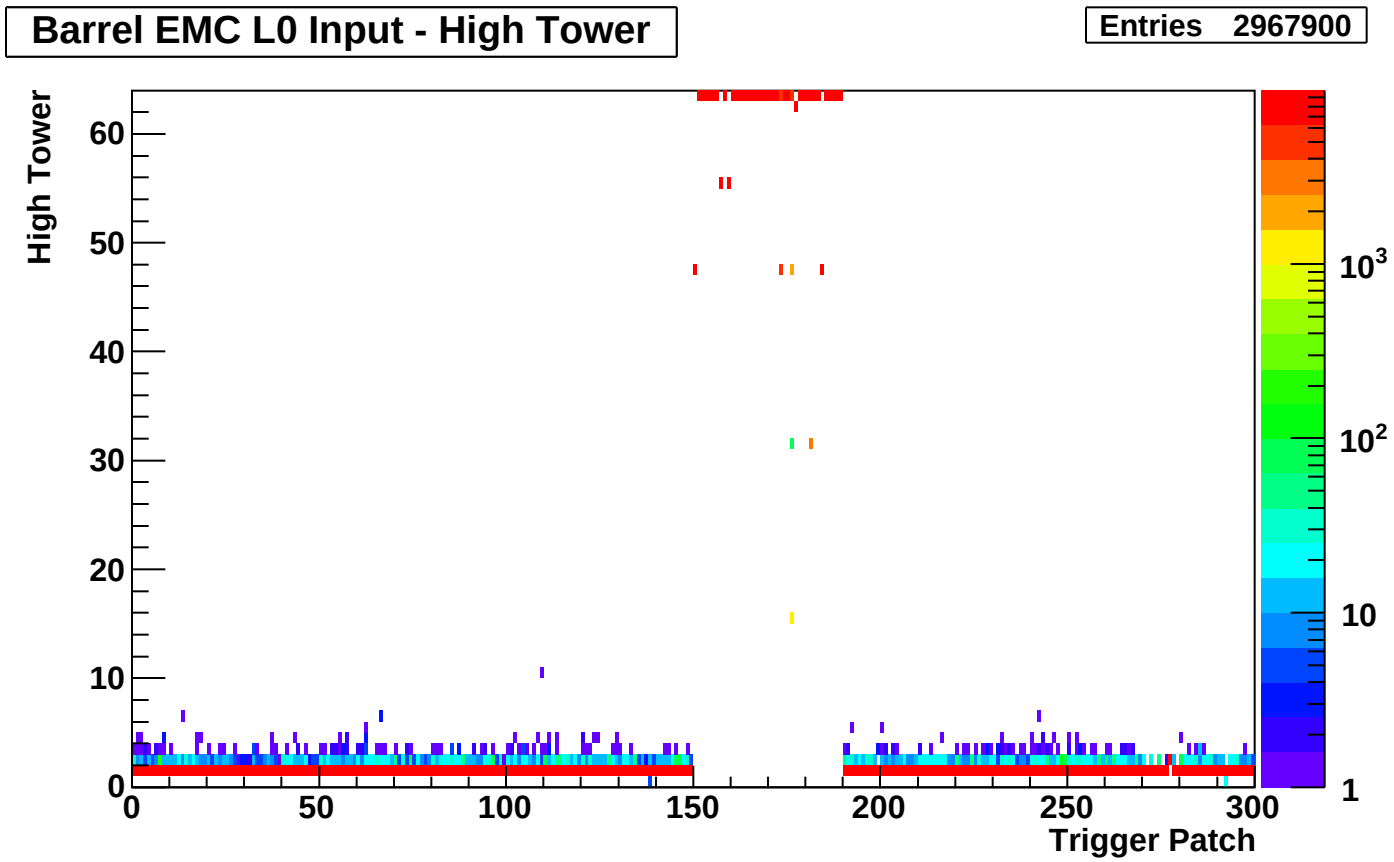
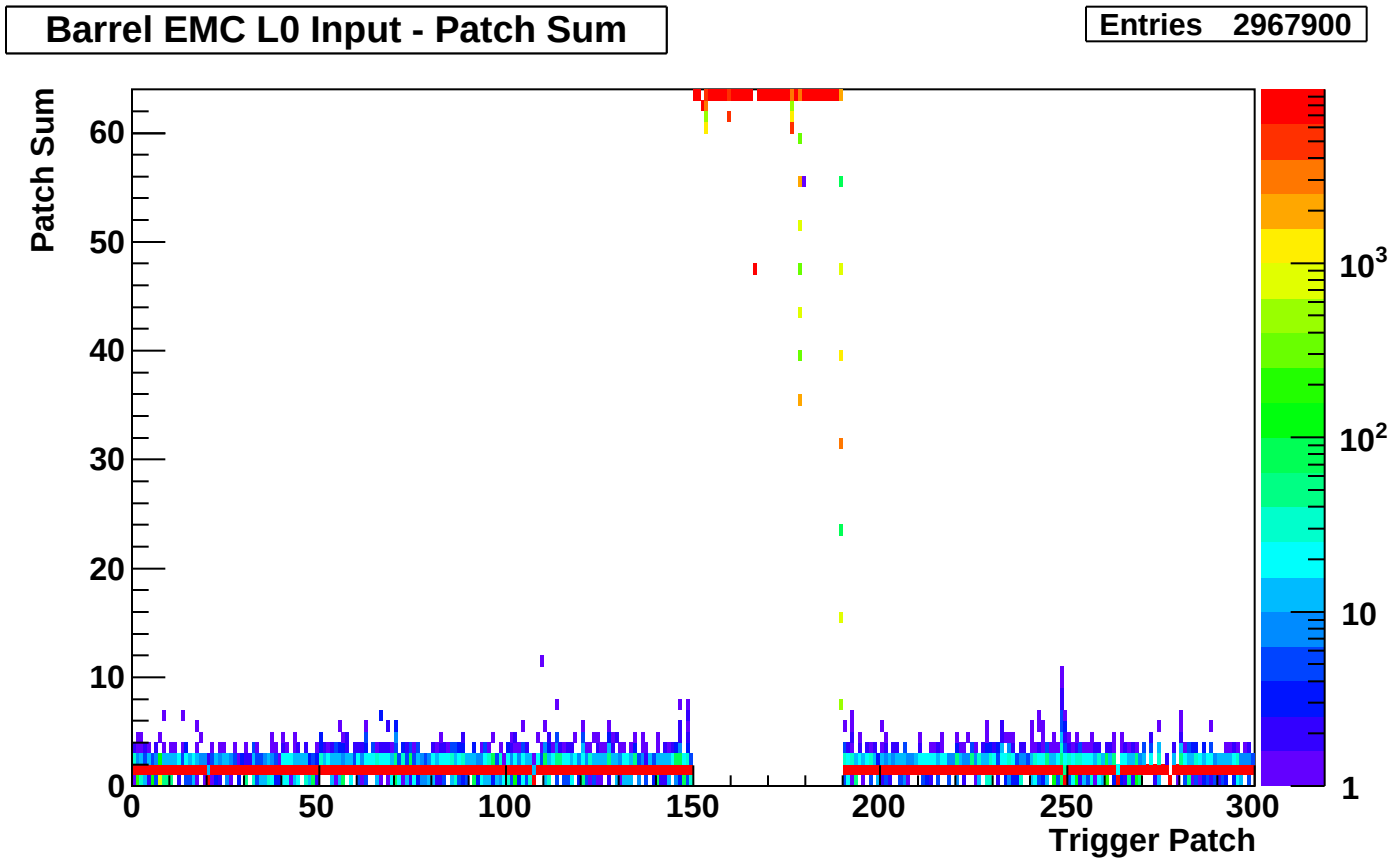
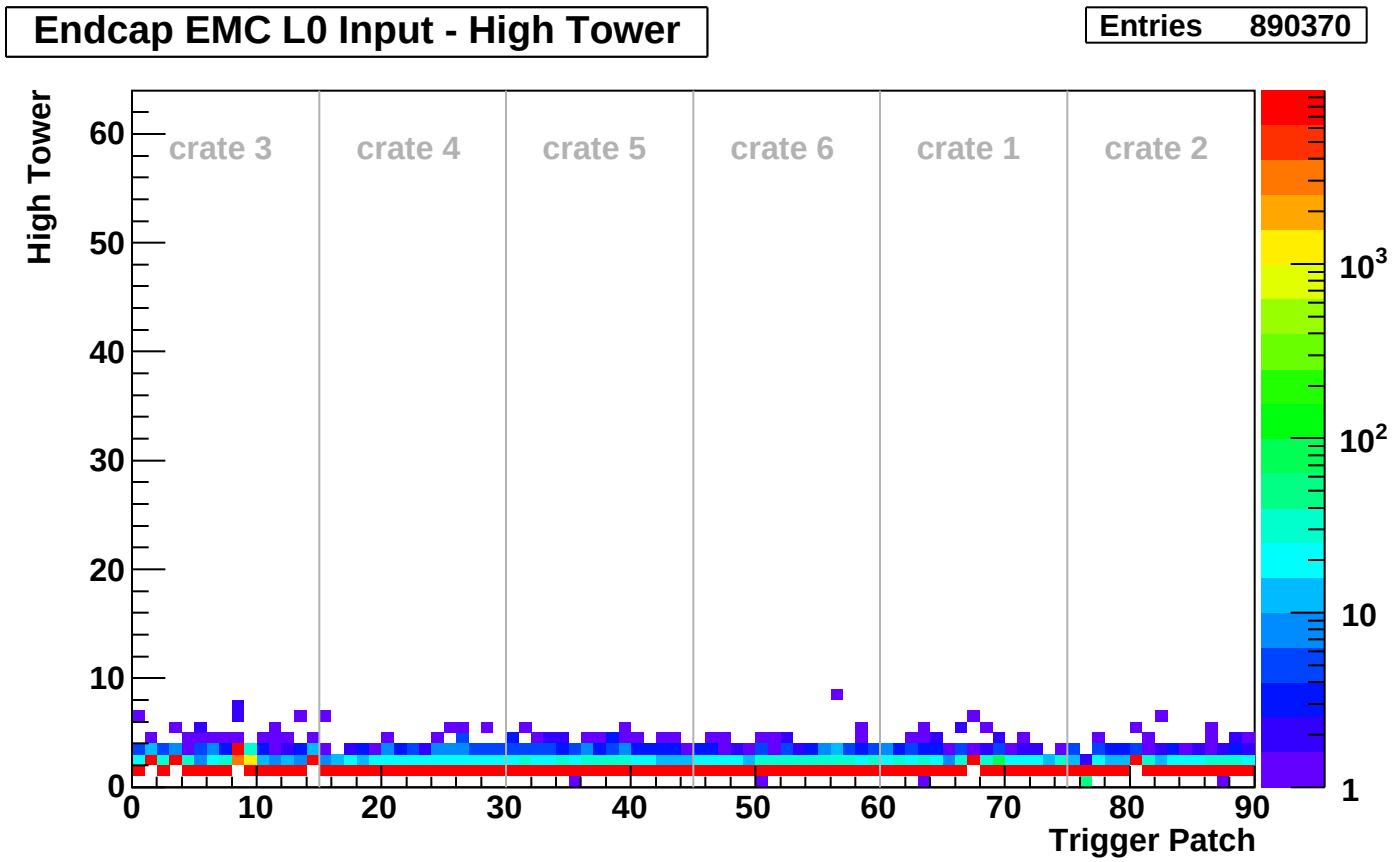
