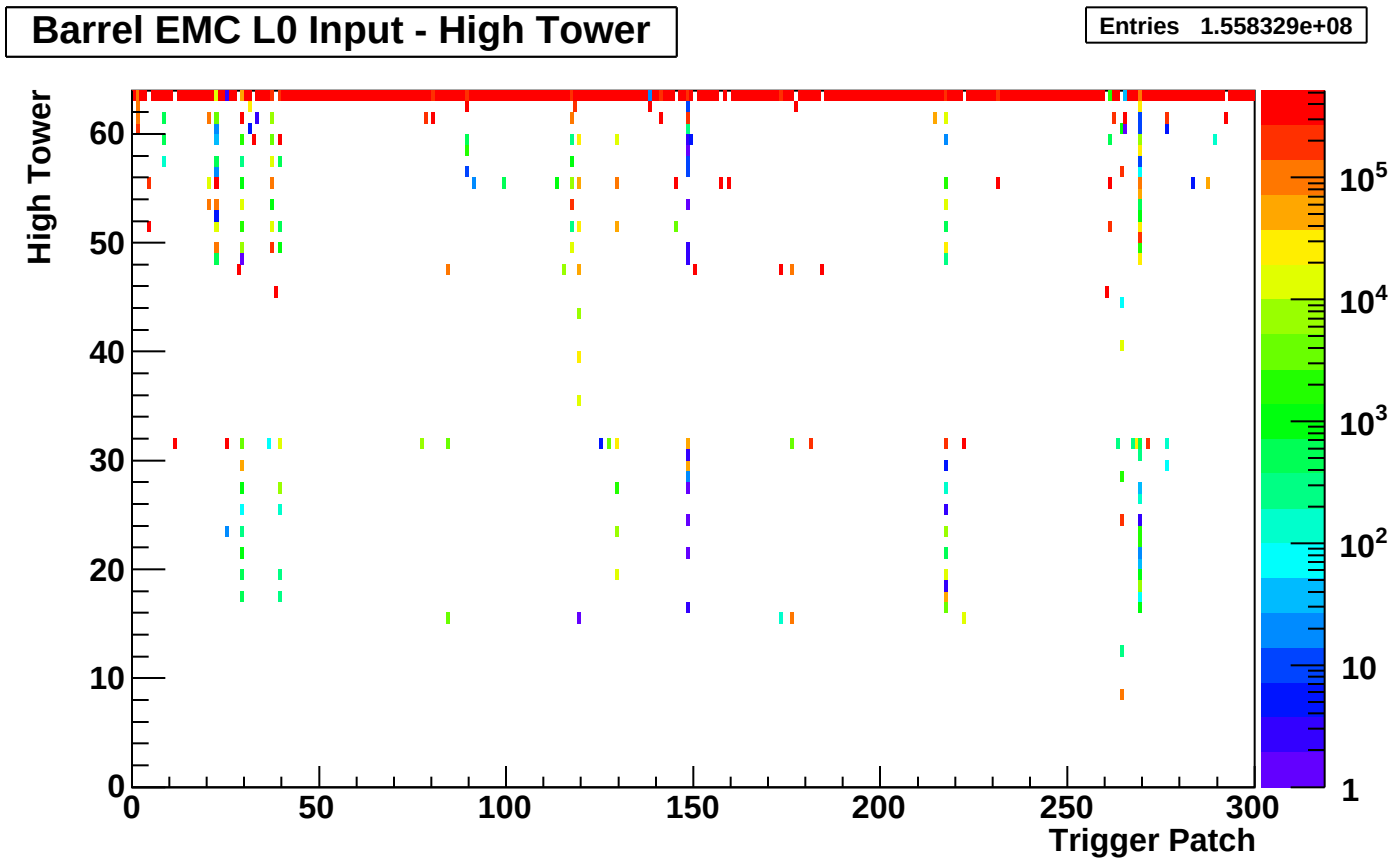
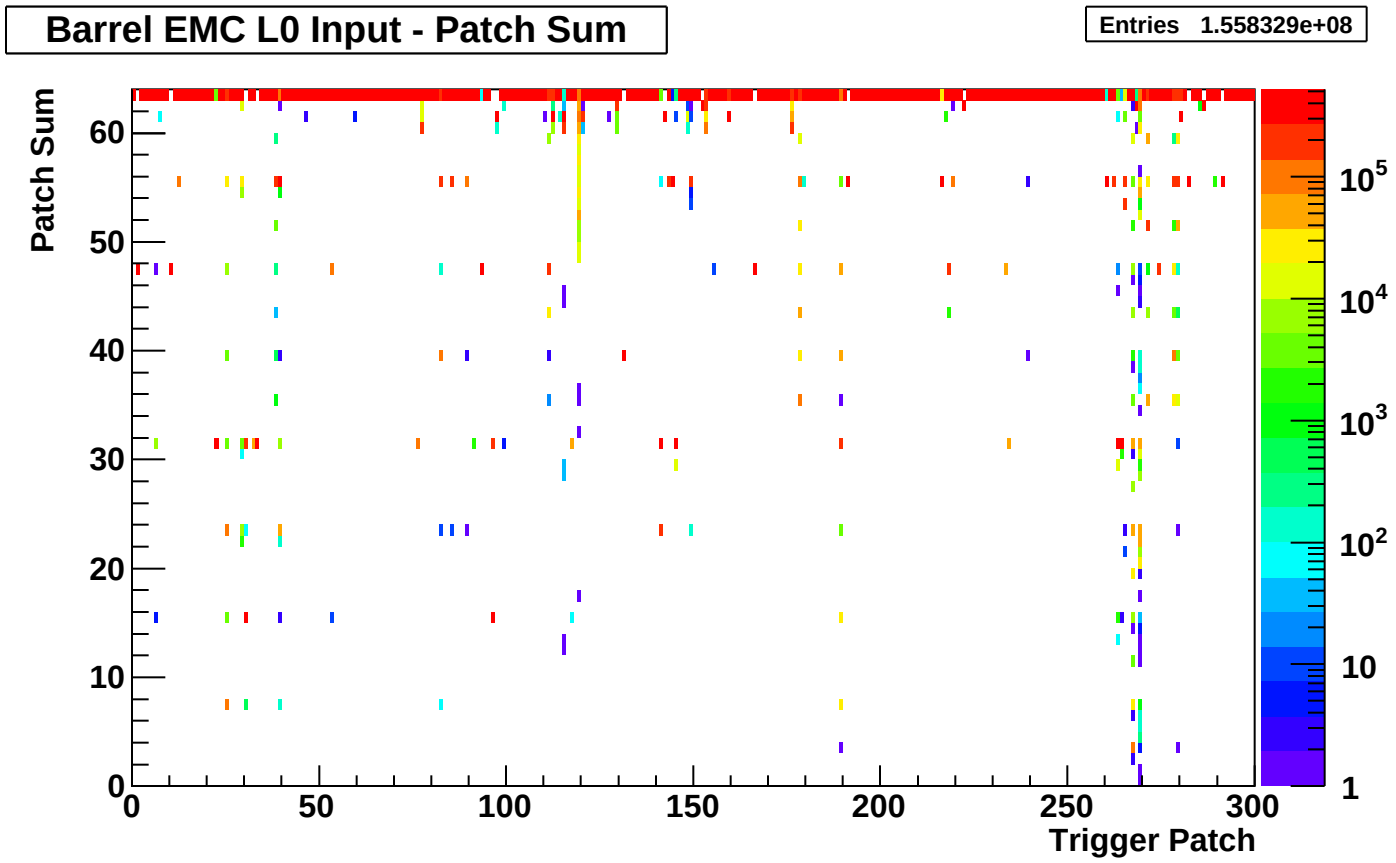
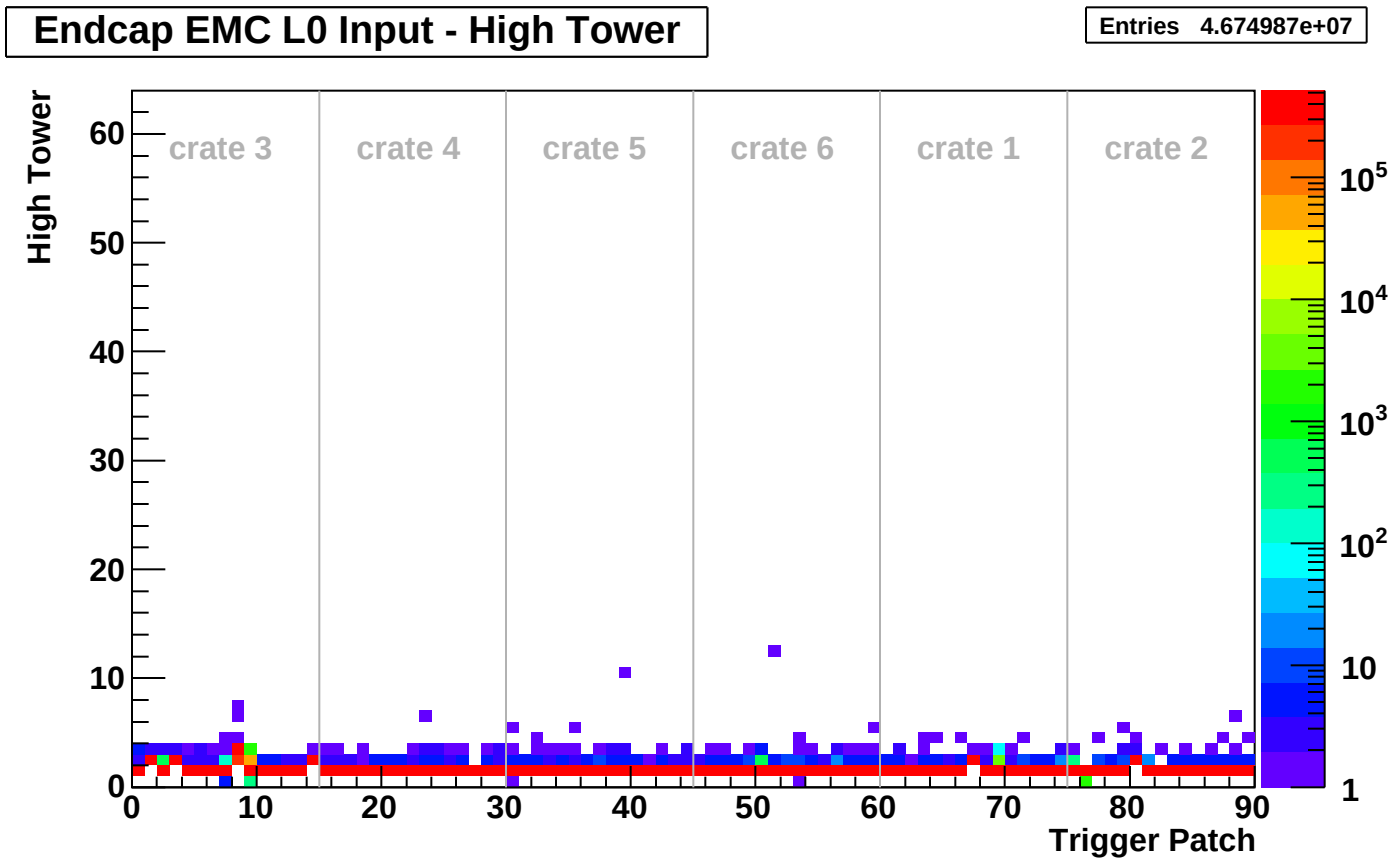
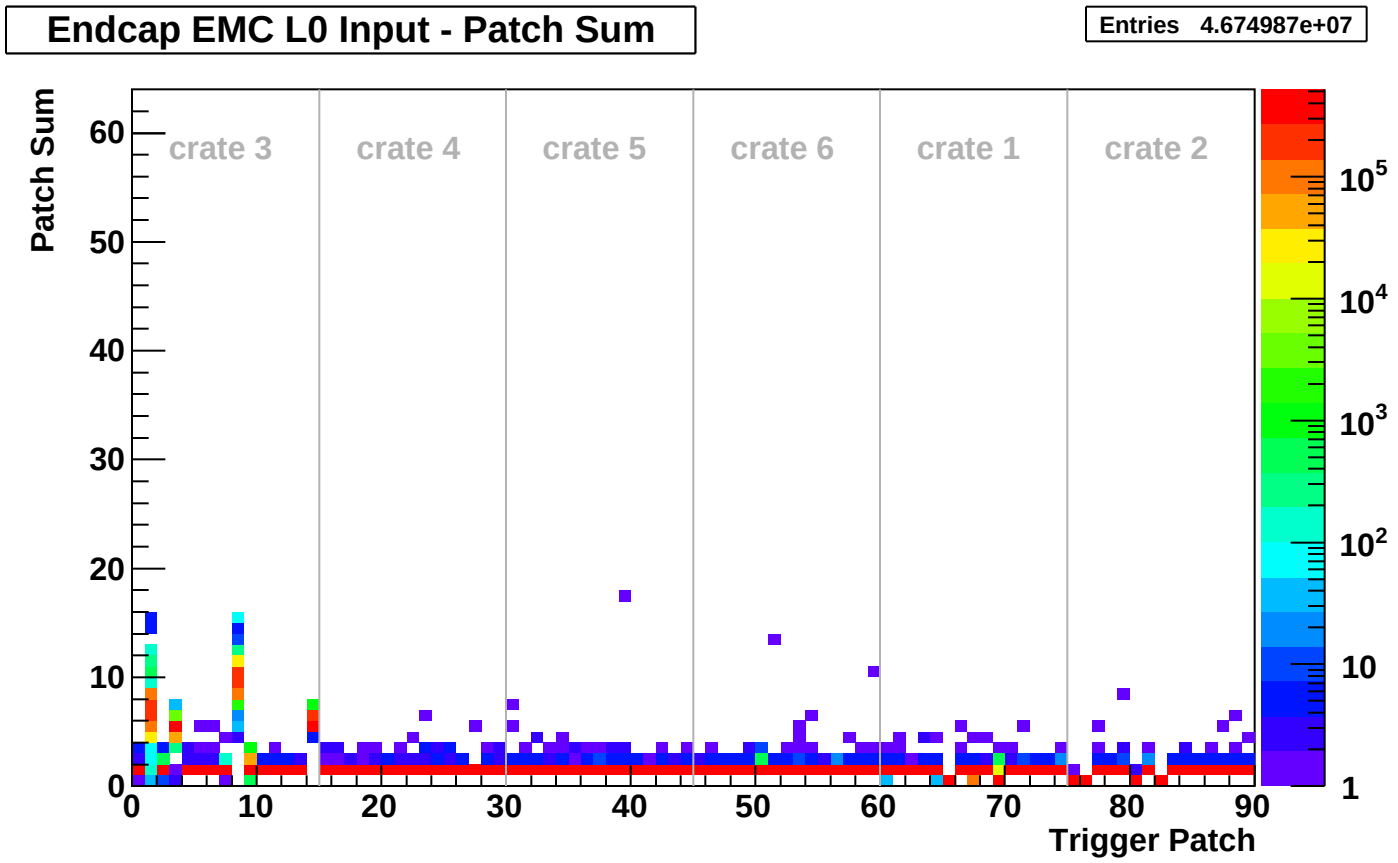
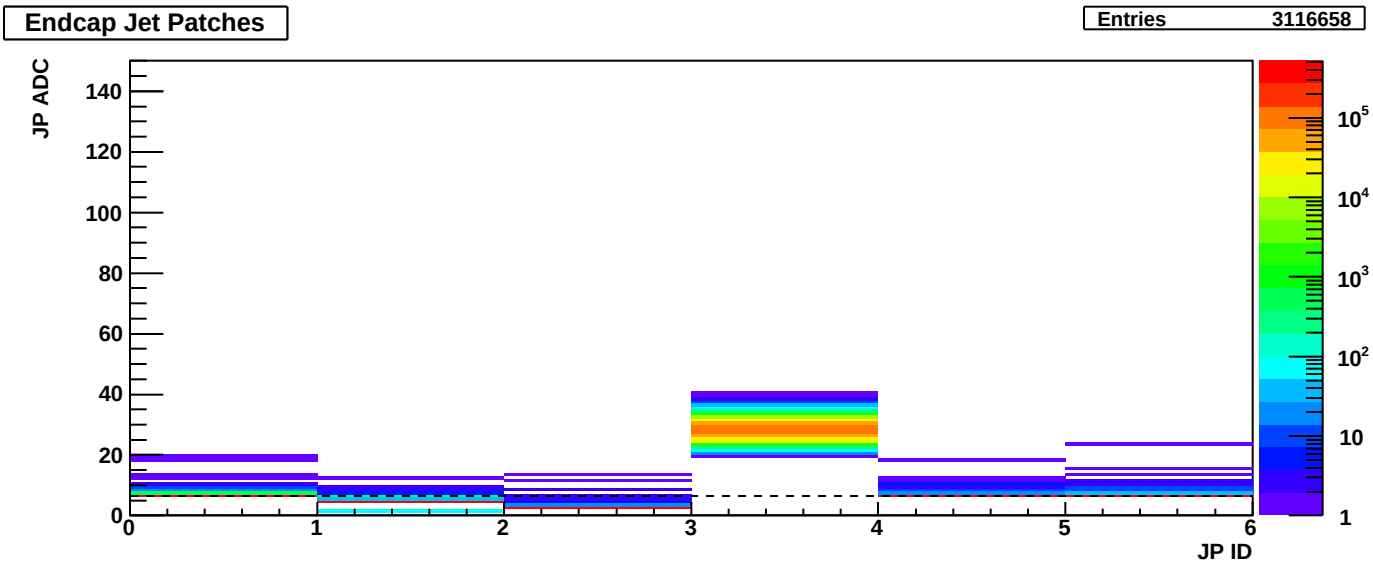
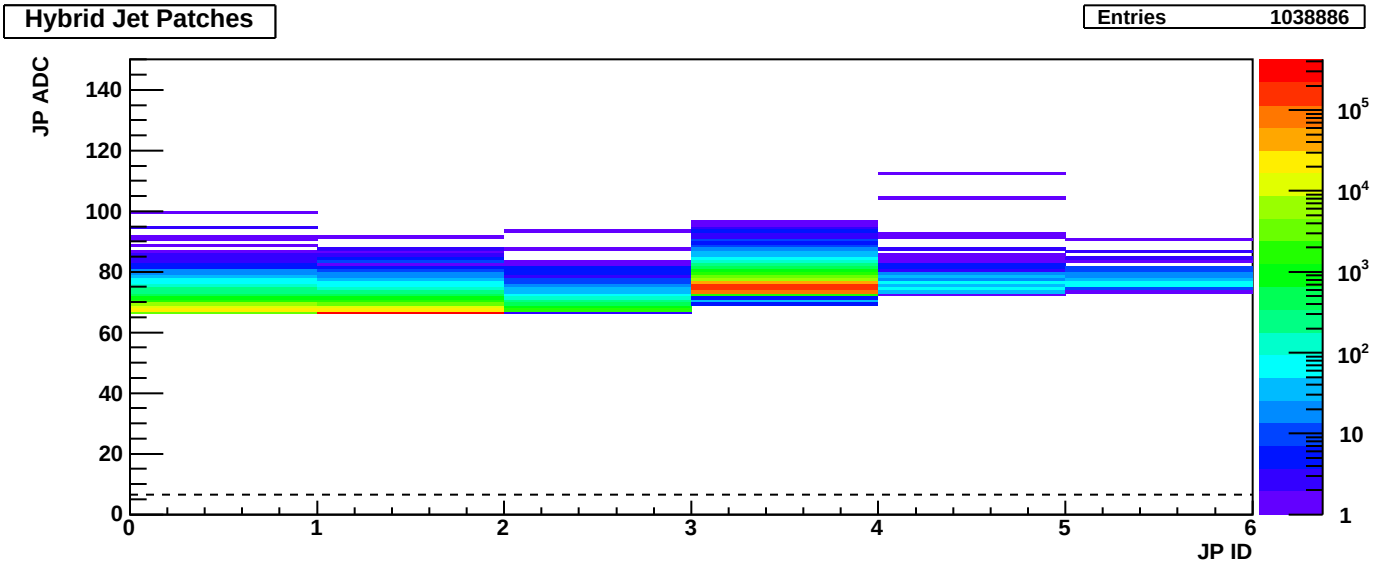

Barrel EMC L0 Input - High Tower
Entries 1.558329e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

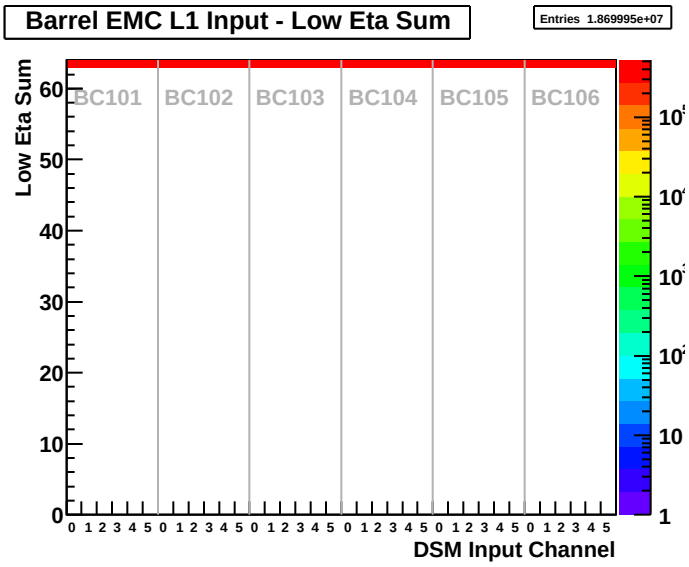

Barrel EMC L0 Input - Patch Sum
Entries 1.558329e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

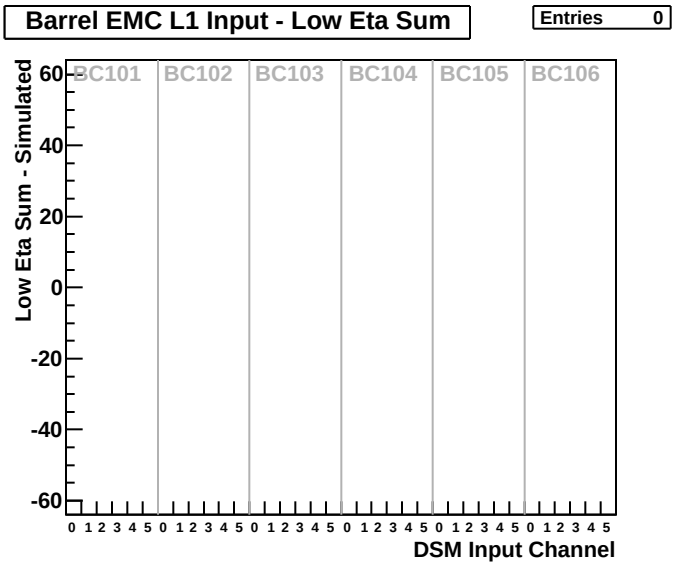

Endcap EMC L0 Input - High Tower
Entries 4.674987e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

