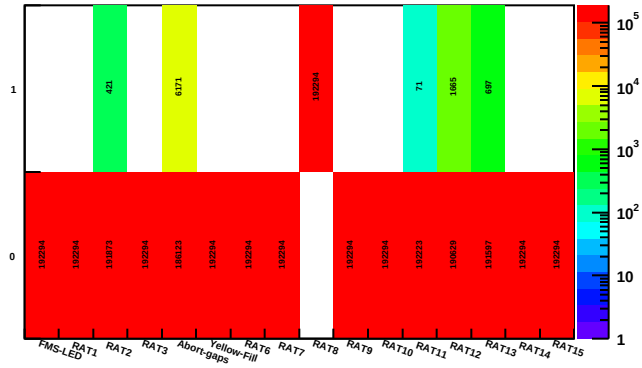
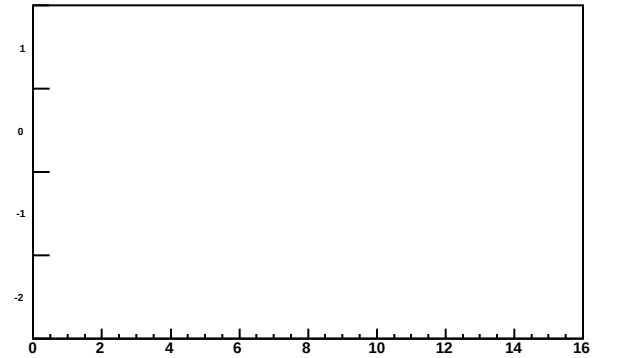
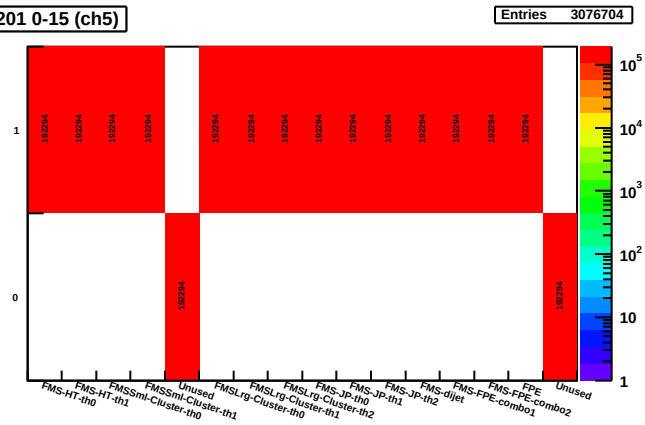
RAT board (ch4)





FP201 0-15 (ch5)



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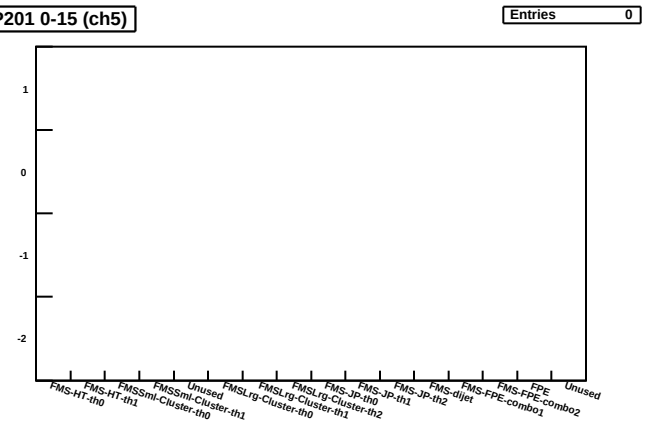
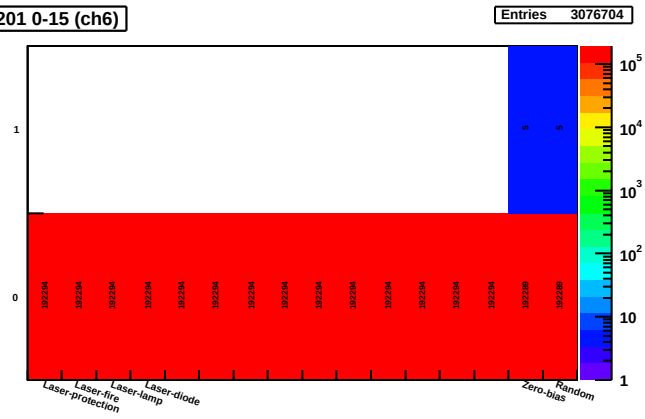
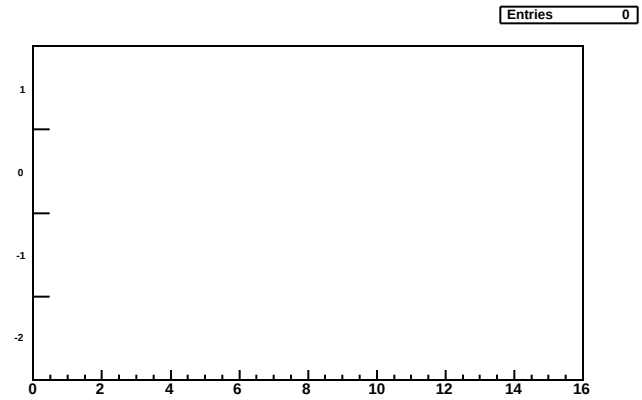
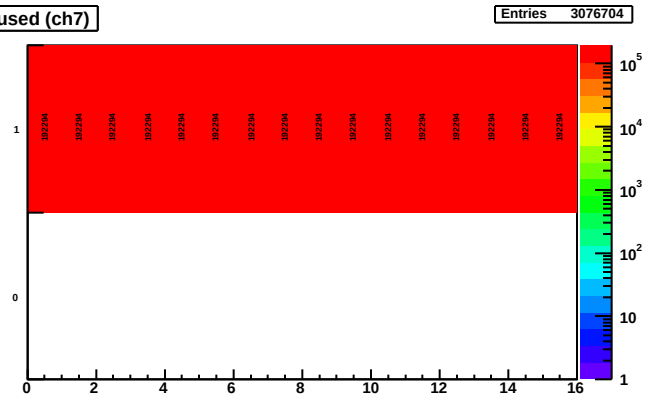
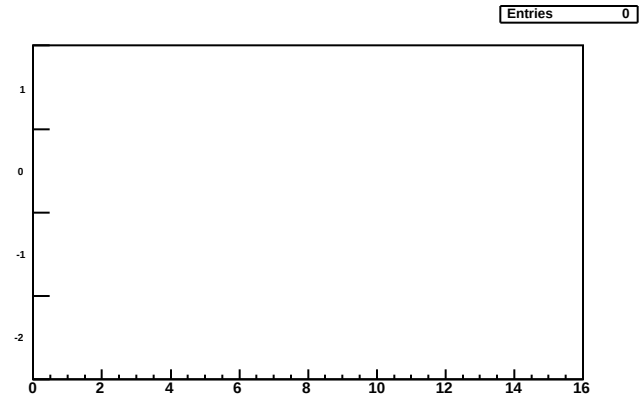


ST201 0-15 (ch6)





Unused (ch7)