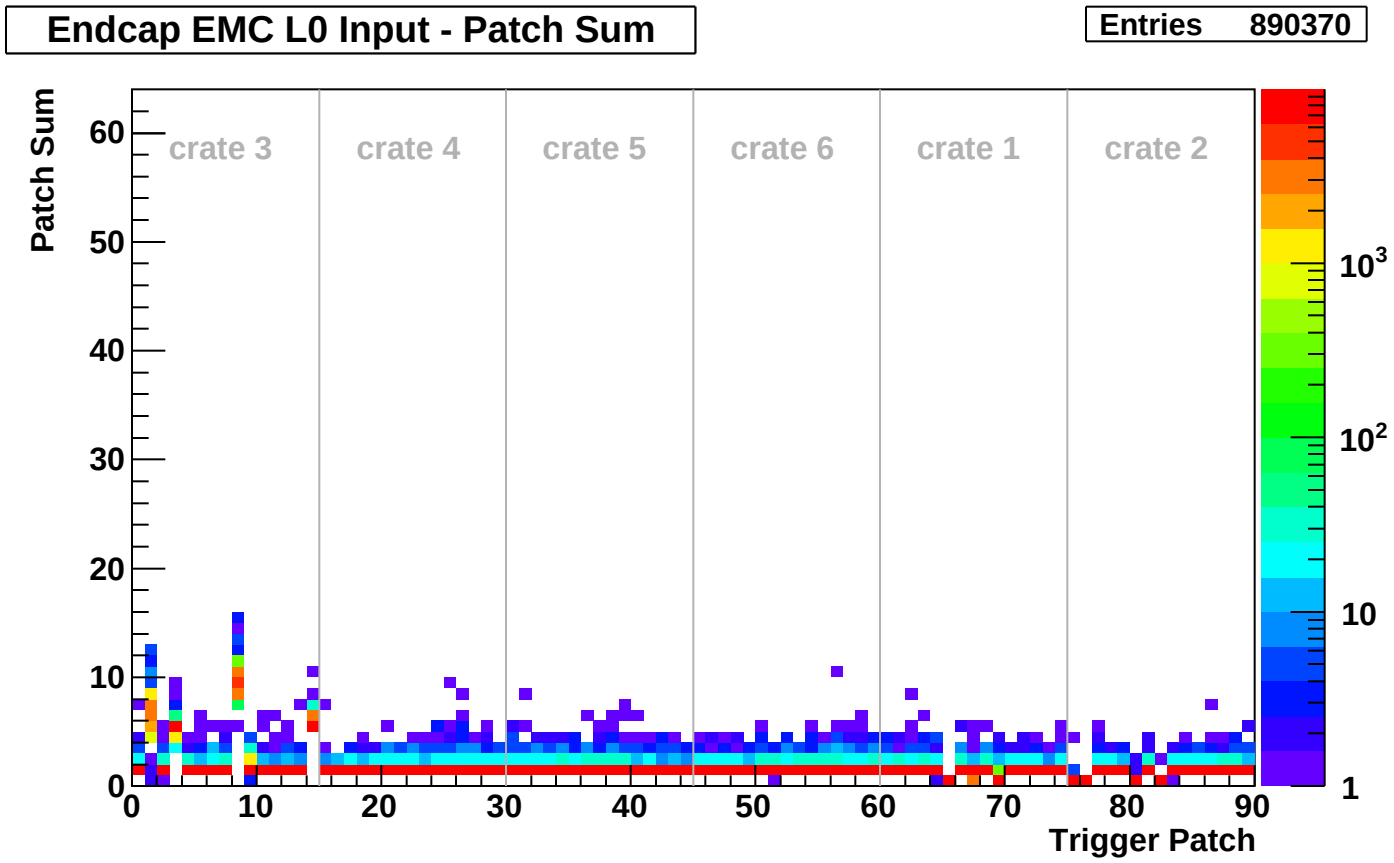
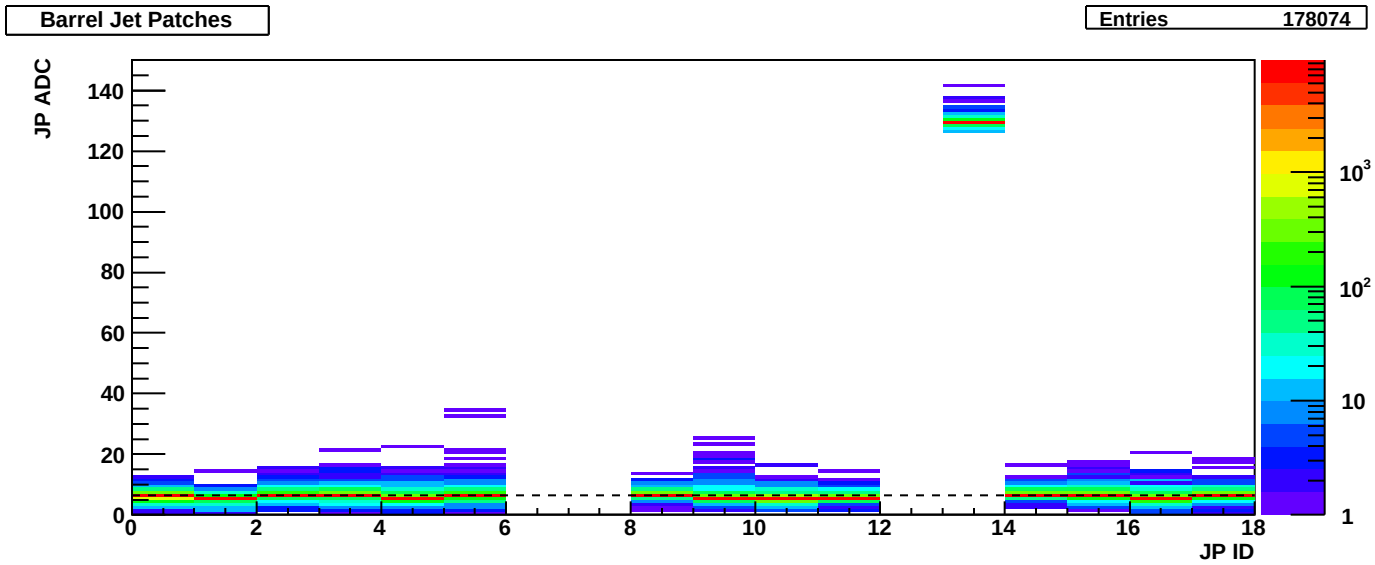
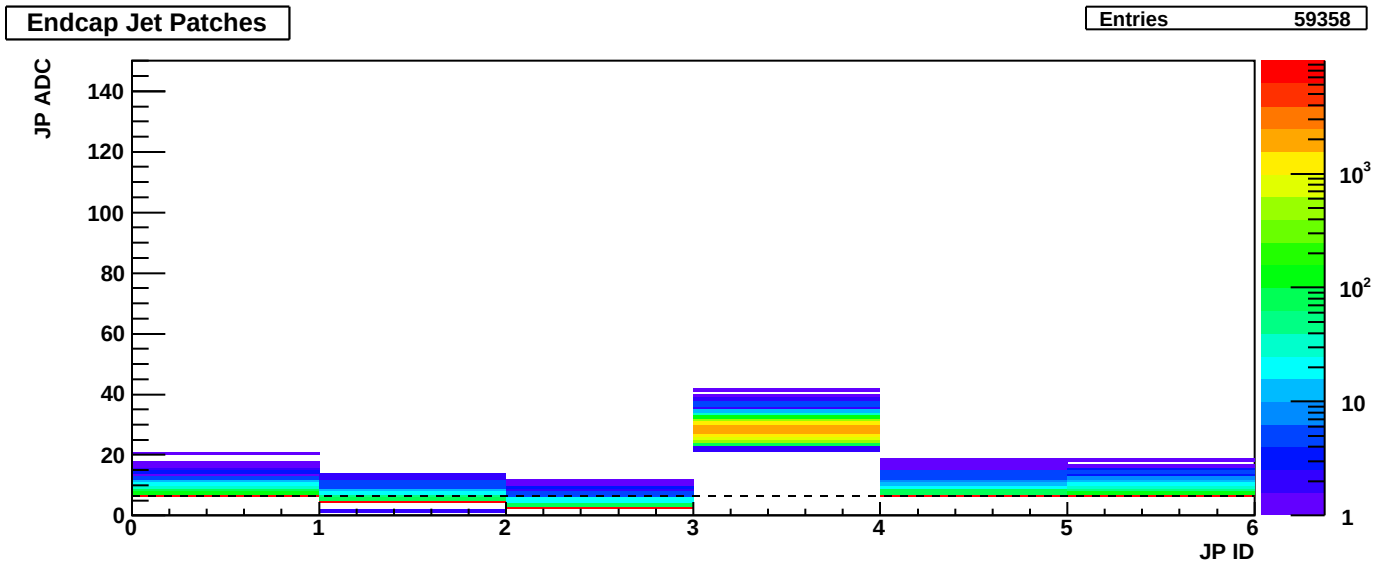

Barrel EMC L0 Input - High Tower