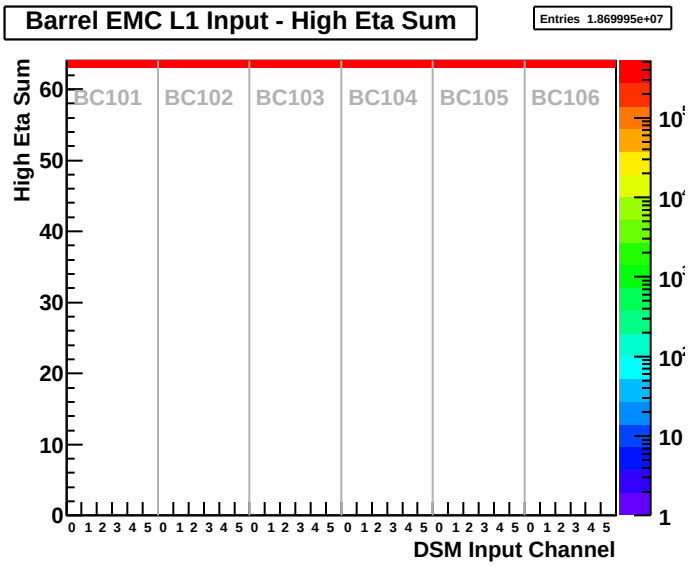

Endcap EMC L0 Input - Patch Sum
Entries 4.674987e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

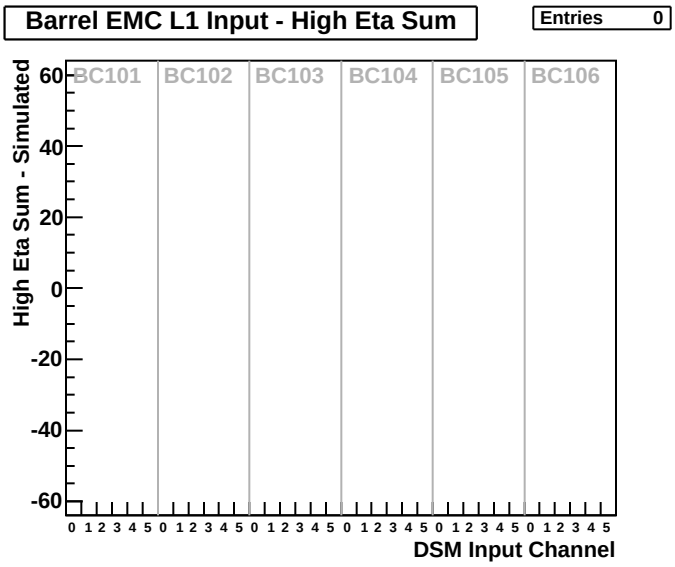

Endcap Jet Patches
Entries 3116658
JP ADC
JP ID

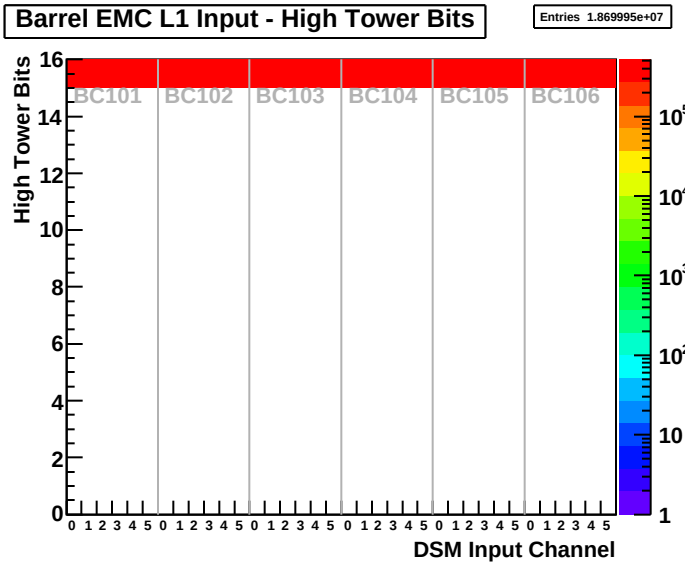

Hybrid Jet Patches
Entries 1038886
JP ADC
JP ID

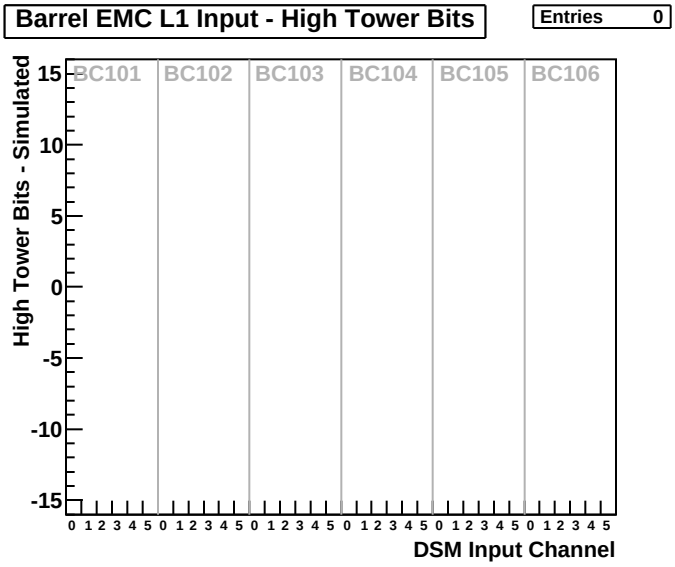

Barrel EMC L1 Input - Low Eta Sum
Entries 1.869995e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

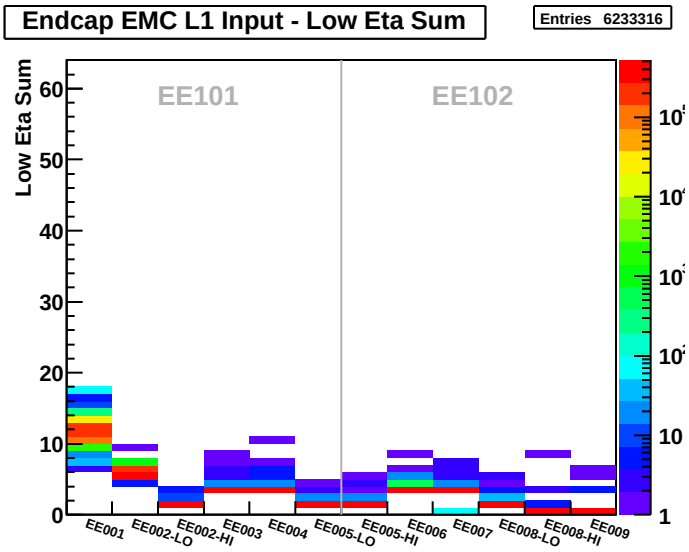

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

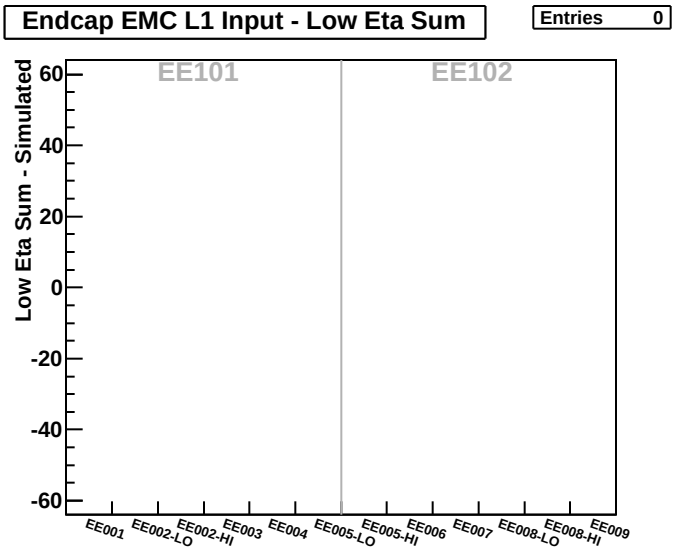

Barrel EMC L1 Input - High Eta Sum
Entries 1.869995e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

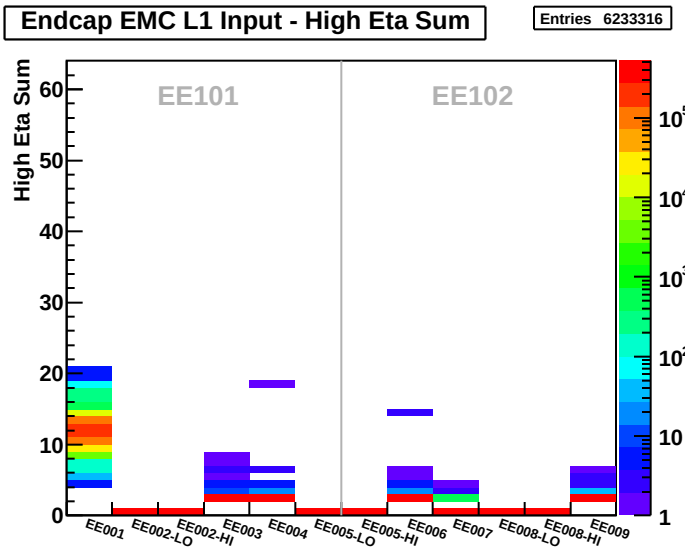

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

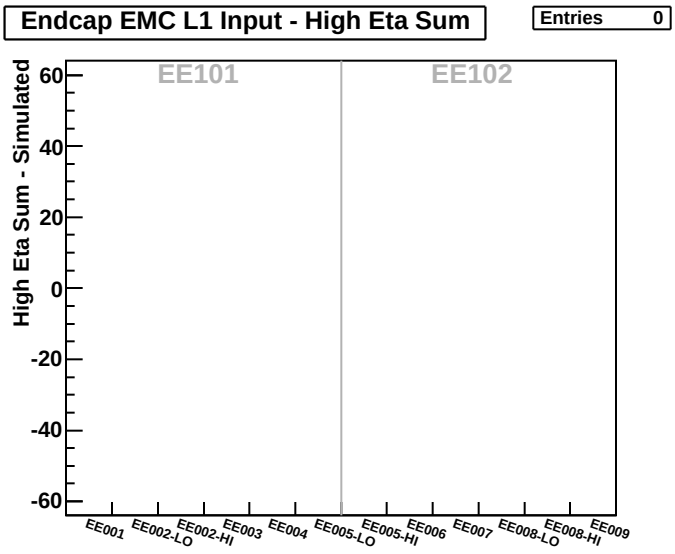

Barrel EMC L1 Input - High Tower Bits
Entries 1.869995e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

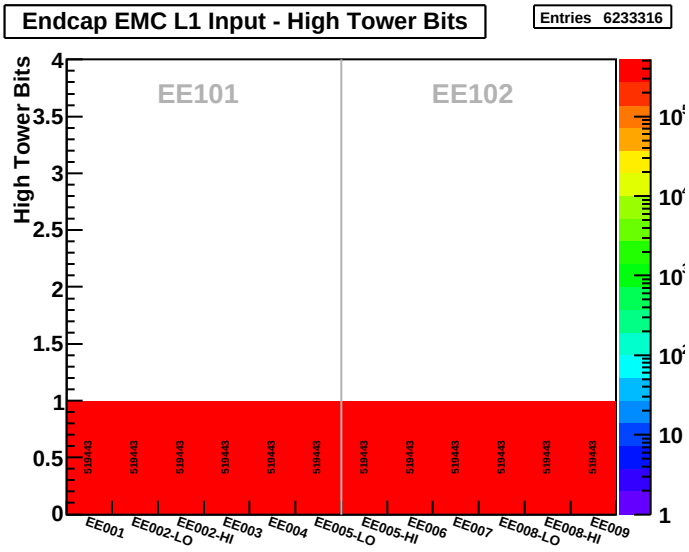

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

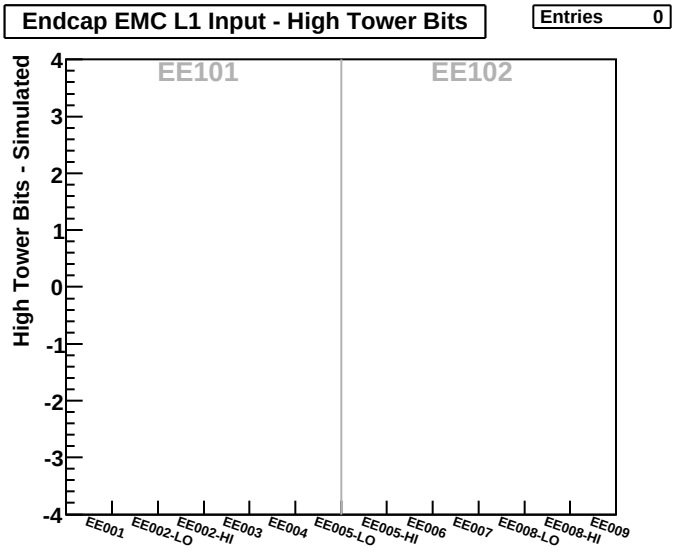

Endcap EMC L1 Input - Low Eta Sum
Entries 6233316
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

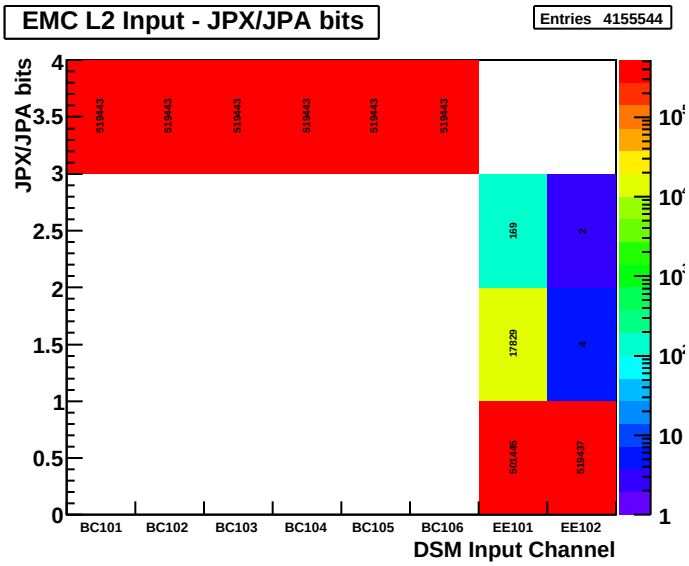

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

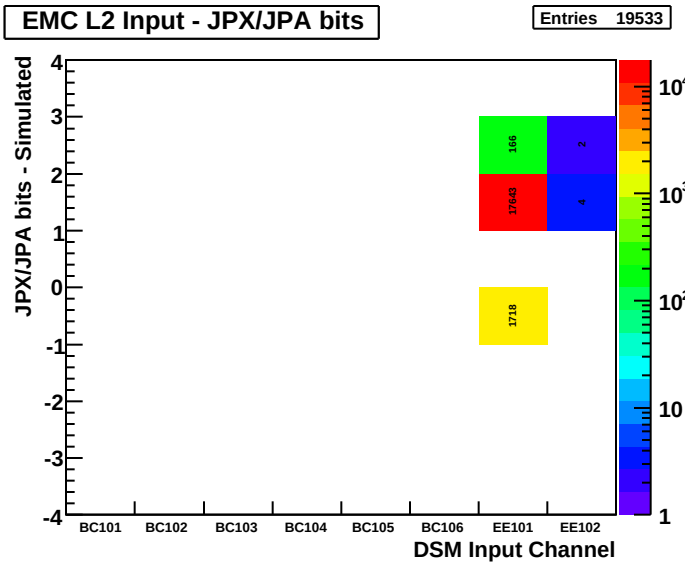

Endcap EMC L1 Input - High Eta Sum
Entries 6233316
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

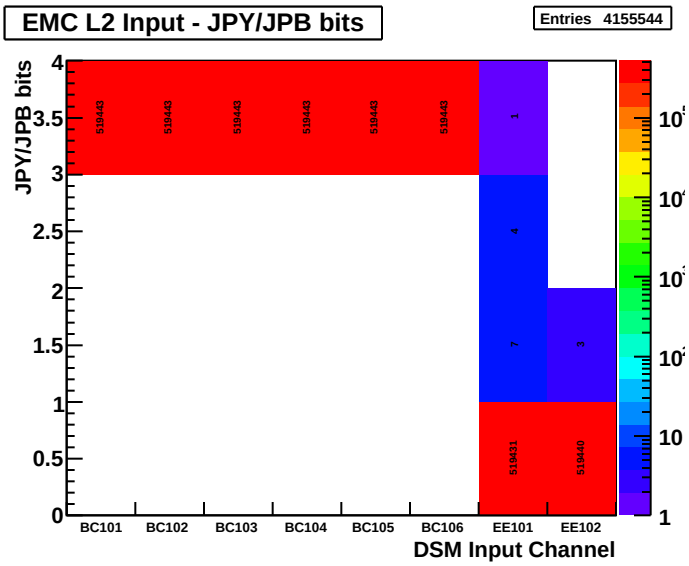

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

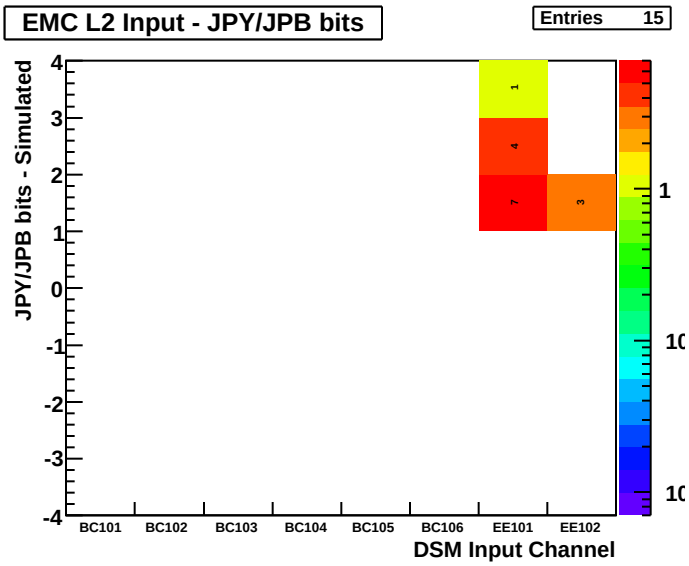

Endcap EMC L1 Input - High Tower Bits
Entries 6233316
High Tower Bits
EE101
EE102
519443
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

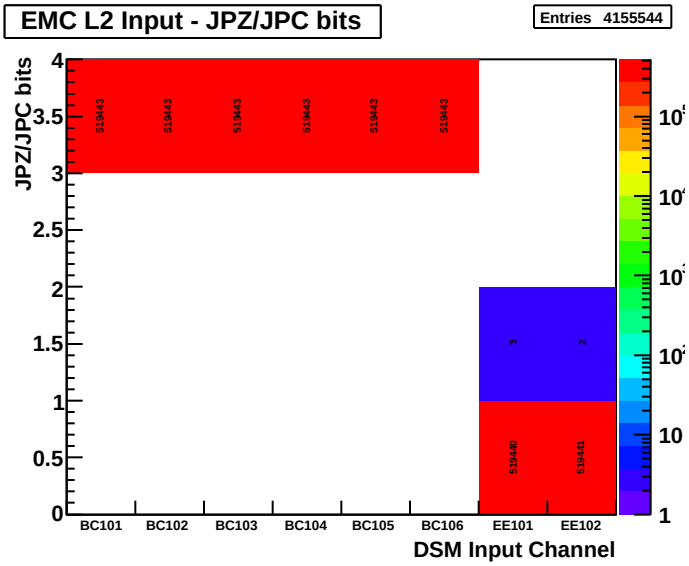

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

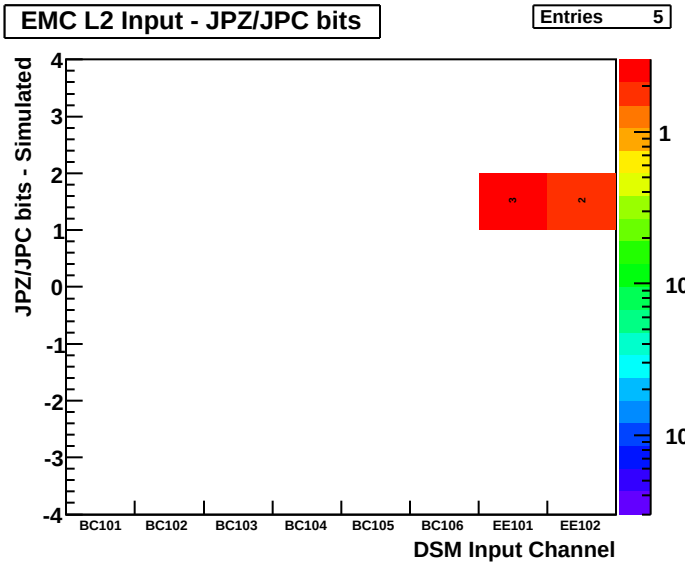

EMC L2 Input - JPX/JPA bits
Entries 4155544
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
519443 519443 519443 519443 519443 519443
169 2
17829 4
501445 519437

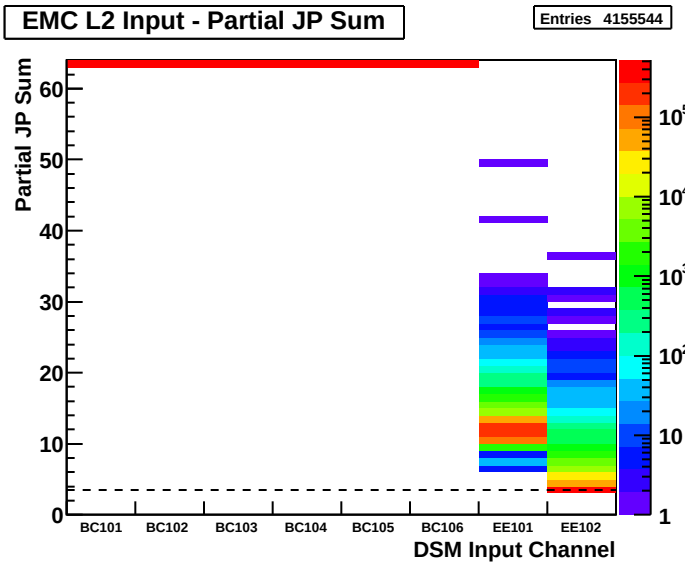

EMC L2 Input - JPX/JPA bits
Entries 19533
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
166 2
17643 4
1718