Entries 2967900
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

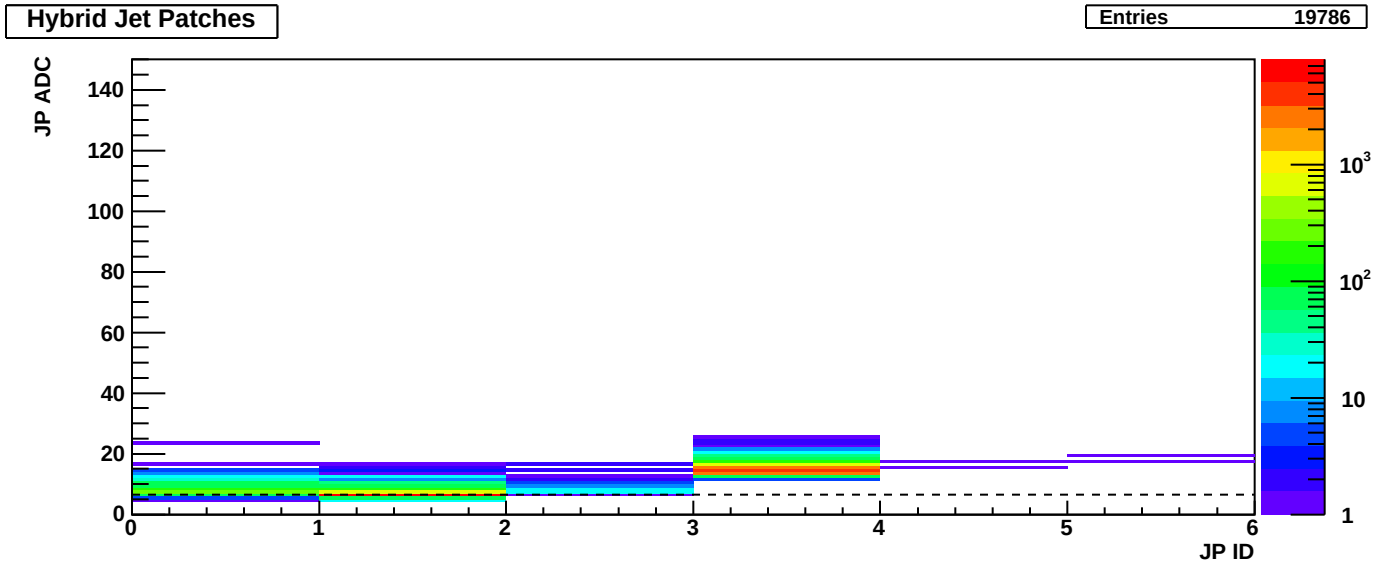

Barrel EMC L0 Input - Patch Sum