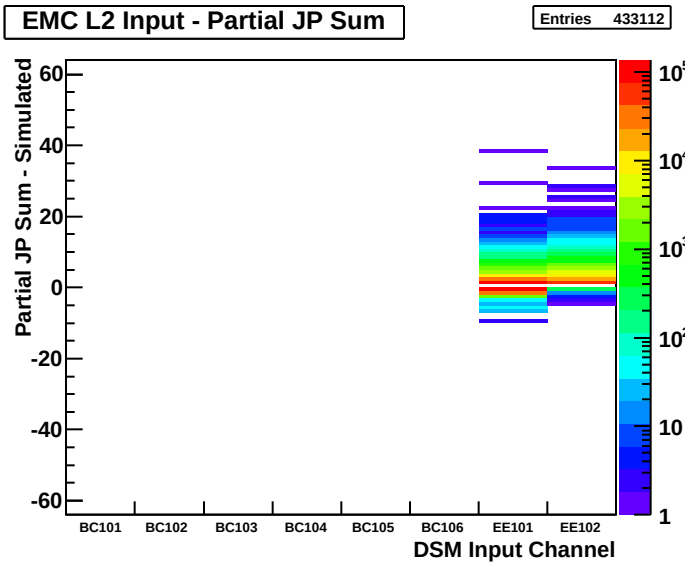

EMC L2 Input - JPY/JPB bits
Entries 4155544
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
519443 519443 519443 519443 519443 519443
1
4 3
7
519431 519440

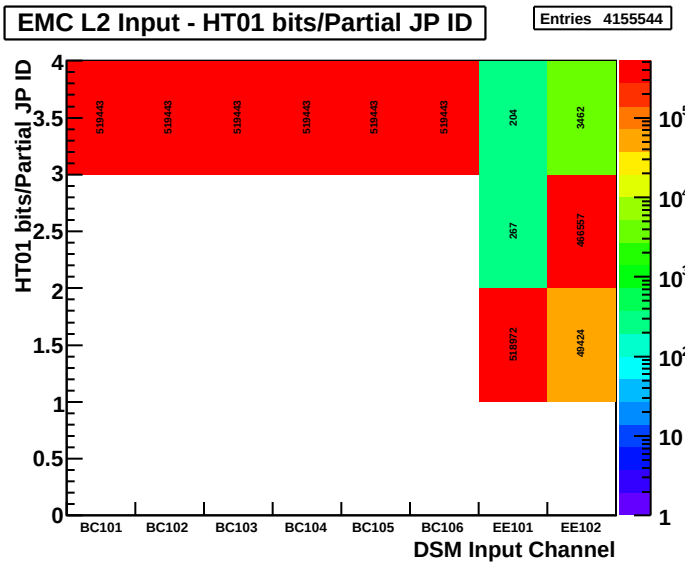

EMC L2 Input - JPY/JPB bits
Entries 15
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
4
7 3

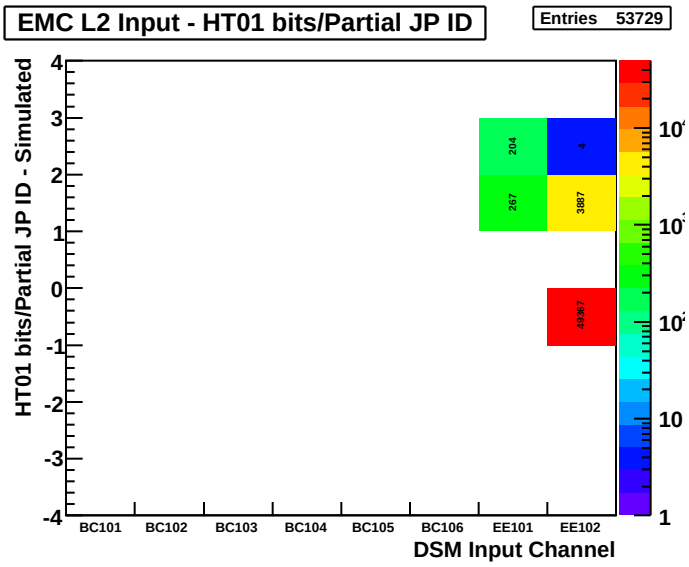

EMC L2 Input - JPZ/JPC bits
Entries 4155544
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
519443 519443 519443 519443 519443 519443
3 2
519440 519441

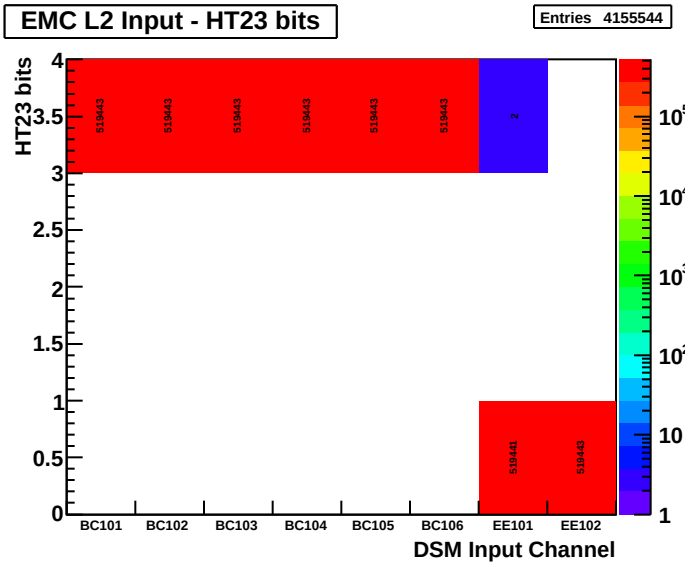

EMC L2 Input - JPZ/JPC bits
Entries 5
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3 2

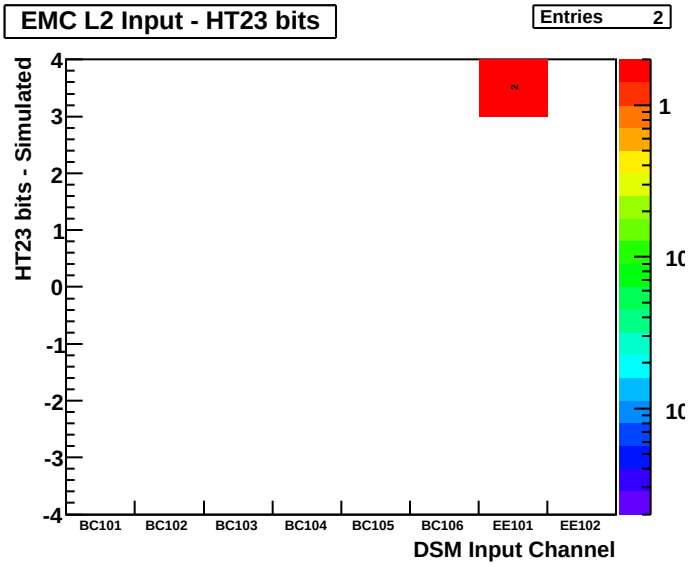

EMC L2 Input - Partial JP Sum
Entries 4155544
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

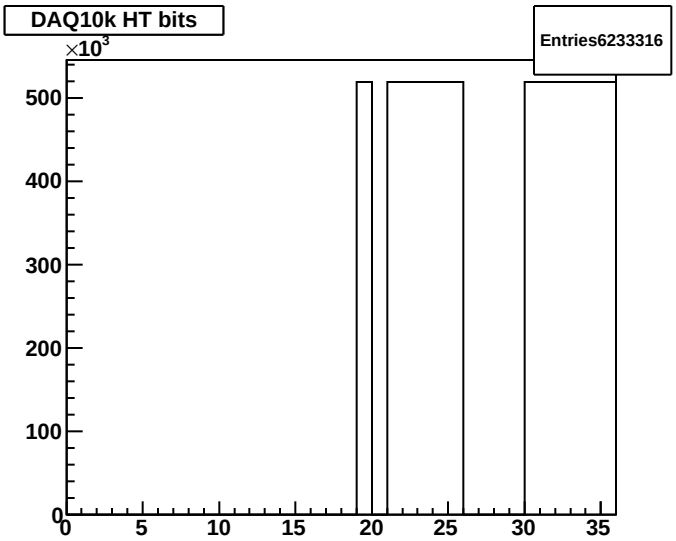

EMC L2 Input - Partial JP Sum
Entries 433112
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

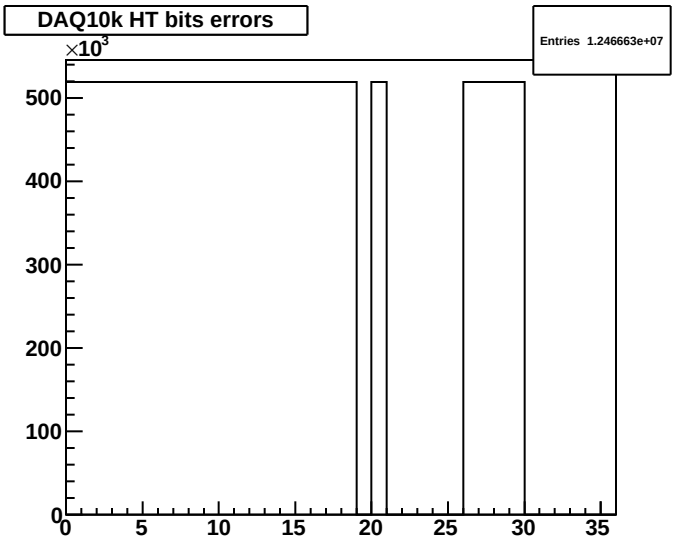

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4155544
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

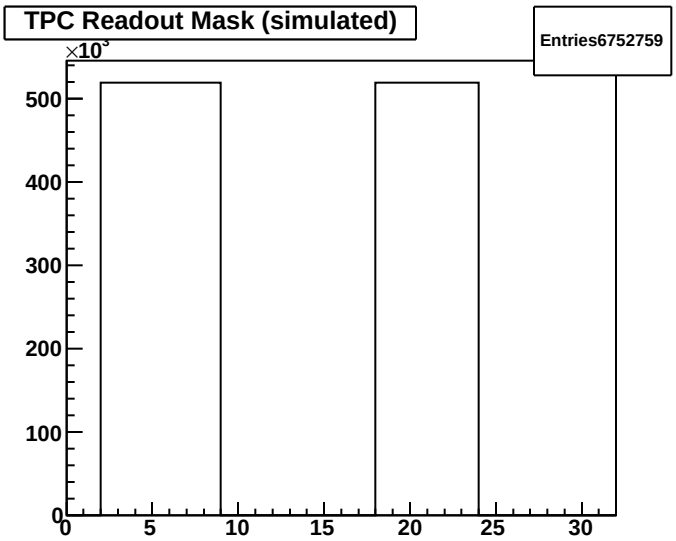

EMC L2 Input - HT01 bits/Partial JP ID
Entries 53729
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

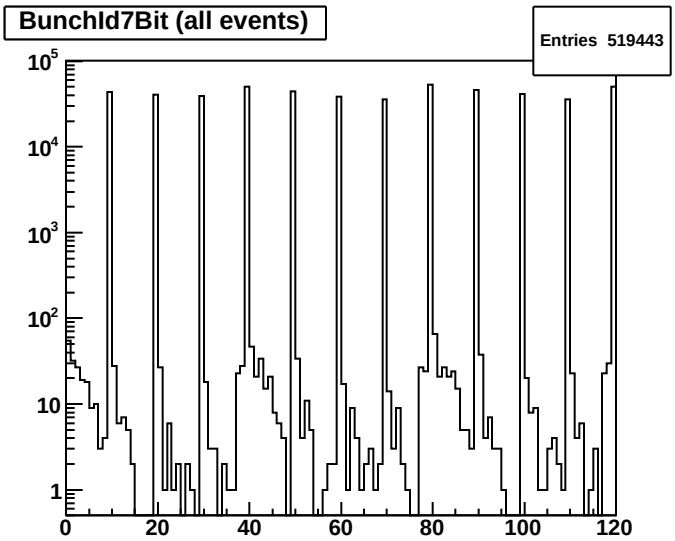

EMC L2 Input - HT23 bits
Entries 4155544
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

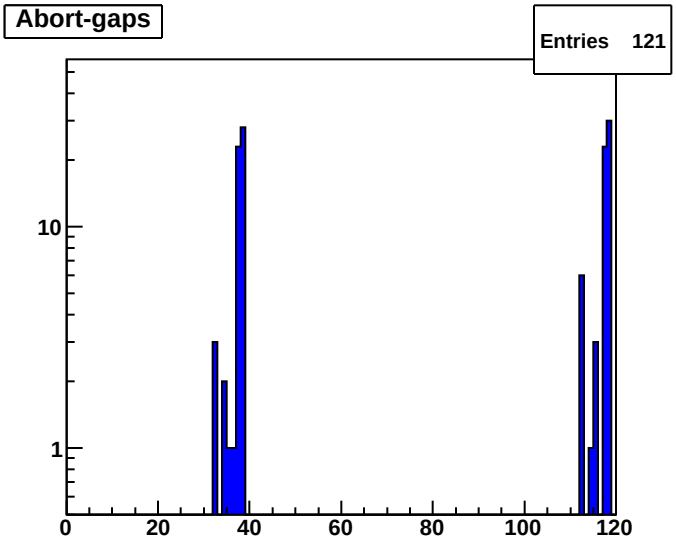

EMC L2 Input - HT23 bits
Entries 2
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

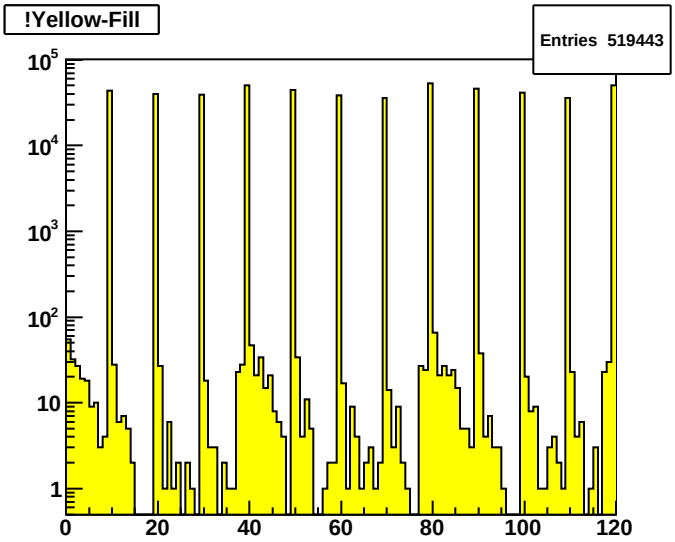

DAQ10k HT bits
Entries6233316
×10^3
500
400
300
200
100
0
0 5 10 15 20 25 30 35

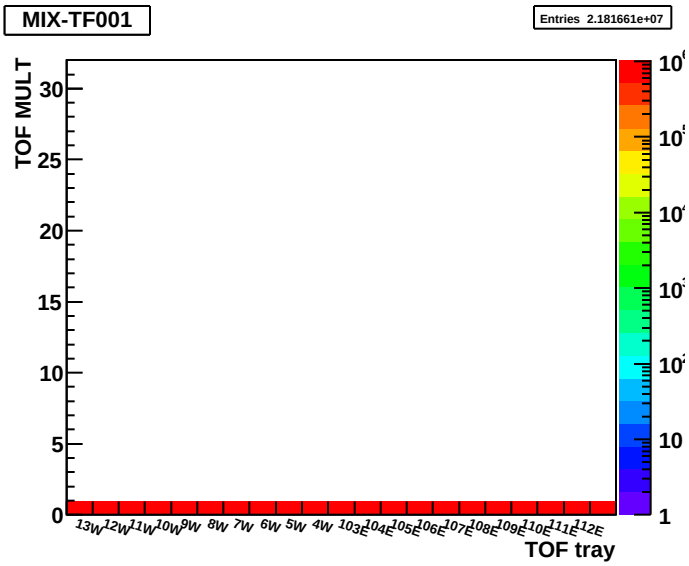

DAQ10k HT bits errors
Entries 1.246663e+07
×10^3
500
400
300
200
100
0
0 5 10 15 20 25 30 35

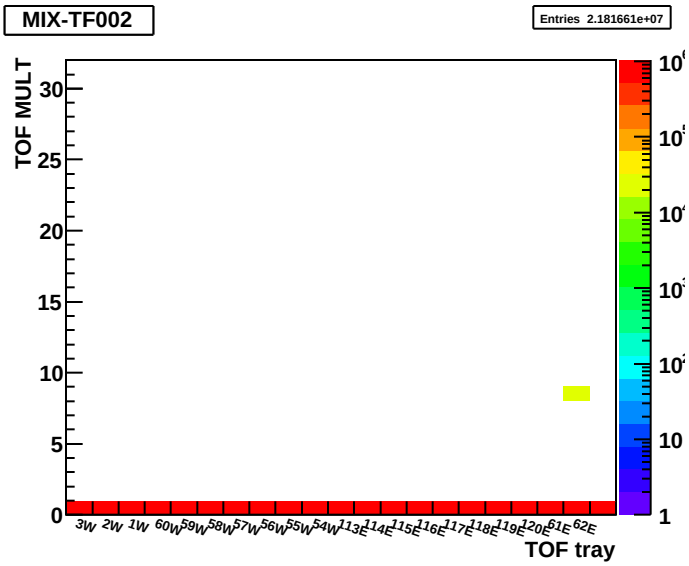

TPC Readout Mask (simulated)
Entries6752759
×10^3
500
400
300
200
100
0
0 5 10 15 20 25 30

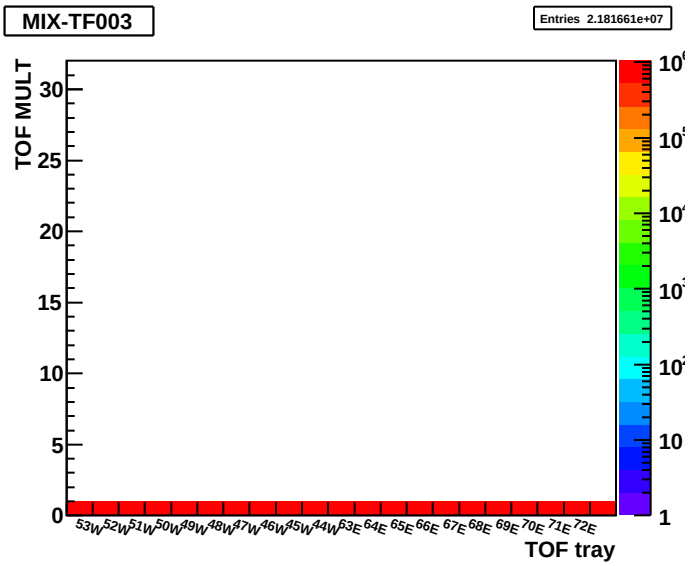

BunchId7Bit (all events)
Entries 519443
10^5
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

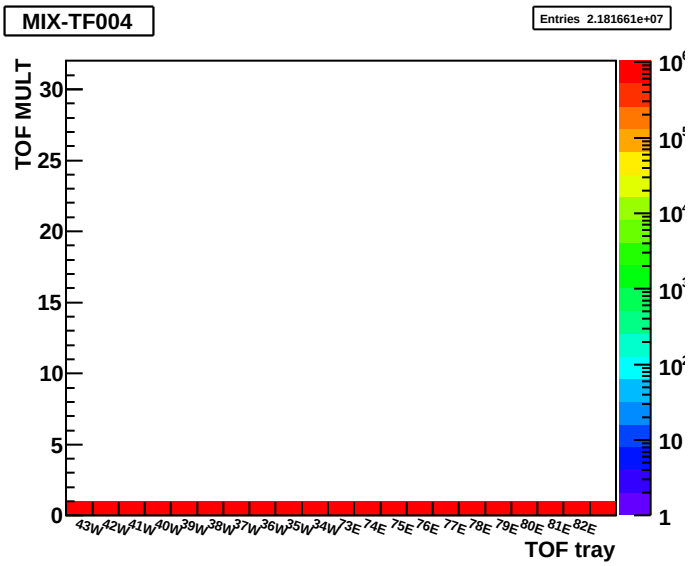

Abort-gaps
Entries 121
10
1
0 20 40 60 80 100 120

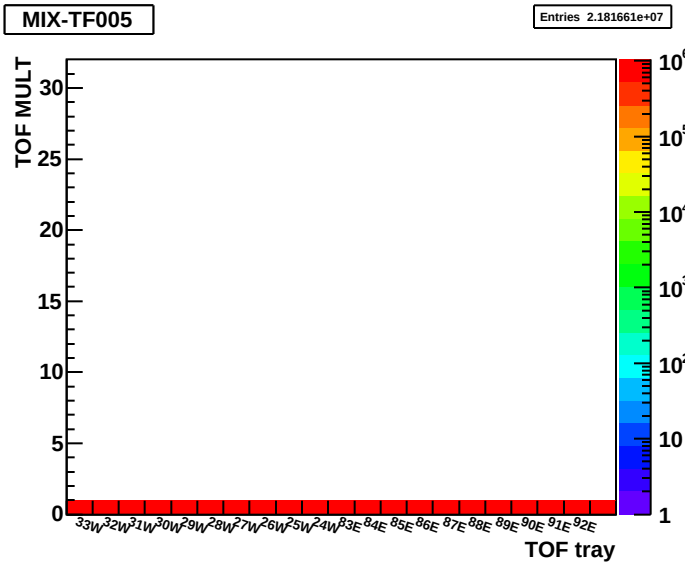

!Yellow-Fill
Entries 519443
10^5
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

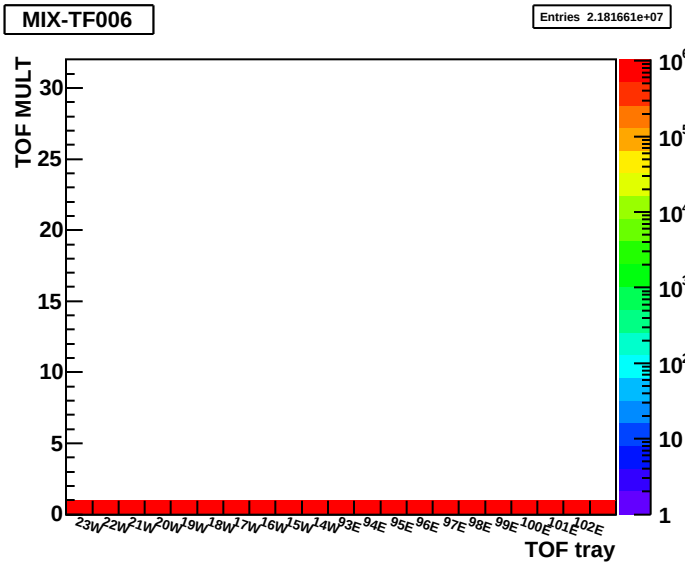

MIX-TF001
Entries 2.181661e+07
TOF MULT
TOF tray

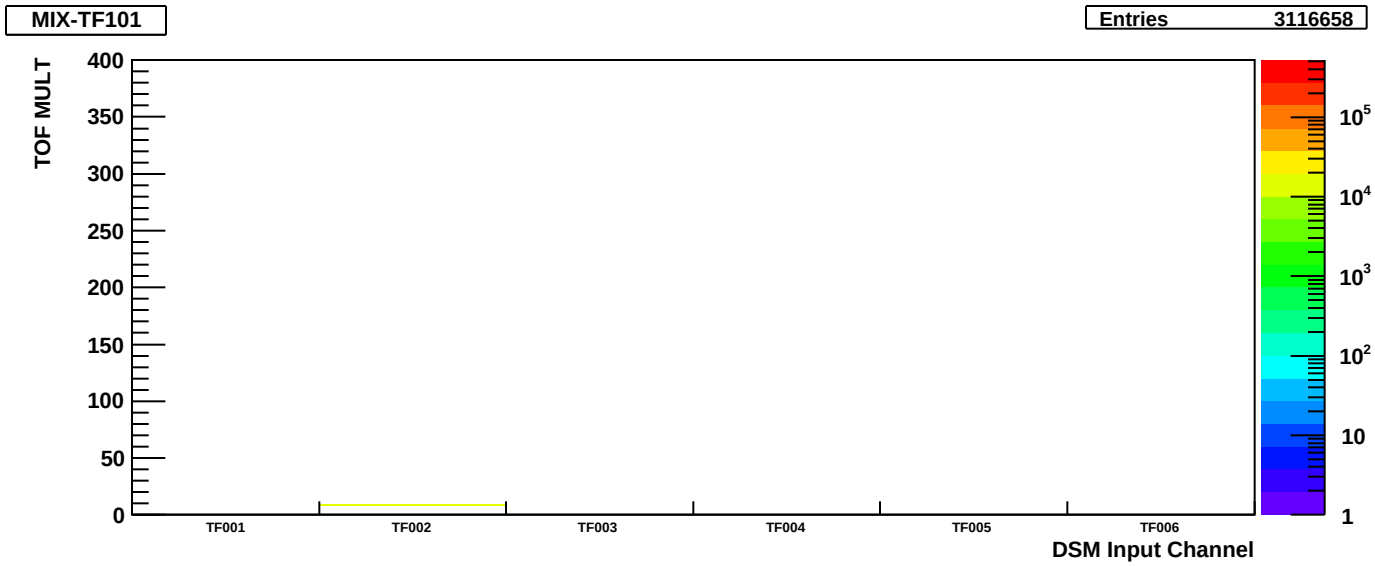

MIX-TF002
Entries 2.181661e+07
TOF MULT
TOF tray

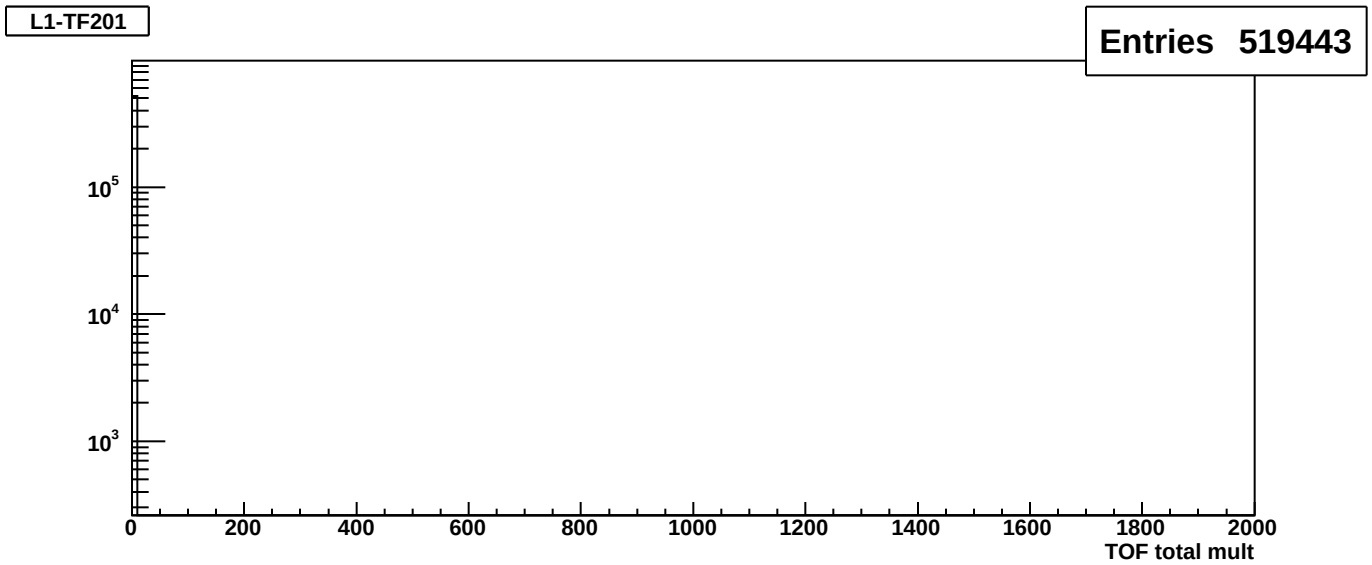

MIX-TF003
Entries 2.181661e+07
TOF MULT
TOF tray

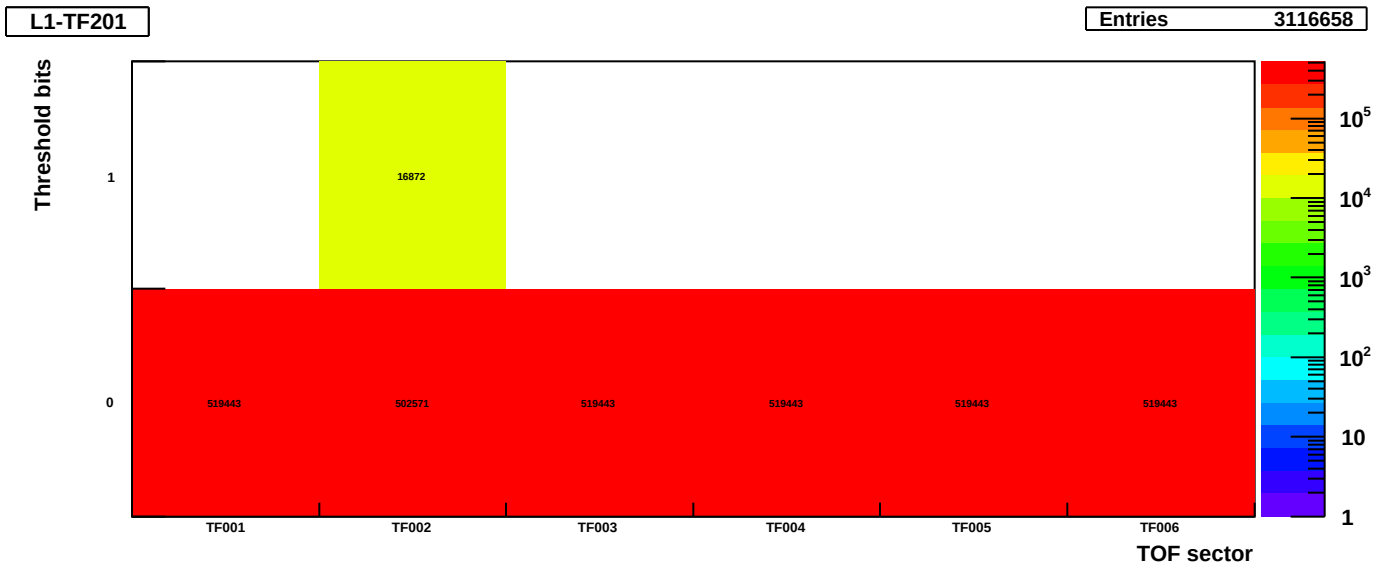

MIX-TF004
Entries 2.181661e+07
TOF MULT
TOF tray

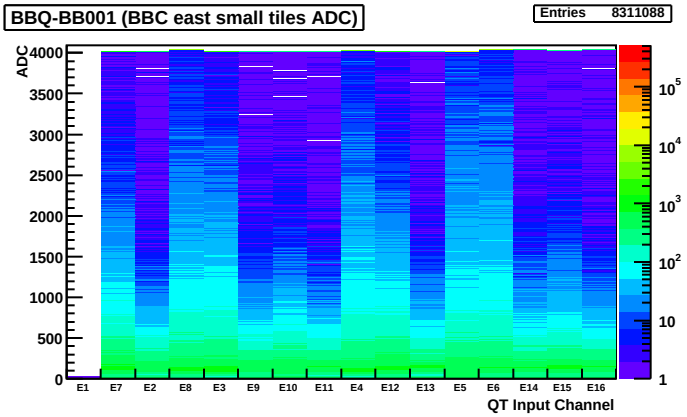

MIX-TF005
Entries 2.181661e+07
TOF MULT
TOF tray

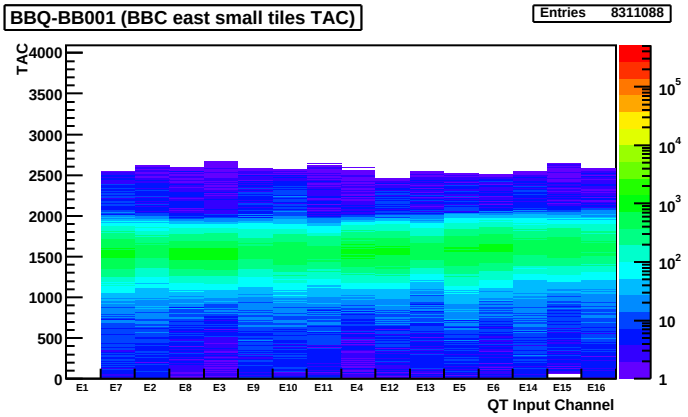

MIX-TF006
Entries 2.181661e+07
TOF MULT
TOF tray

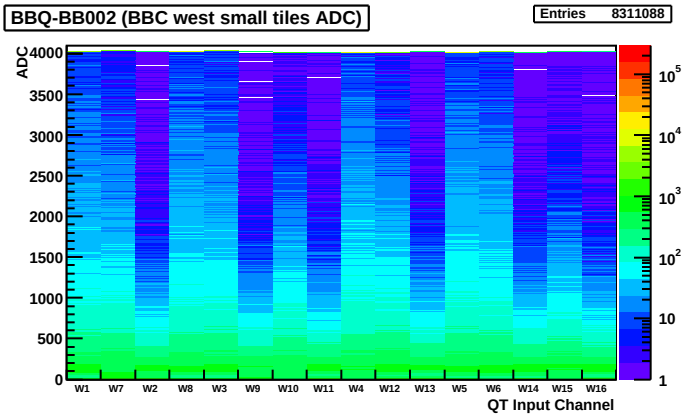

MIX-TF101
Entries 3116658
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

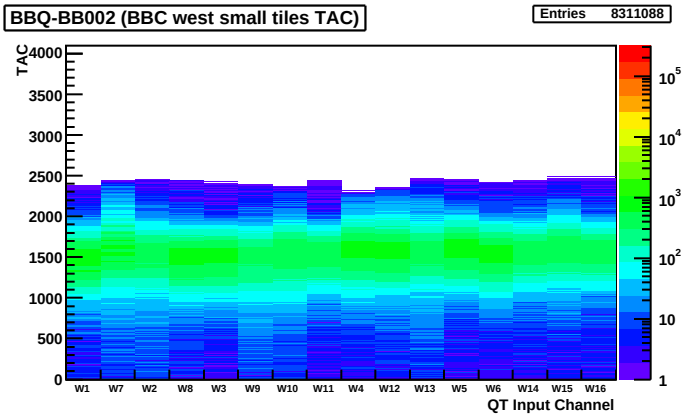

L1-TF201
Entries 519443
10^5
10^4
10^3
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

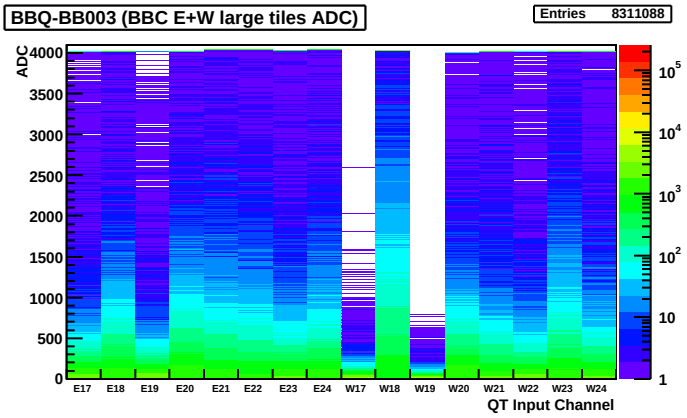

L1-TF201
Entries 3116658
Threshold bits
1
0
16872
519443
502571
519443
519443
519443
519443
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2
10
1

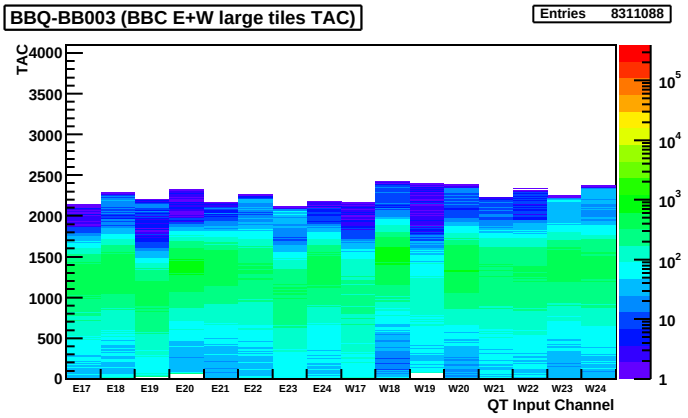

BBQ-BB001 (BBC east small tiles ADC)
Entries 8311088
ADC
QT Input Channel

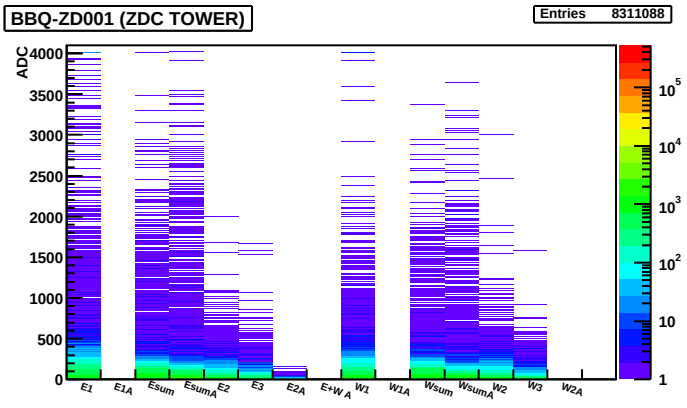

BBQ-BB001 (BBC east small tiles TAC)
Entries 8311088
TAC
QT Input Channel

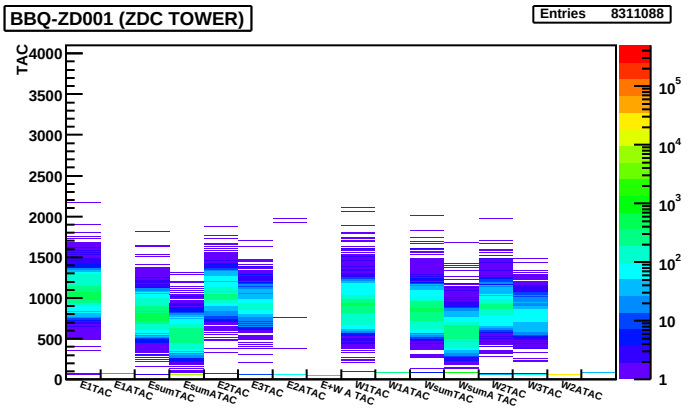

BBQ-BB002 (BBC west small tiles ADC)
Entries 8311088
ADC
QT Input Channel

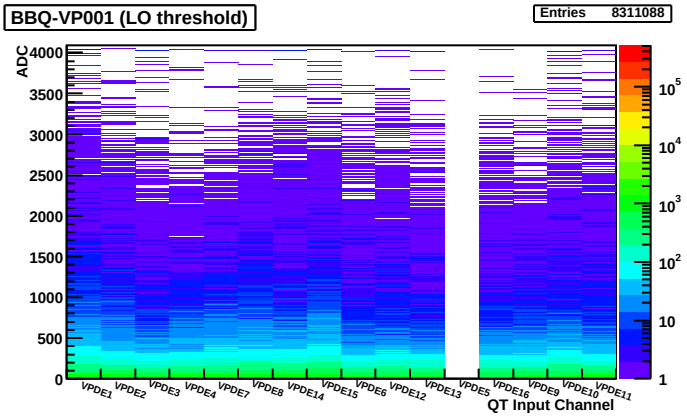

BBQ-BB002 (BBC west small tiles TAC)
Entries 8311088
TAC
QT Input Channel

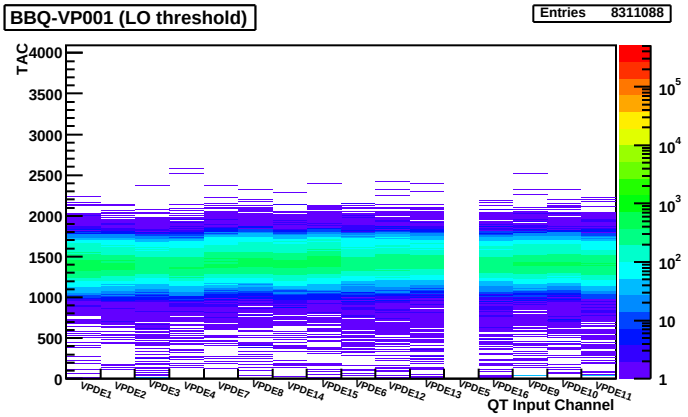

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 8311088
ADC
QT Input Channel

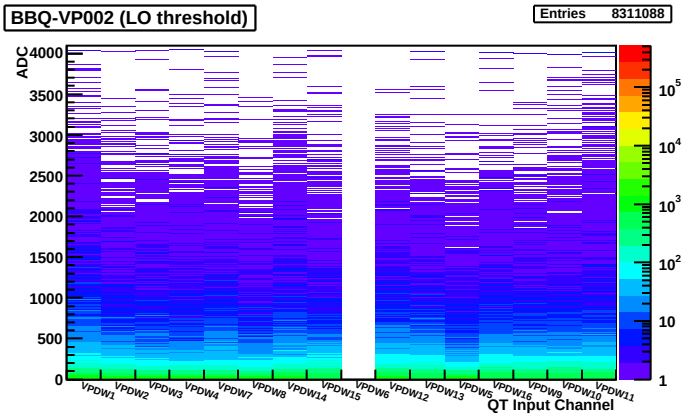

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 8311088
TAC
QT Input Channel