Entries 2967900
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

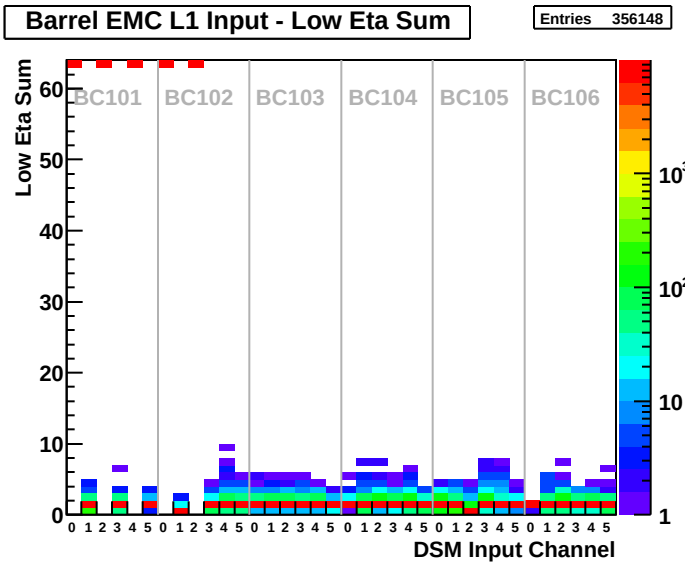