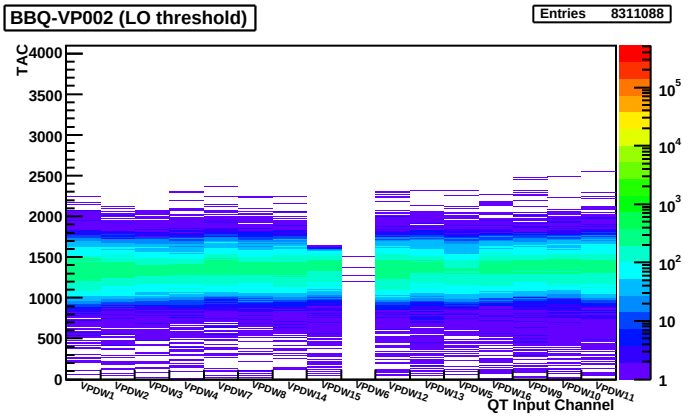

BBQ-ZD001 (ZDC TOWER)
Entries 8311088
ADC

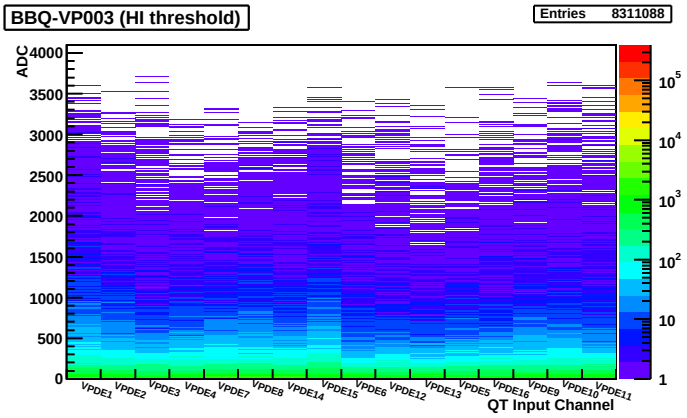

BBQ-ZD001 (ZDC TOWER)
Entries 8311088
TAC

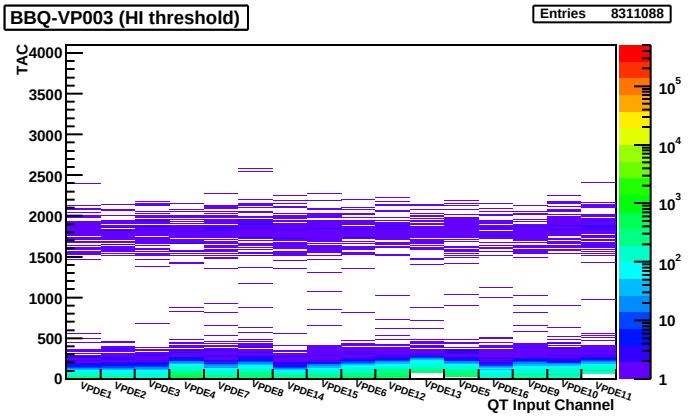

BBQ-VP001 (LO threshold)
Entries 8311088
ADC
QT Input Channel

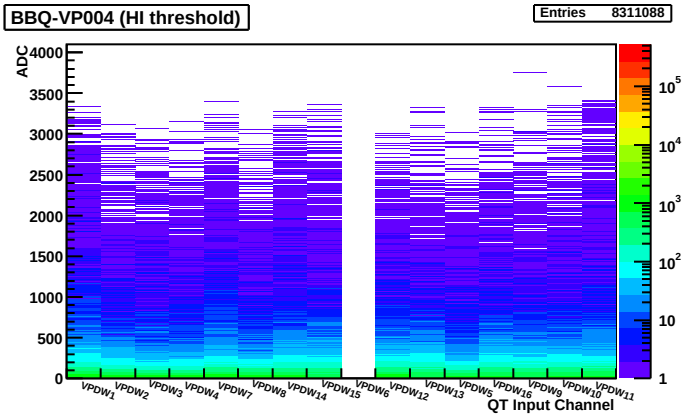

BBQ-VP001 (LO threshold)
Entries 8311088
TAC
QT Input Channel

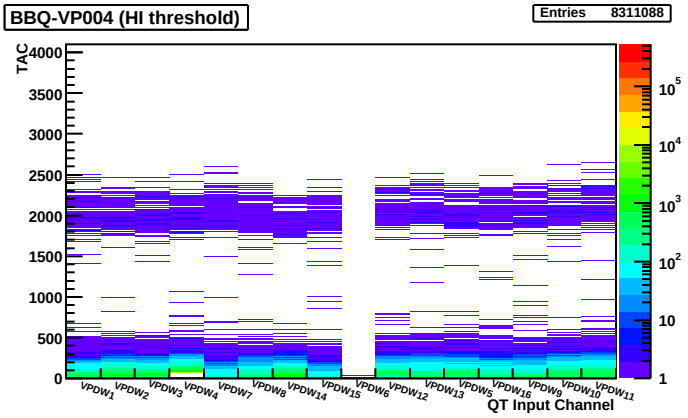

BBQ-VP002 (LO threshold)
Entries 8311088
ADC
QT Input Channel

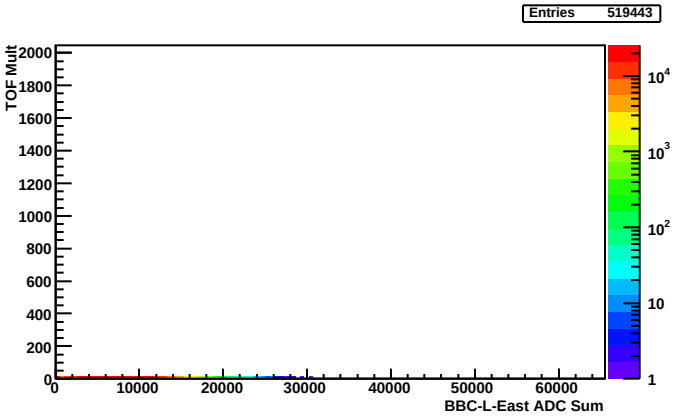

BBQ-VP002 (LO threshold)
Entries 8311088
TAC
QT Input Channel

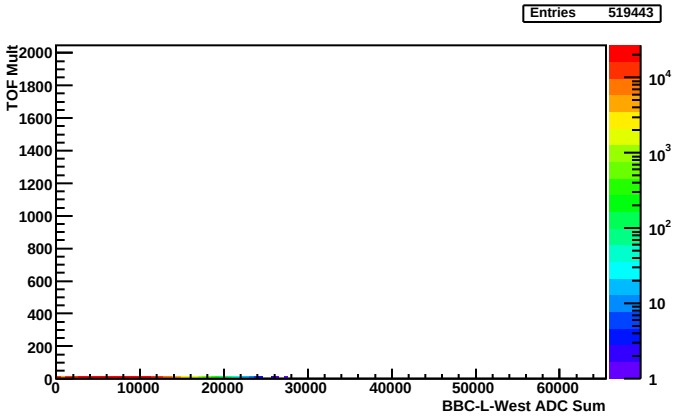

BBQ-VP003 (HI threshold)
Entries 8311088
ADC
QT Input Channel

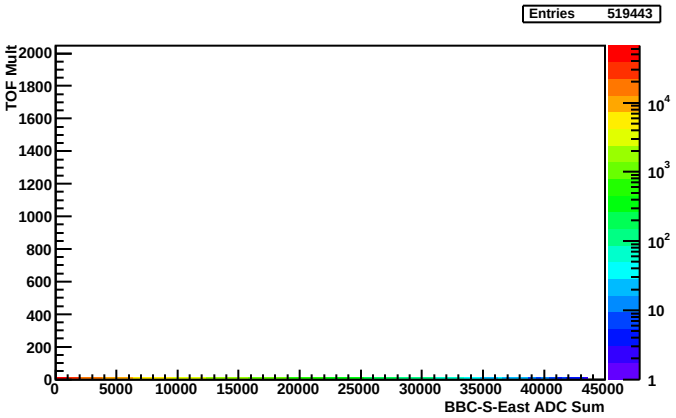

BBQ-VP003 (HI threshold)
Entries 8311088
TAC
QT Input Channel

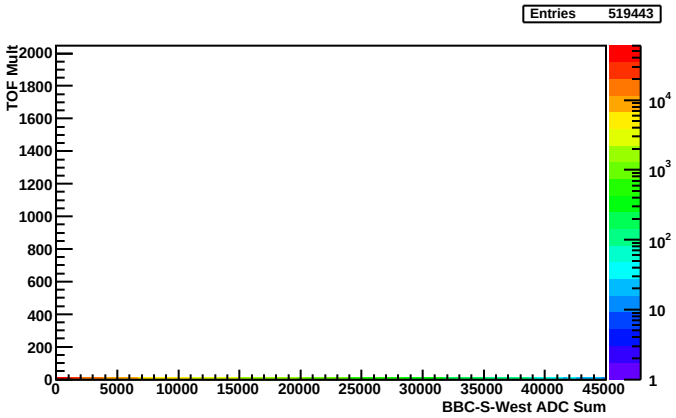

BBQ-VP004 (HI threshold)
Entries 8311088
ADC
QT Input Channel

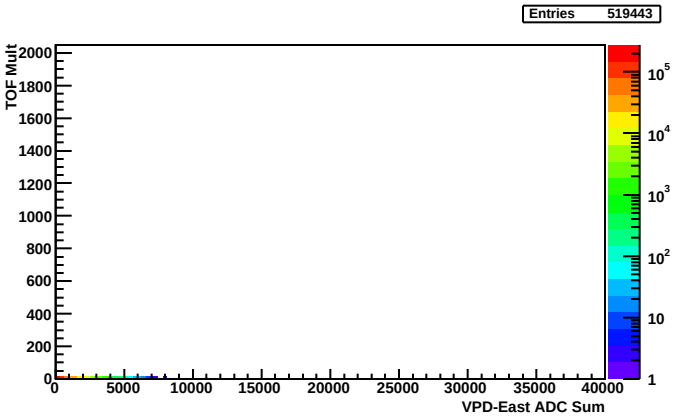

BBQ-VP004 (HI threshold)
Entries 8311088
TAC
QT Input Channel

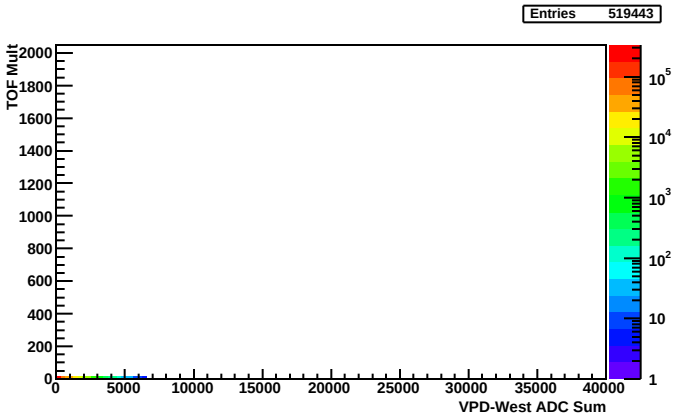

Entries 519443
TOF Mult
BBC-L-East ADC Sum

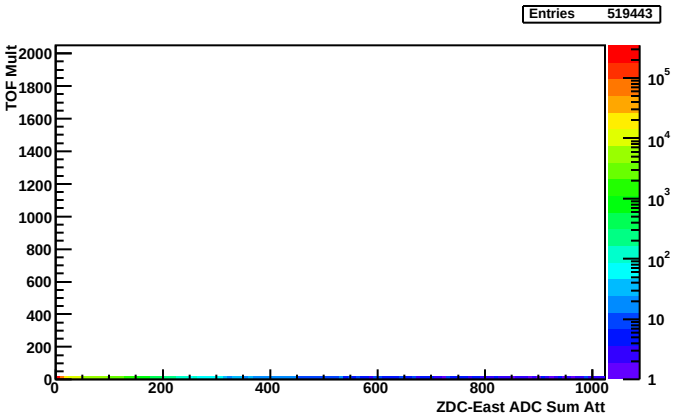

Entries 519443
TOF Mult
BBC-L-West ADC Sum

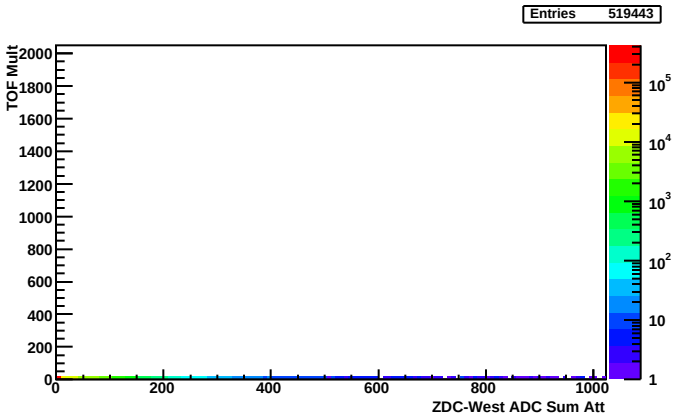

Entries 519443
TOF Mult
BBC-S-East ADC Sum

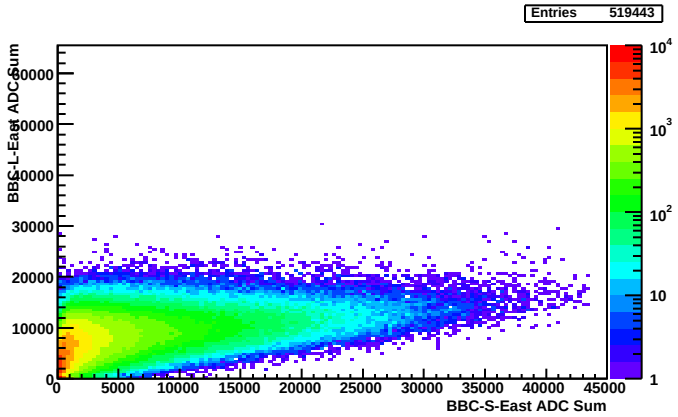

Entries 519443
TOF Mult
BBC-S-West ADC Sum

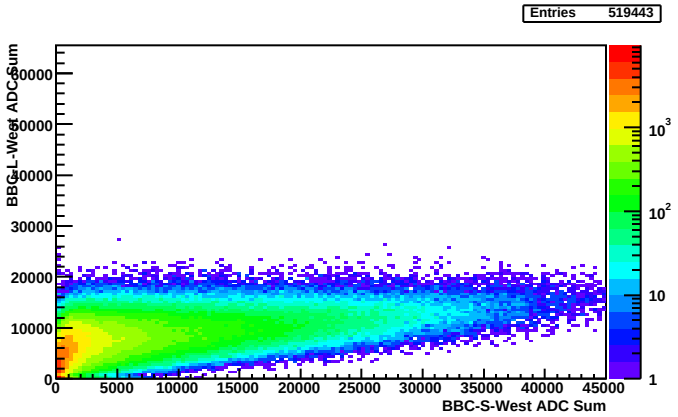

Entries 519443
TOF Mult
VPD-East ADC Sum

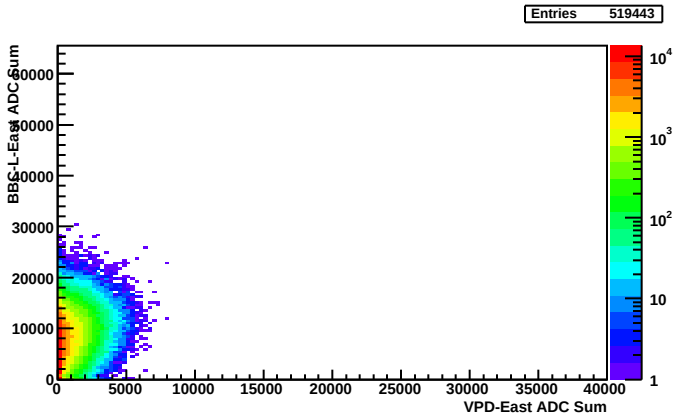

Entries 519443
TOF Mult
VPD-West ADC Sum

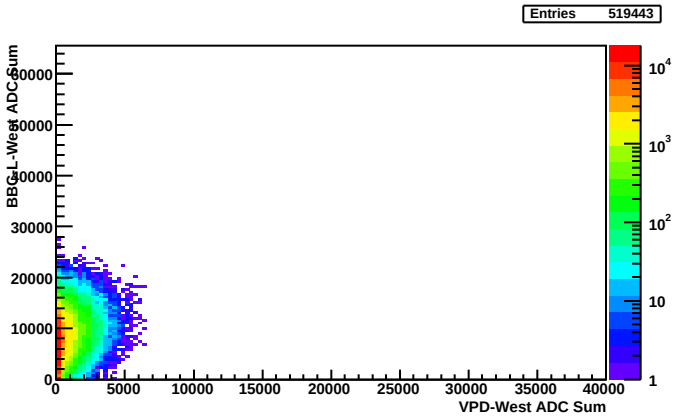

Entries 519443
TOF Mult
ZDC-East ADC Sum Att

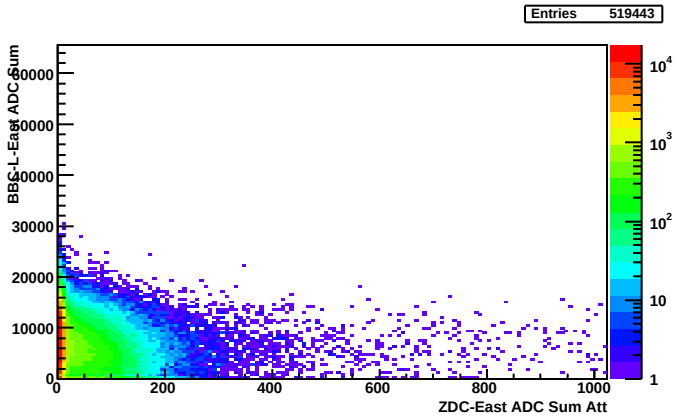

Entries 519443
TOF Mult
ZDC-West ADC Sum Att

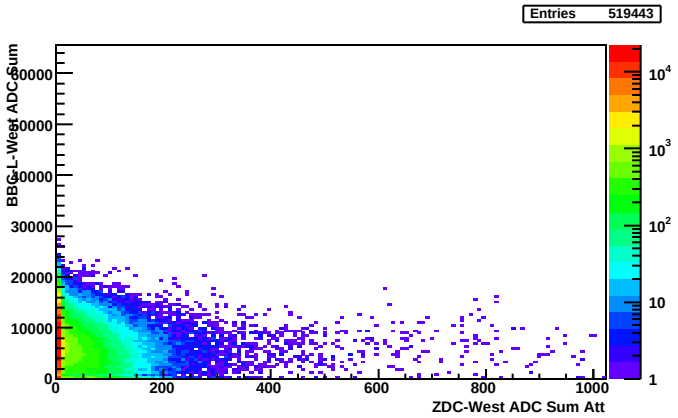

Entries 519443
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 519443
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 519443
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 519443
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 519443
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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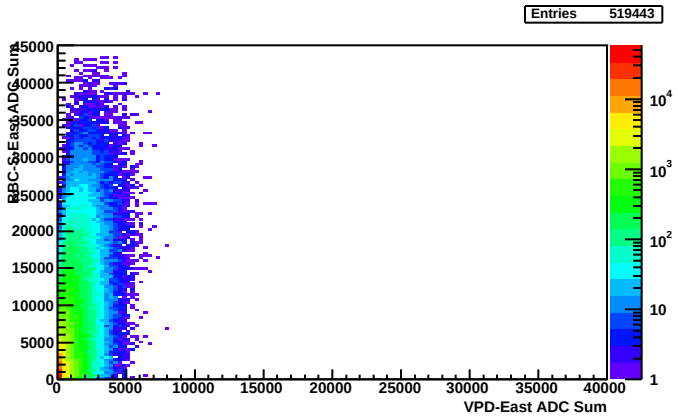
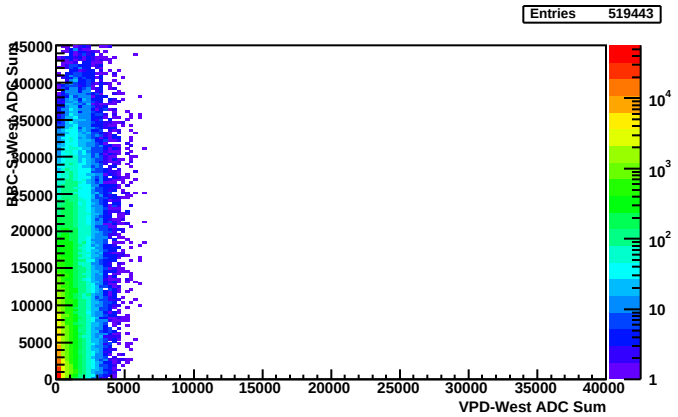
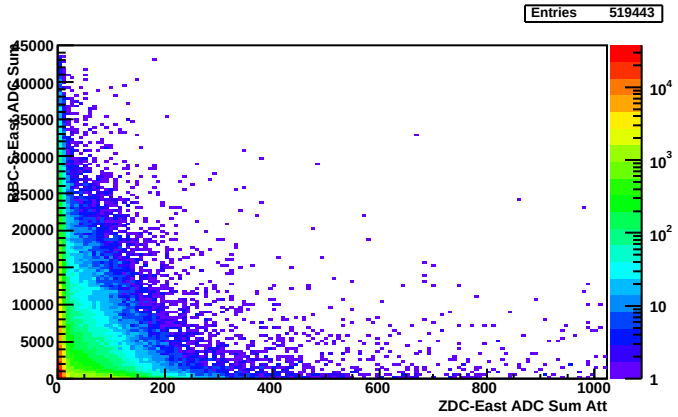
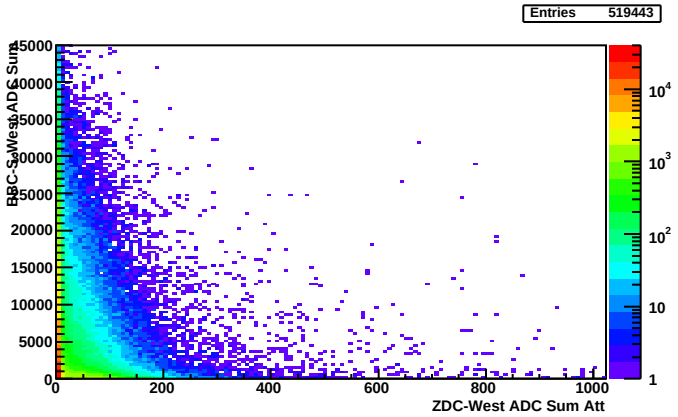
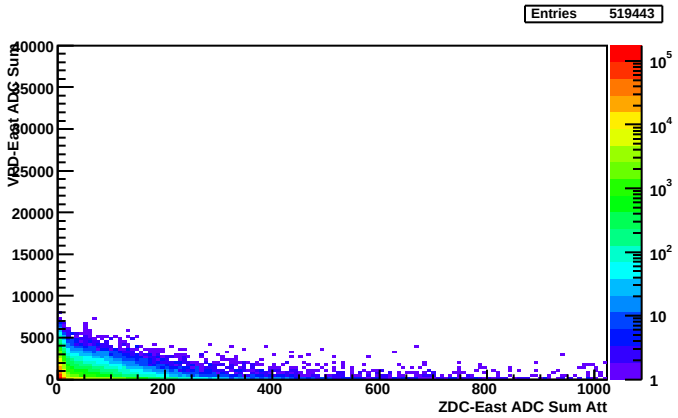
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

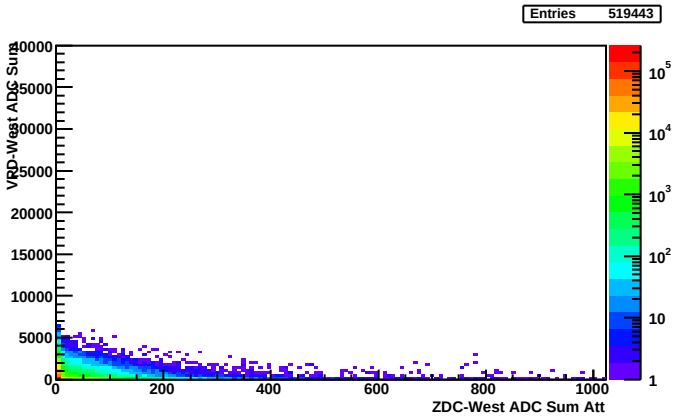

Entries 519443
BBC-S-East ADC Sum
VPD-East ADC Sum

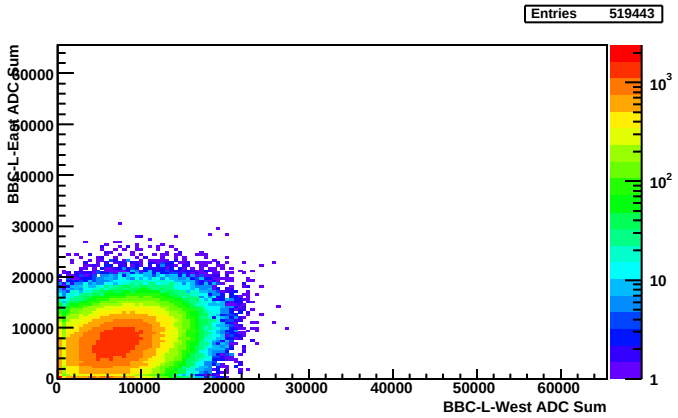

Entries 519443
BBC-S-West ADC Sum
VPD-West ADC Sum

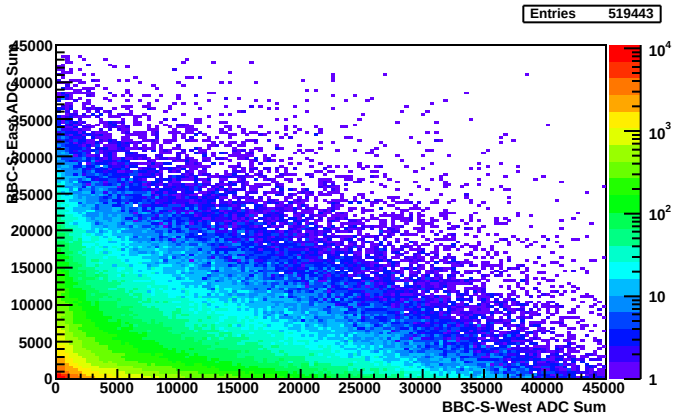

Entries 519443
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

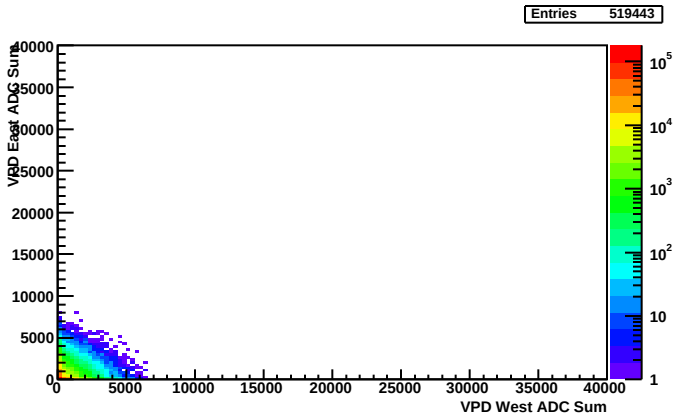

Entries 519443
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

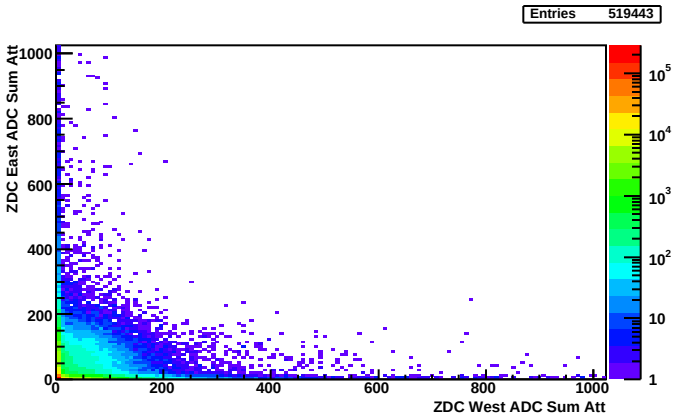

Entries 519443
VPD-East ADC Sum
ZDC-East ADC Sum Att

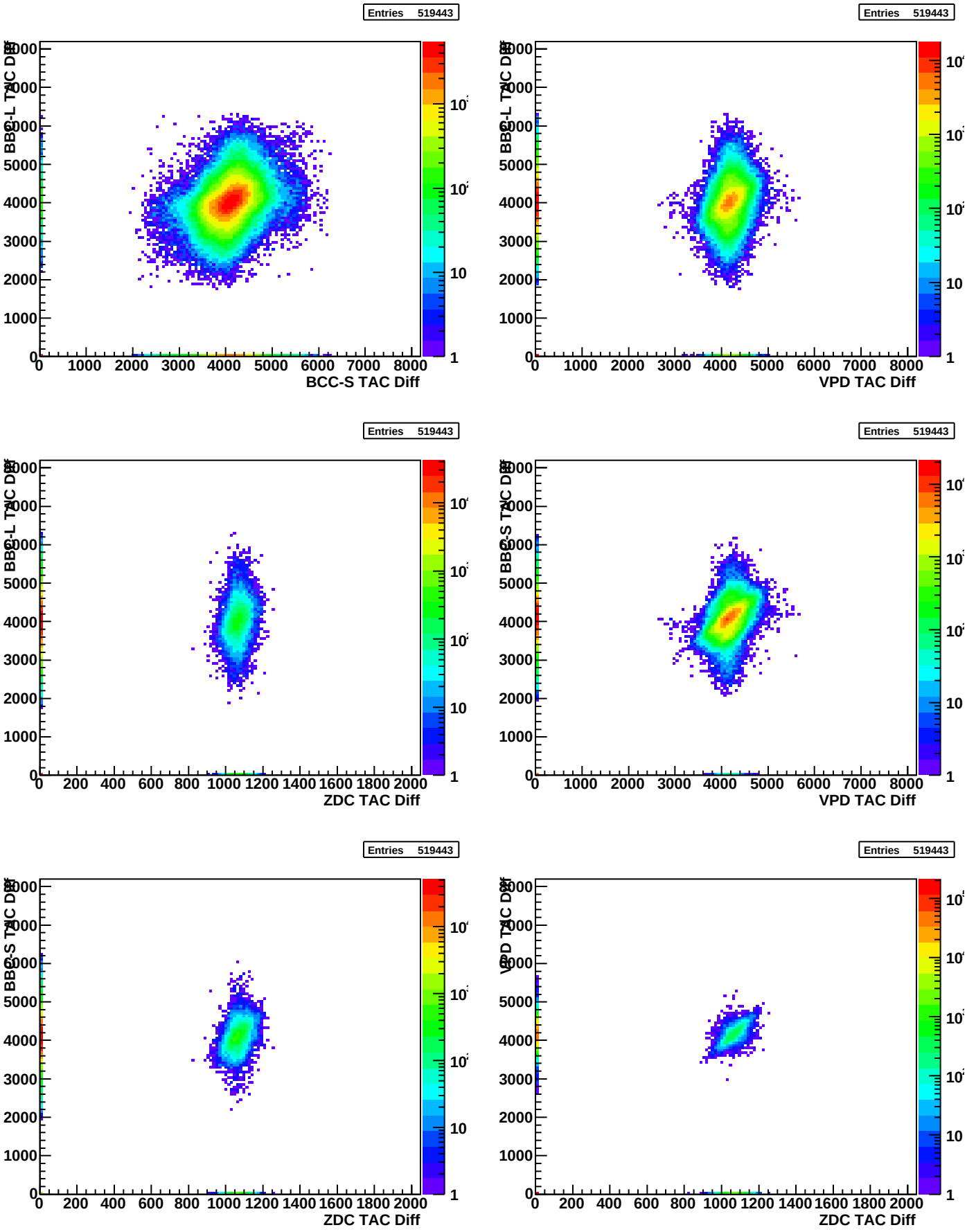

Entries 519443
VPD-West ADC Sum
ZDC-West ADC Sum Att

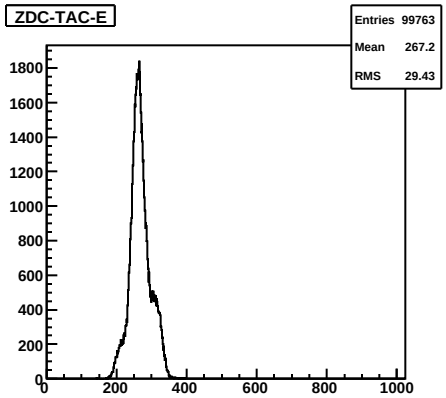

Entries 519443
BBC-L-East ADC Sum
BBC-L-West ADC Sum

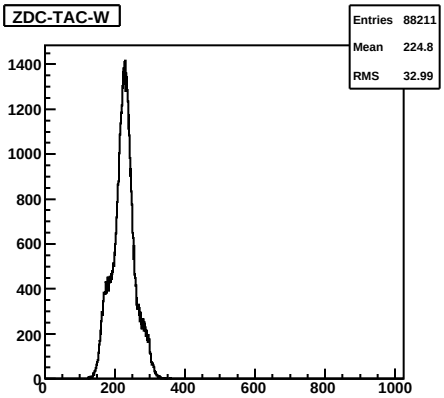

Entries 519443
BBC-S-East ADC Sum
BBC-S-West ADC Sum

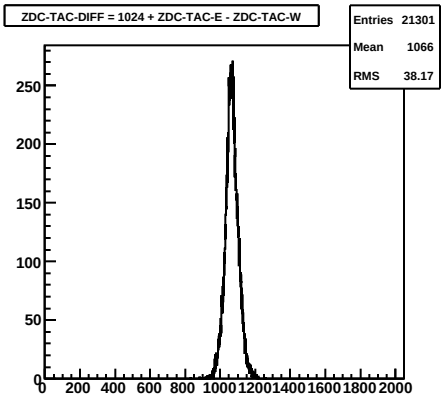

Entries 519443
VPD East ADC Sum
VPD West ADC Sum

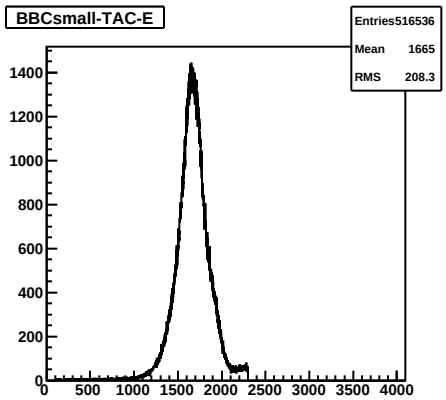

Entries 519443
ZDC East ADC Sum Att
ZDC West ADC Sum Att

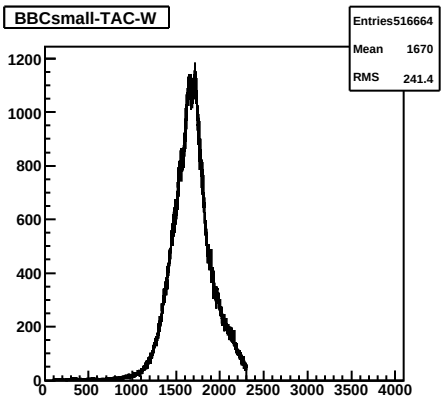

Entries 519443
BBC-L TAC Diff
BCC-S TAC Diff
Entries 519443
BBC-L TAC Diff
VPD TAC Diff
Entries 519443
BBC-L TAC Diff
ZDC TAC Diff
Entries 519443
BBC-S TAC Diff
VPD TAC Diff
Entries 519443
BBC-S TAC Diff
ZDC TAC Diff
Entries 519443
VPD TAC Diff
ZDC TAC Diff

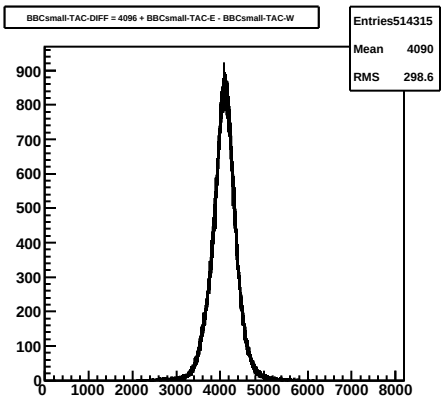

ZDC-TAC-E
Entries 99763
Mean 267.2
RMS 29.43

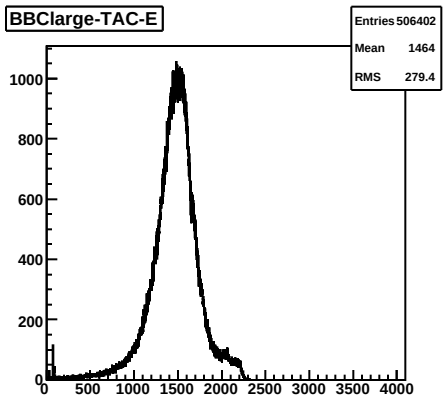

ZDC-TAC-W
Entries 88211
Mean 224.8
RMS 32.99

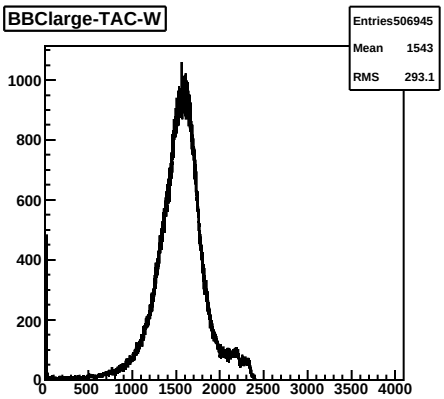

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 21301
Mean 1066
RMS 38.17

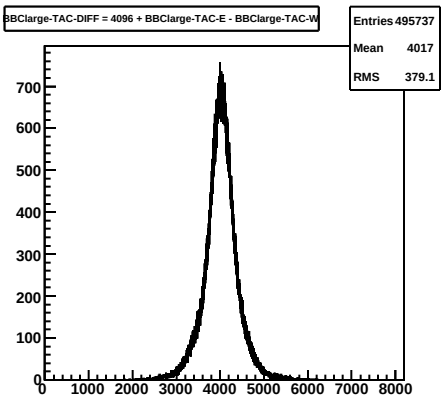

BBCsmall-TAC-E
Entries516536
Mean 1665
RMS 208.3

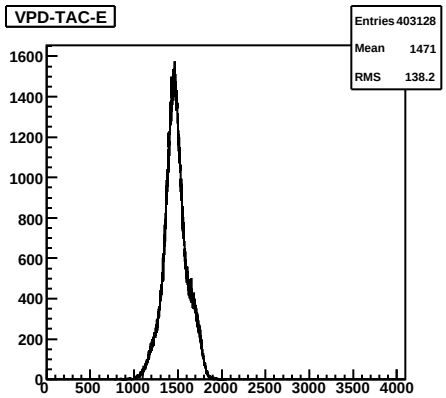

BBCsmall-TAC-W
Entries516664
Mean 1670
RMS 241.4

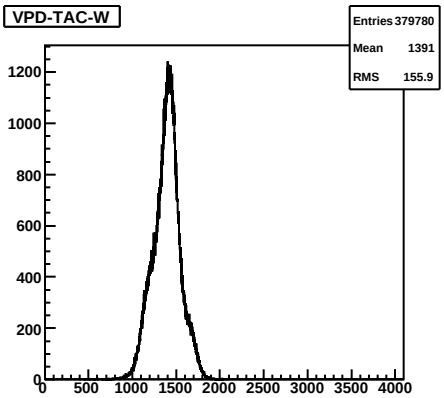

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries514315
Mean 4090
RMS 298.6