Endcap EMC L0 Input - High Tower
Entries 890370
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

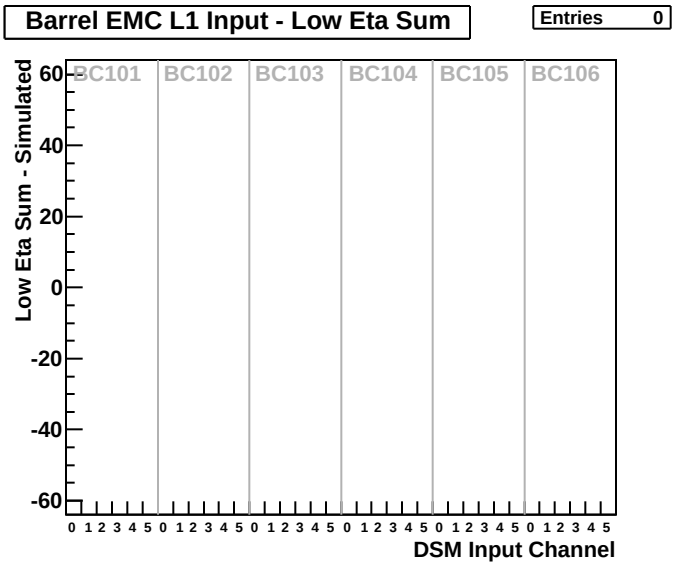