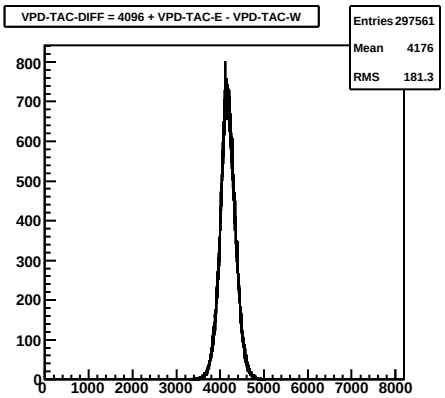

BBClarge-TAC-E
Entries 506402
Mean 1464
RMS 279.4

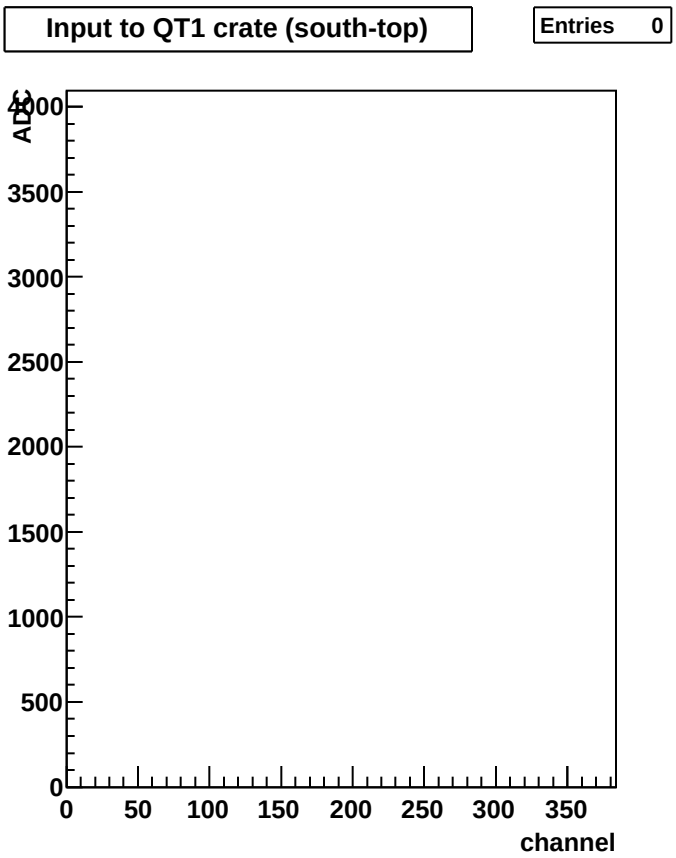

BBClarge-TAC-W
Entries506945
Mean 1543
RMS 293.1

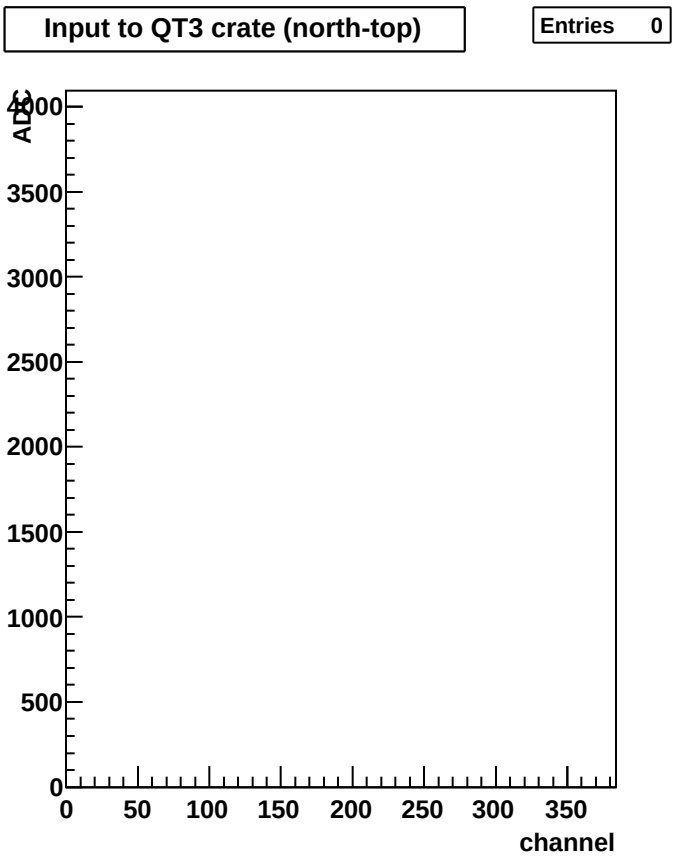

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 495737
Mean 4017
RMS 379.1

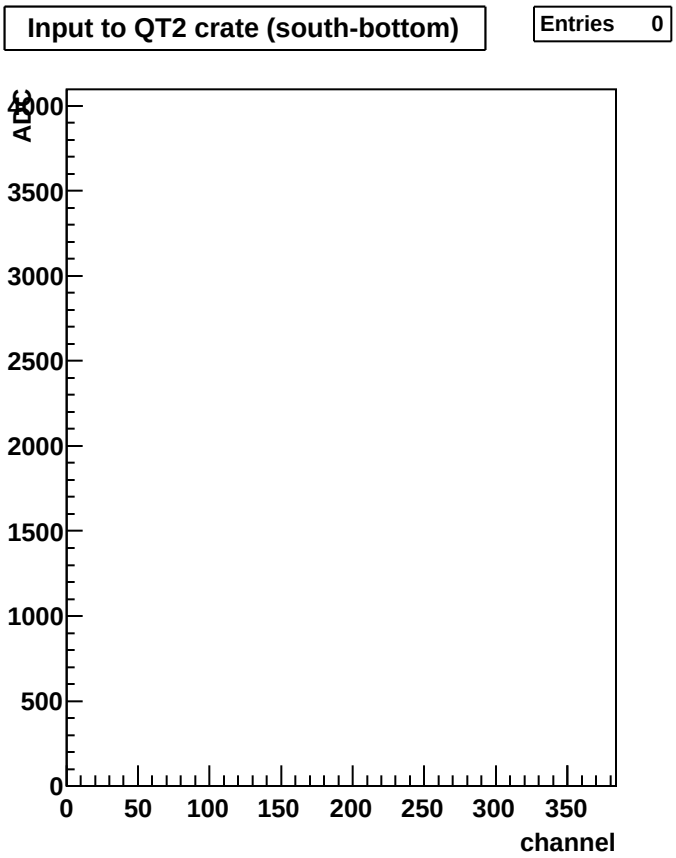

VPD-TAC-E
Entries 403128
Mean 1471
RMS 138.2

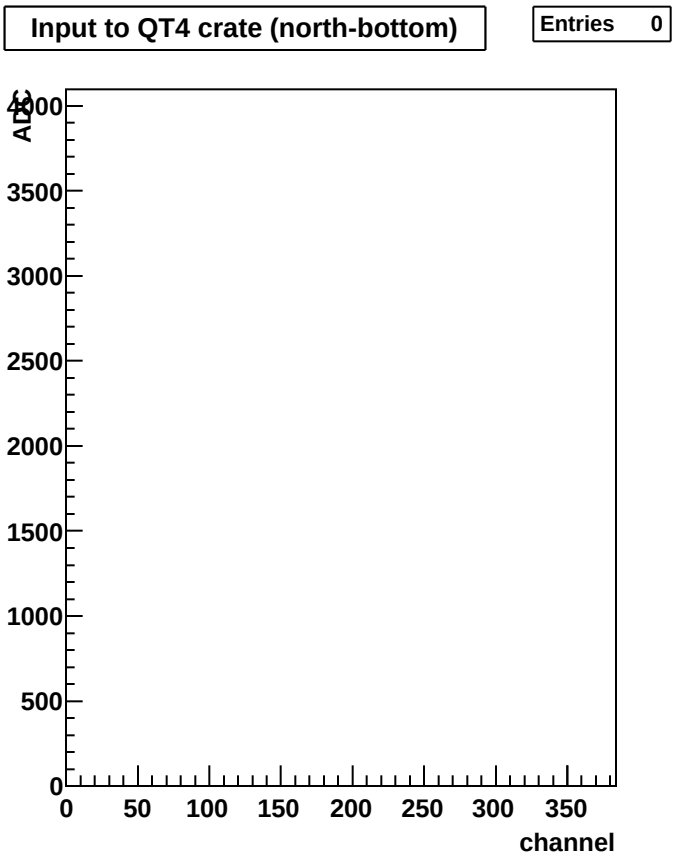

VPD-TAC-W
Entries 379780
Mean 1391
RMS 155.9

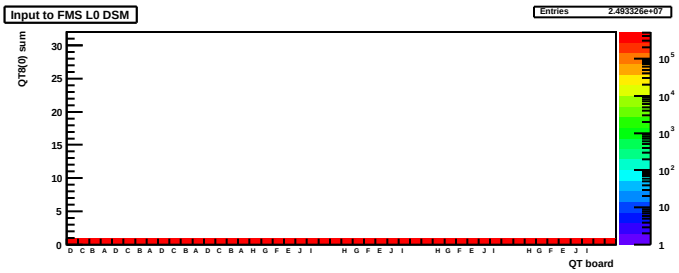

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 297561
Mean 4176
RMS 181.3

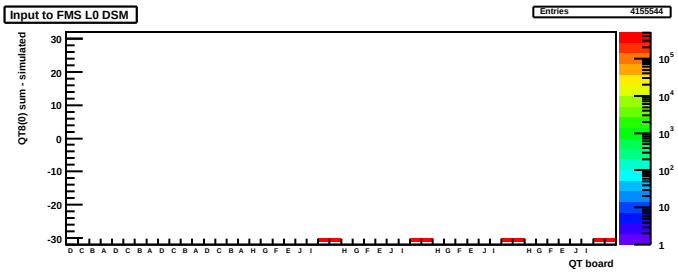

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

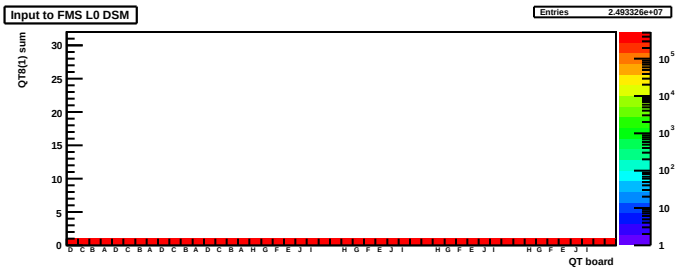

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

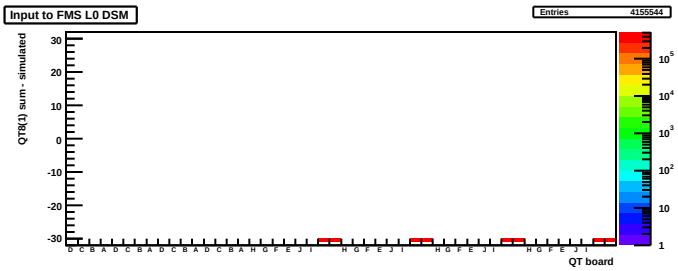

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

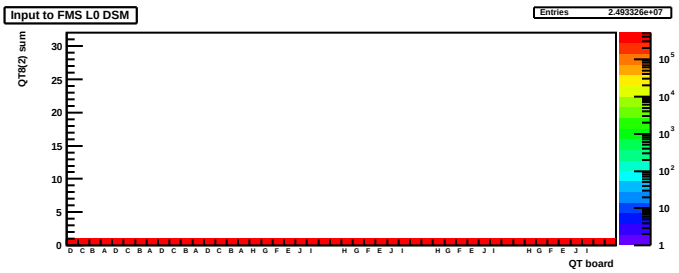

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

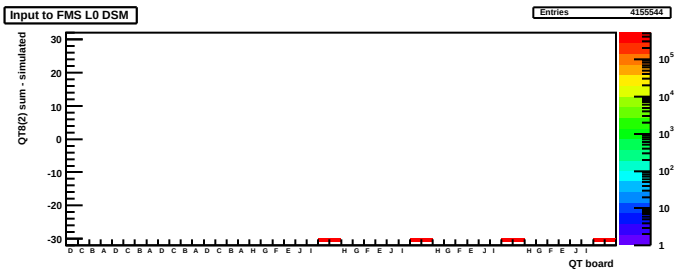

Input to FMS L0 DSM
Entries 2.493326e+07
QT8(0) sum
QT board

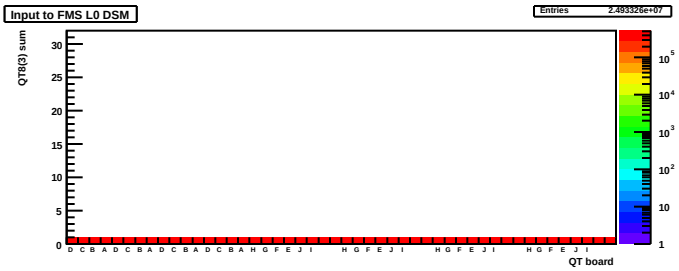

Input to FMS L0 DSM
Entries 4155544
QT8(0) sum - simulated
QT board

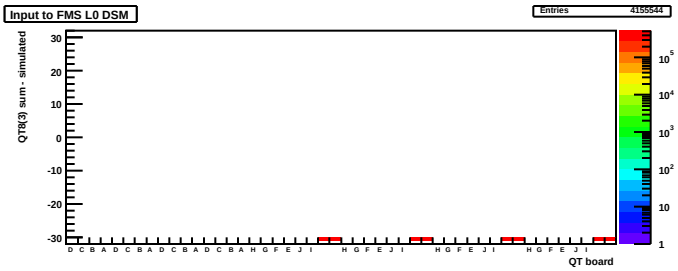

Input to FMS L0 DSM
Entries 2.493326e+07
QT8(1) sum
QT board

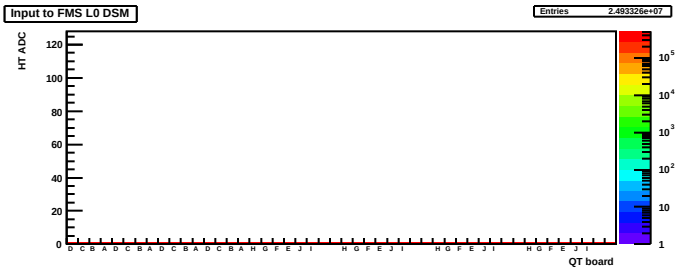

Input to FMS L0 DSM
Entries 4155544
QT8(1) sum - simulated
QT board

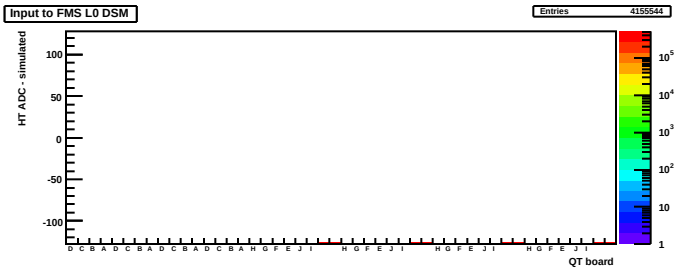

Input to FMS L0 DSM
Entries 2.493326e+07
QT8(2) sum
QT board

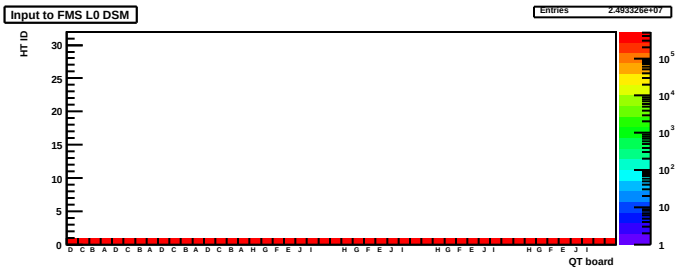

Input to FMS L0 DSM
Entries 4155544
QT8(2) sum - simulated
QT board

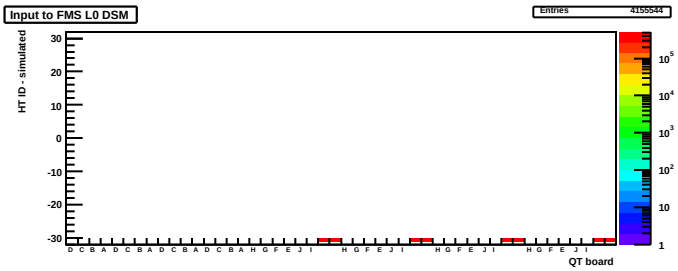

Input to FMS L0 DSM
Entries 2.493326e+07
QT8(3) sum
QT board

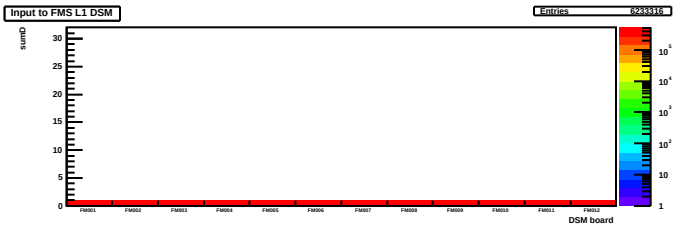

Input to FMS L0 DSM
Entries 4155544
QT8(3) sum - simulated
QT board

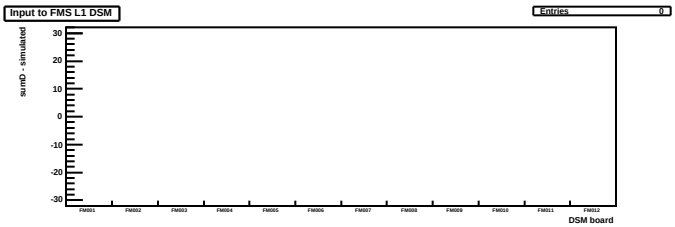

Input to FMS L0 DSM
Entries 2.493326e+07
HT ADC
QT board

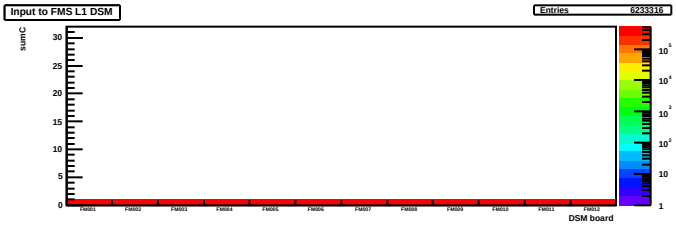

Input to FMS L0 DSM
Entries 4155544
HT ADC - simulated
QT board

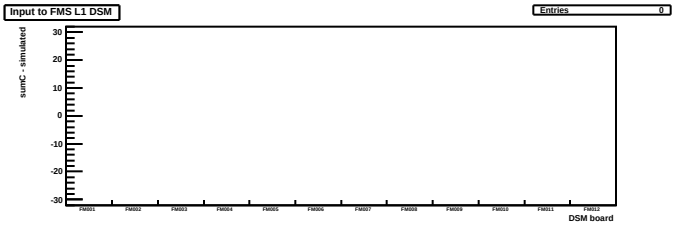

Input to FMS L0 DSM
Entries 2.493326e+07
HT ID
QT board

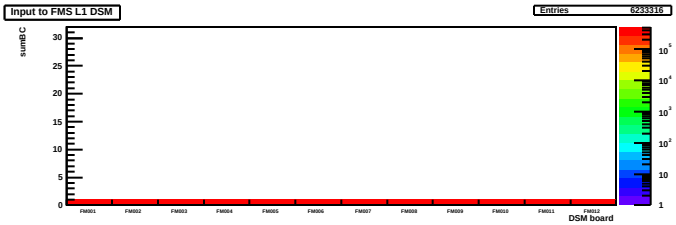

Input to FMS L0 DSM
Entries 4155544
HT ID - simulated
QT board

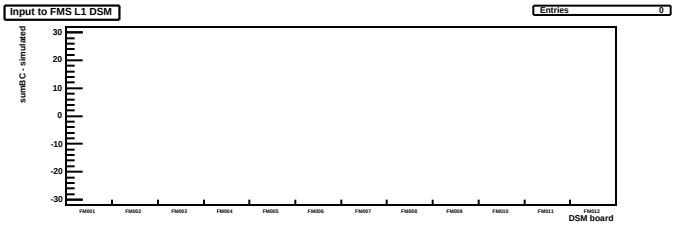

Input to FMS L1 DSM
Entries 6233316
sumD
DSM board

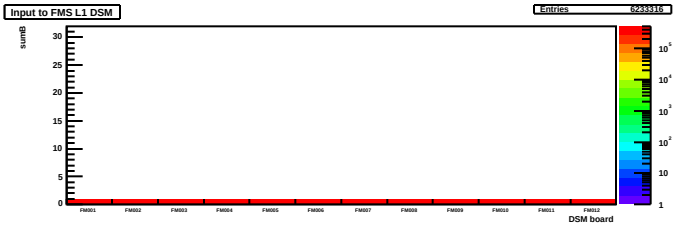

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

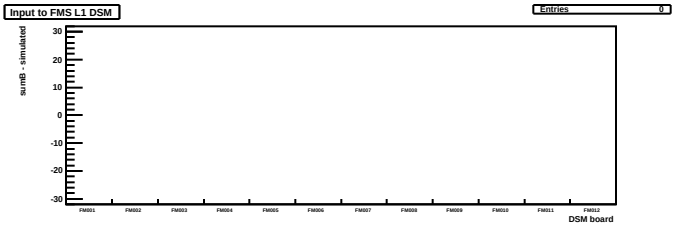

Input to FMS L1 DSM
Entries 6233316
sumC
DSM board

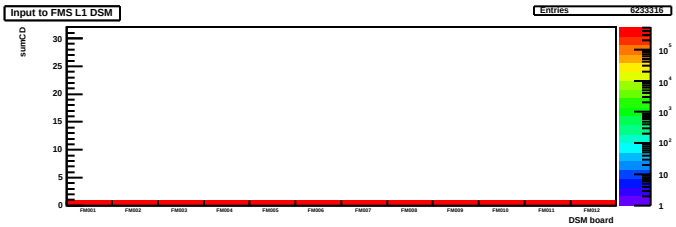

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

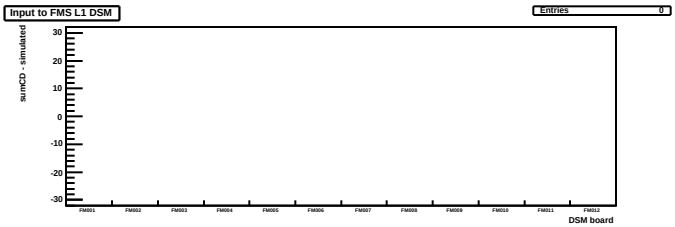

Input to FMS L1 DSM
Entries 6233316
sumBC
DSM board

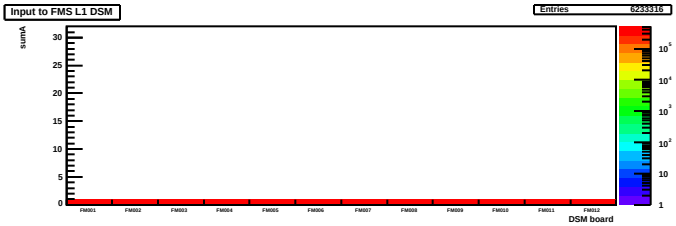

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

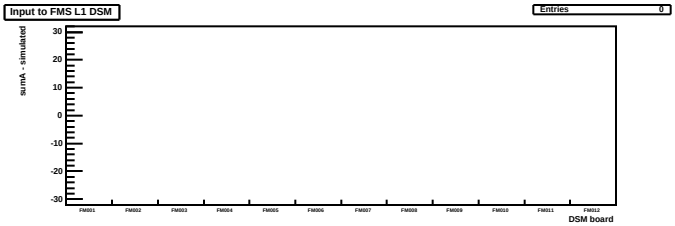

Input to FMS L1 DSM
Entries 6233316
sumB
DSM board

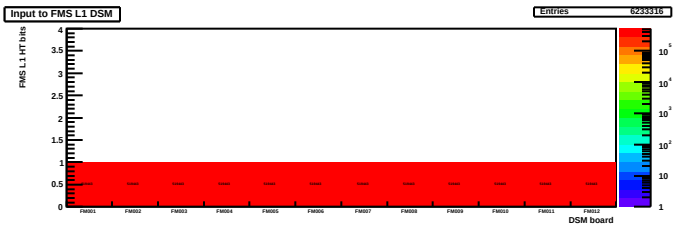

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

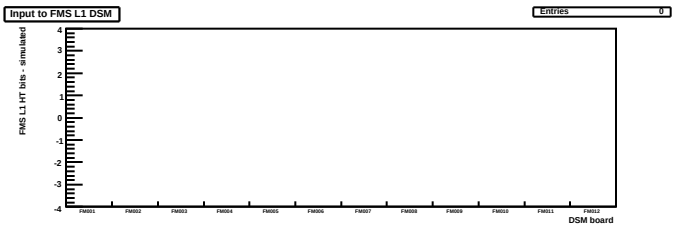

Input to FMS L1 DSM
Entries 6233316
sumCD
DSM board

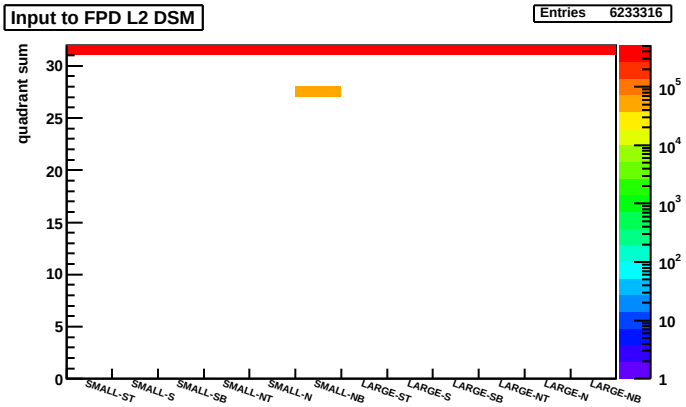

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

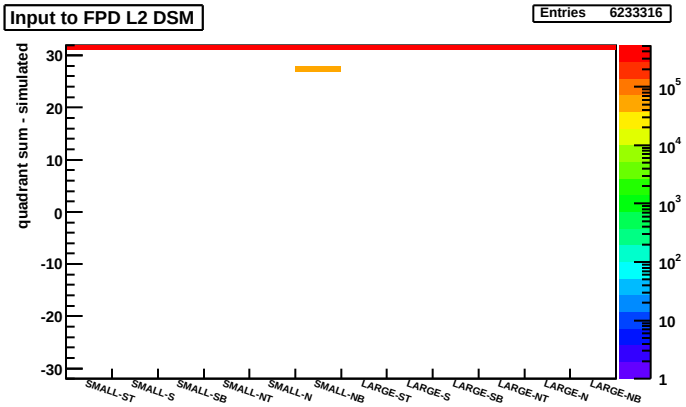

Input to FMS L1 DSM
Entries 6233316
sumA
DSM board

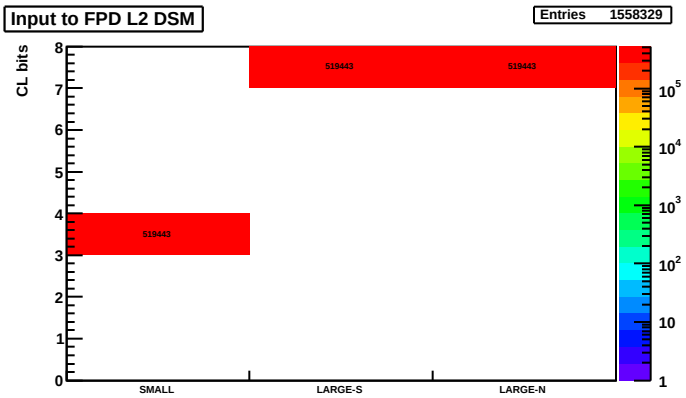

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

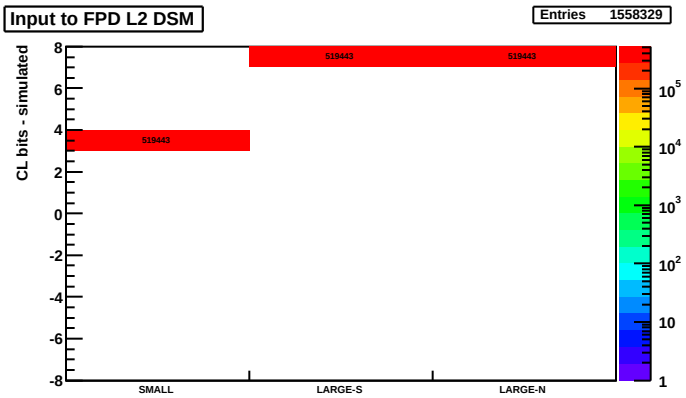

Input to FMS L1 DSM
Entries 6233316
FMS L1 HT bits
DSM board

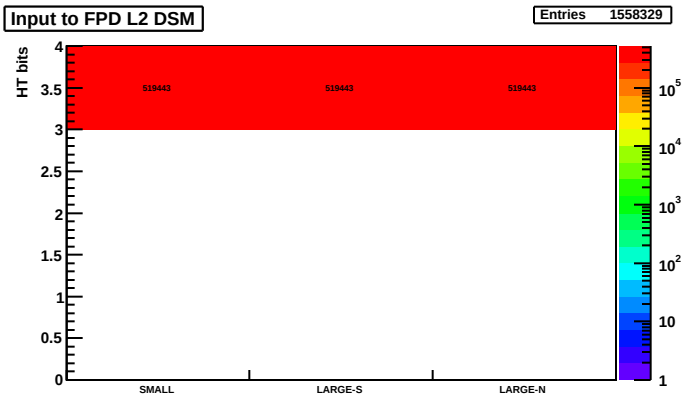

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

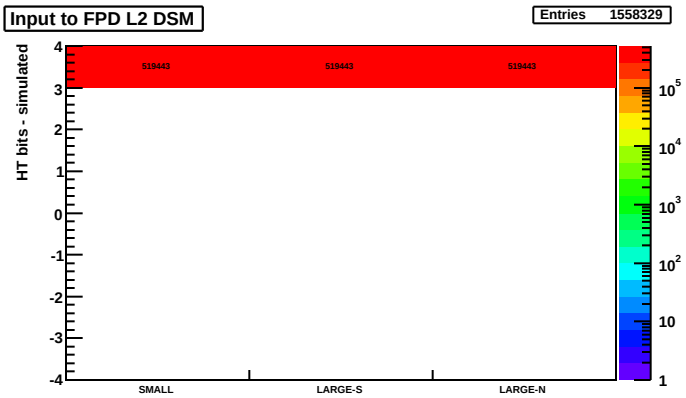

Input to FPD L2 DSM
Entries 6233316
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

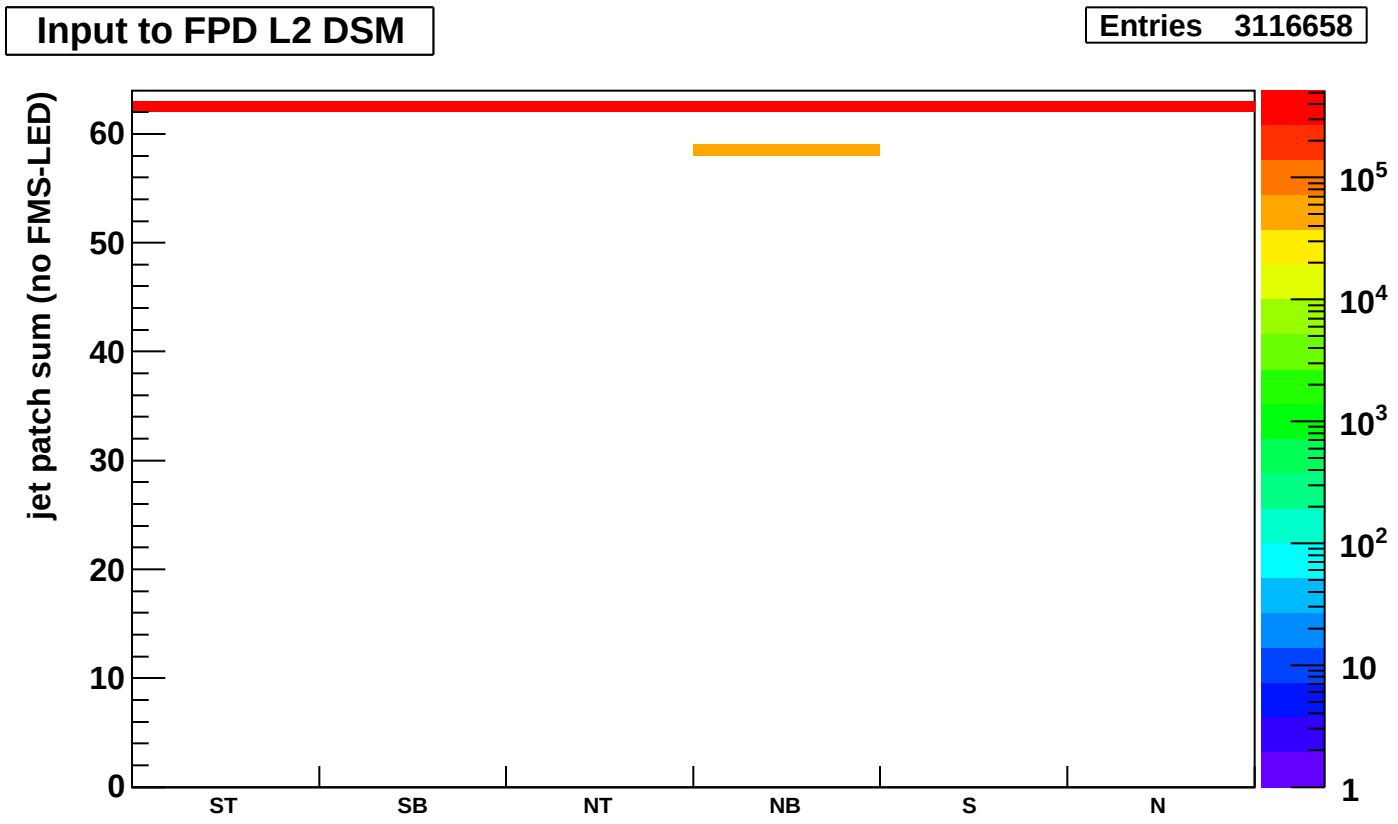

Input to FPD L2 DSM
Entries 6233316
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