Endcap EMC L0 Input - Patch Sum
Entries 890370
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

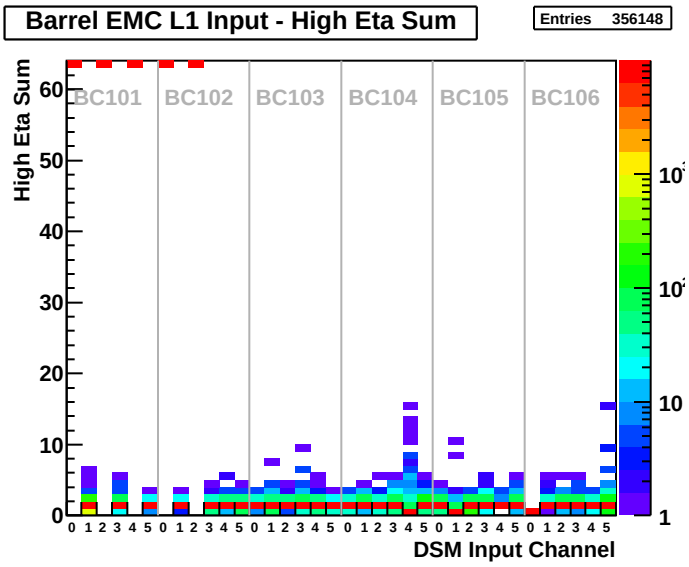