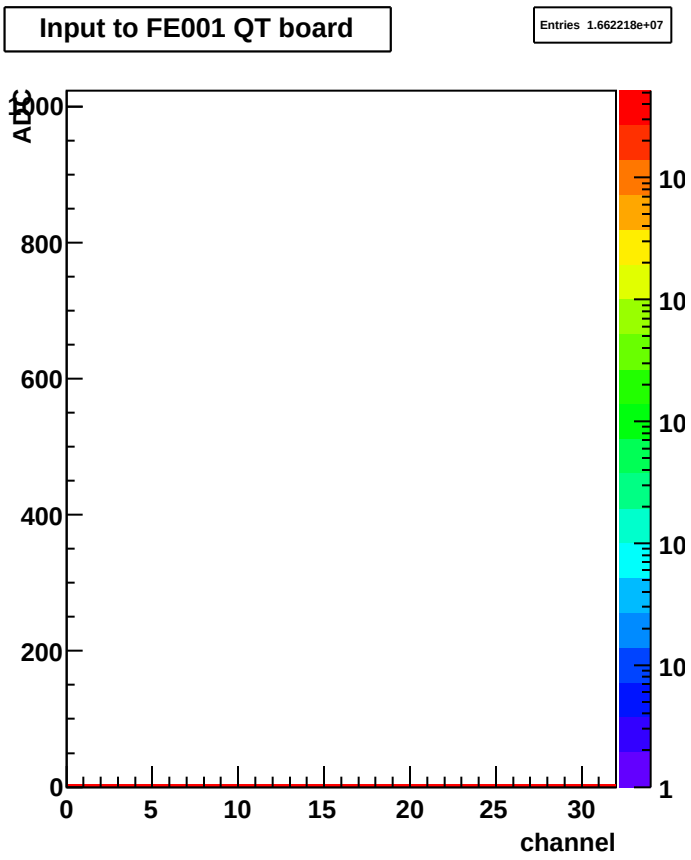

Input to FPD L2 DSM
Entries 1558329
CL bits
519443
519443
519443
SMALL
LARGE-S
LARGE-N

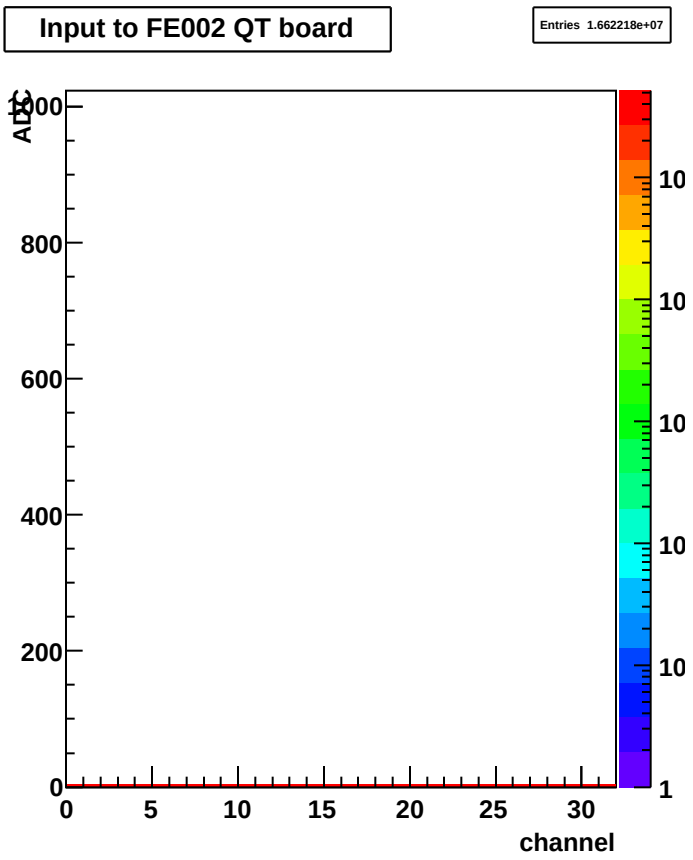

Input to FPD L2 DSM
Entries 1558329
CL bits - simulated
519443
519443
519443
SMALL
LARGE-S
LARGE-N

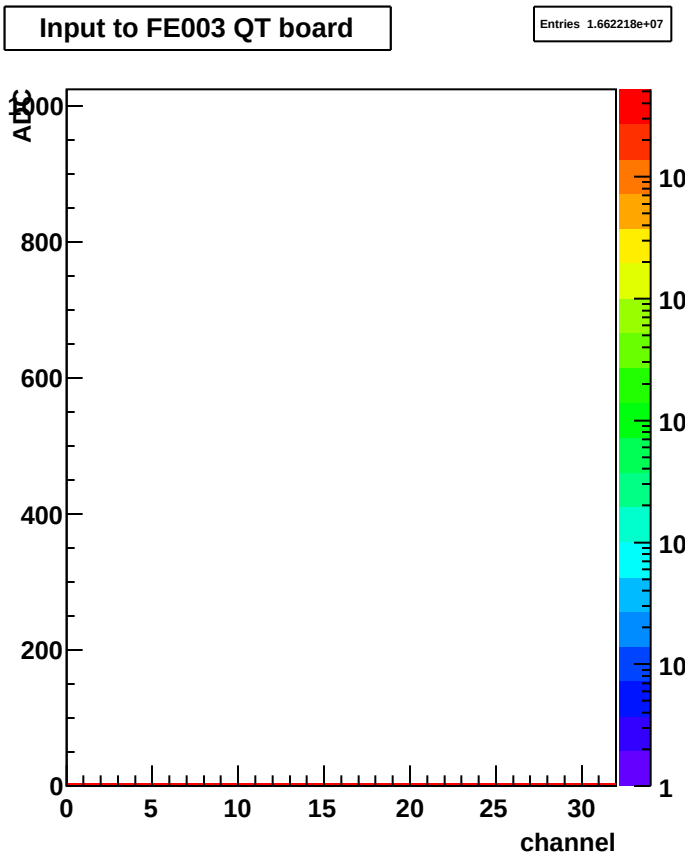

Input to FPD L2 DSM
Entries 1558329
HT bits
519443
519443
519443
SMALL
LARGE-S
LARGE-N

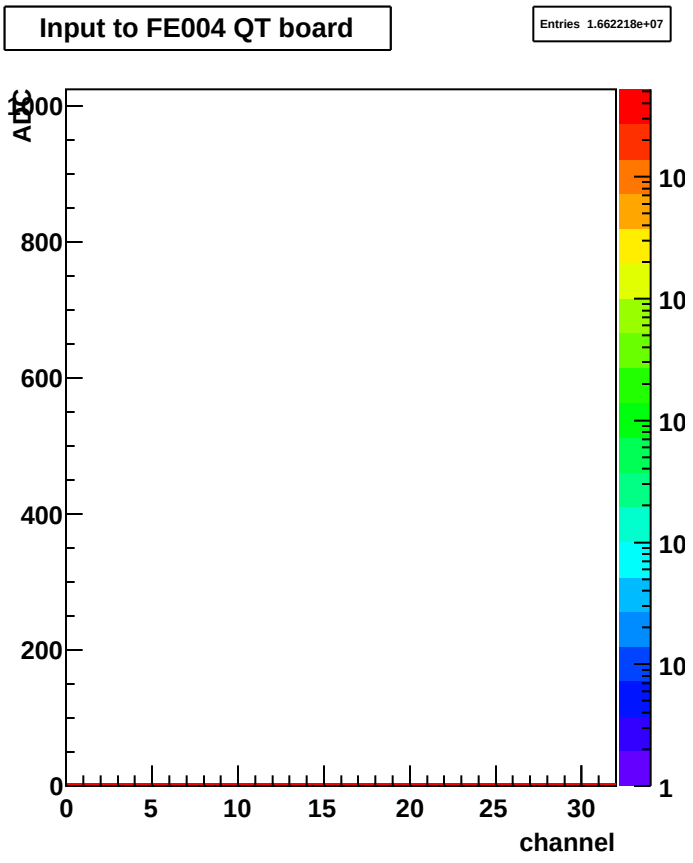

Input to FPD L2 DSM
Entries 1558329
HT bits - simulated
519443
519443
519443
SMALL
LARGE-S
LARGE-N

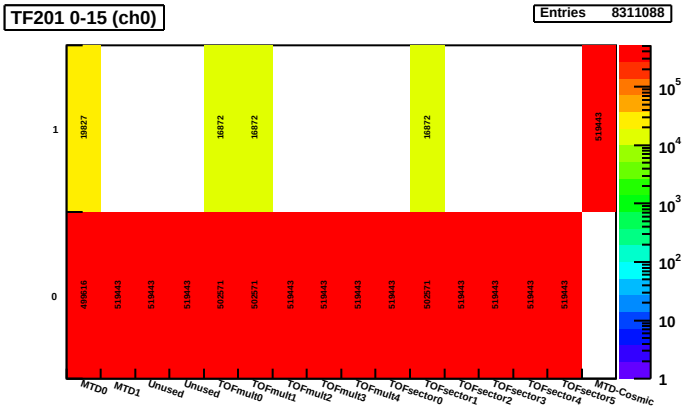

Input to FPD L2 DSM
Entries 3116658
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

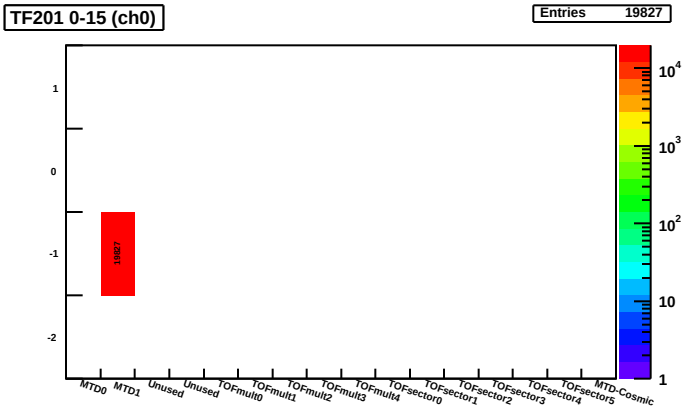

Input to FE001 QT board
Entries 1.662218e+07
ADC
channel

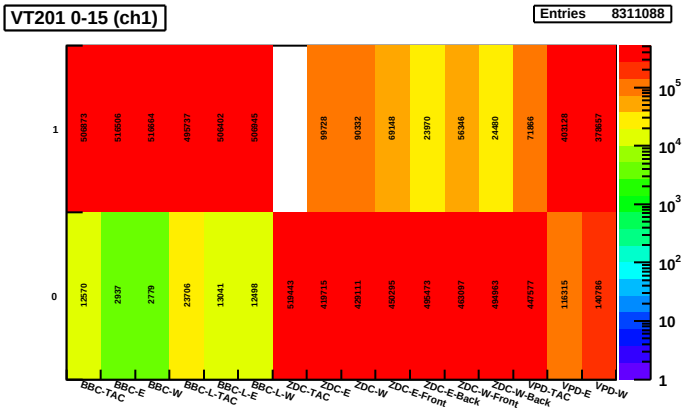

Input to FE002 QT board
Entries 1.662218e+07
ADC
channel

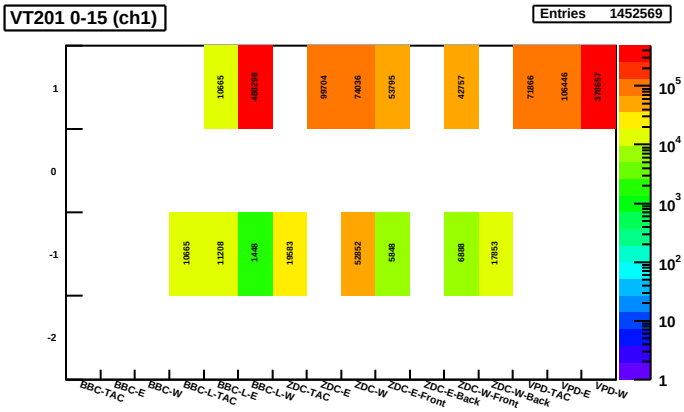

Input to FE003 QT board
Entries 1.662218e+07
ADC
channel

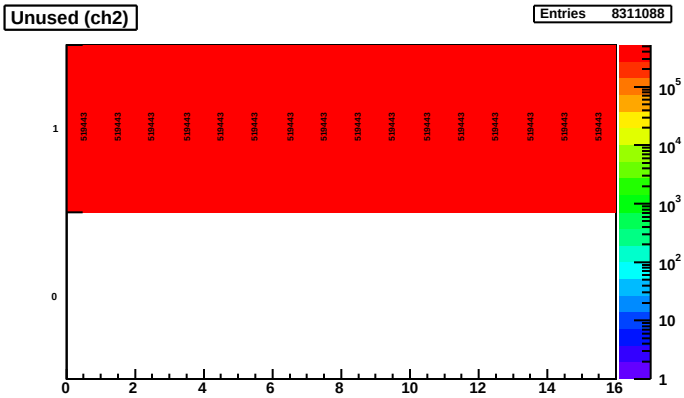

Input to FE004 QT board
Entries 1.662218e+07
ADC
channel


TF201 0-15 (ch0)
Entries 8311088
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 19827
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 8311088
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 1452569
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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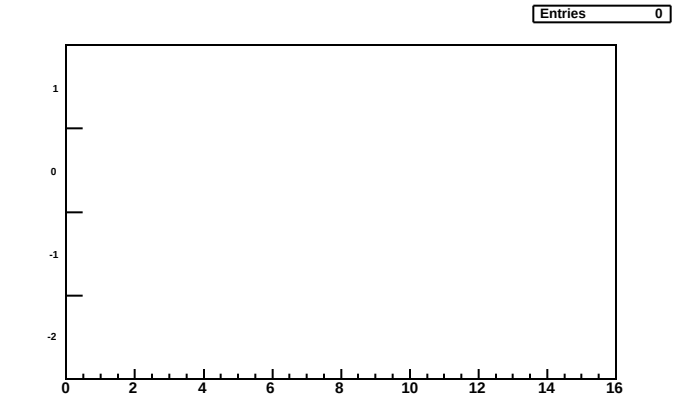
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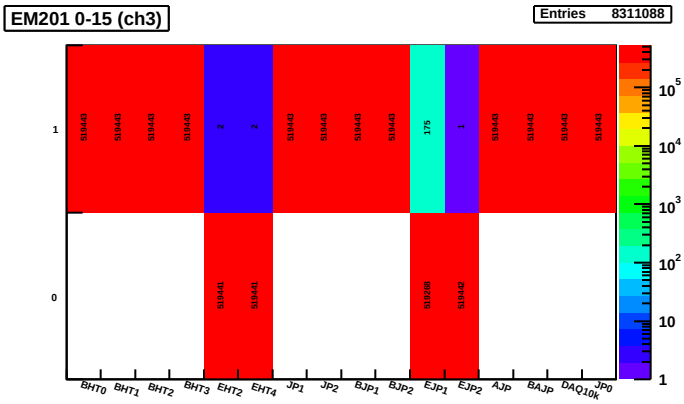
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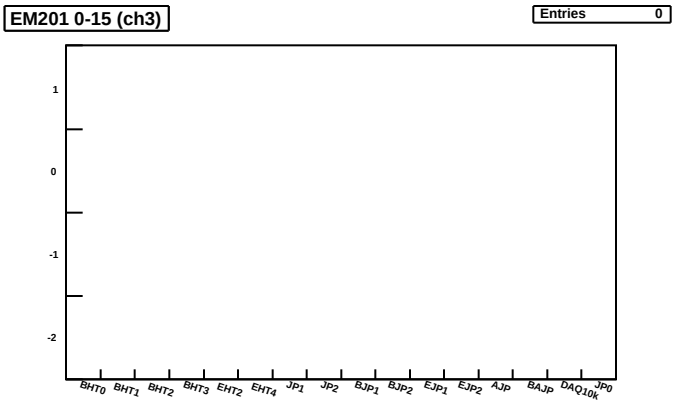
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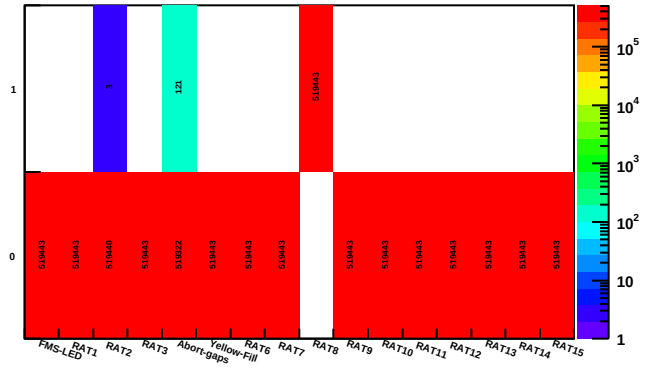
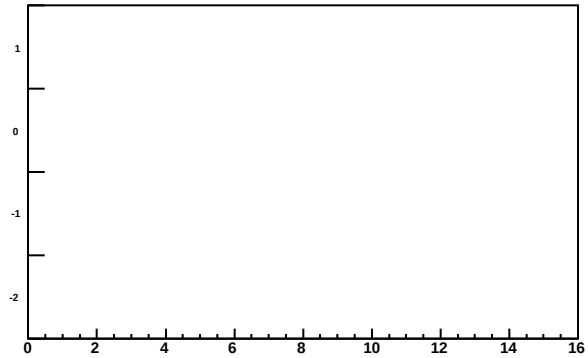
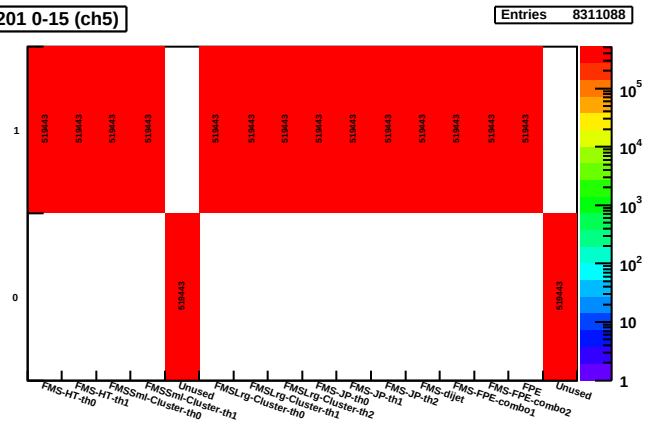
RAT board (ch4)





FP201 0-15 (ch5)



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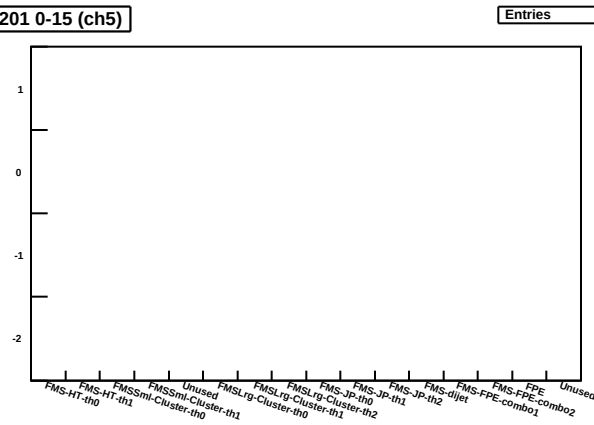
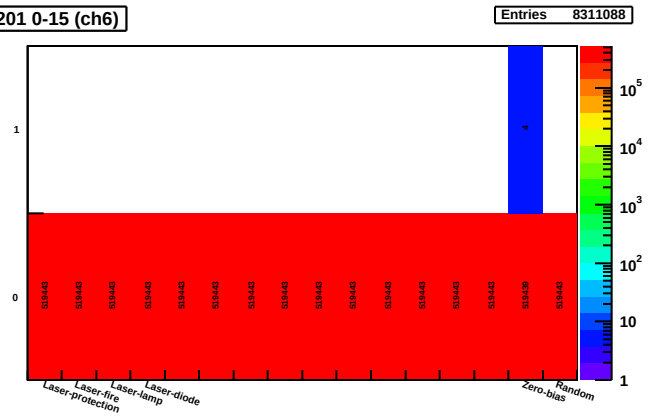
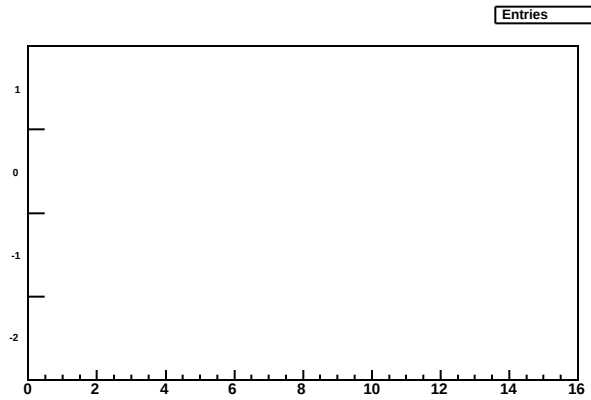
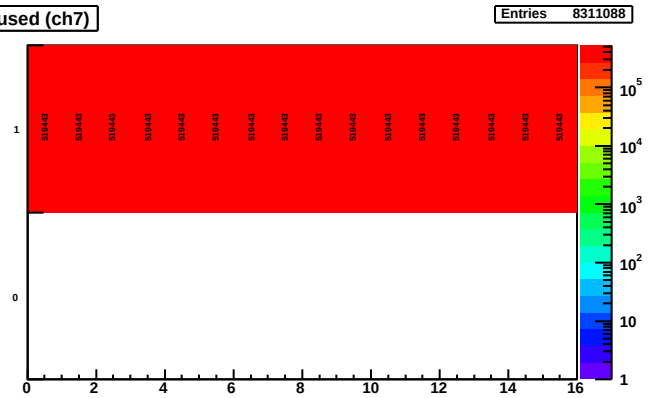
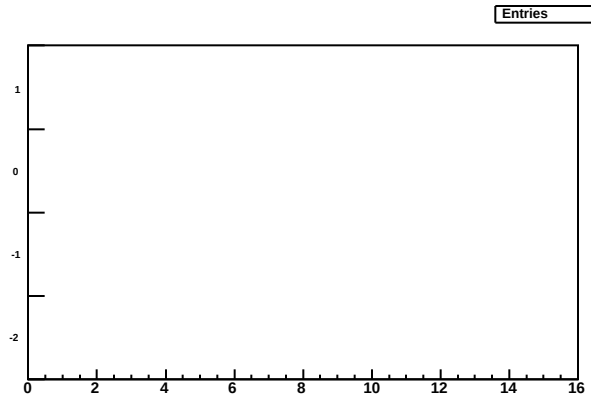


ST201 0-15 (ch6)





Unused (ch7)