Barrel Jet Patches
Entries 178074
JP ADC
JP ID

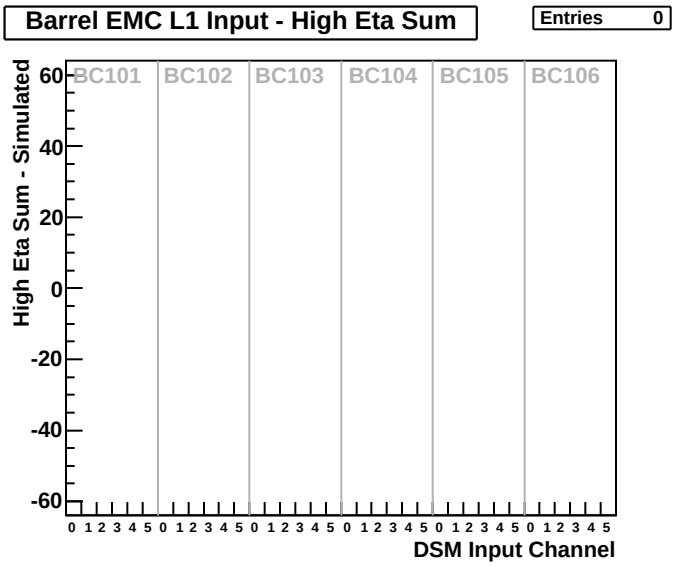

Endcap Jet Patches
Entries 59358
JP ADC
JP ID

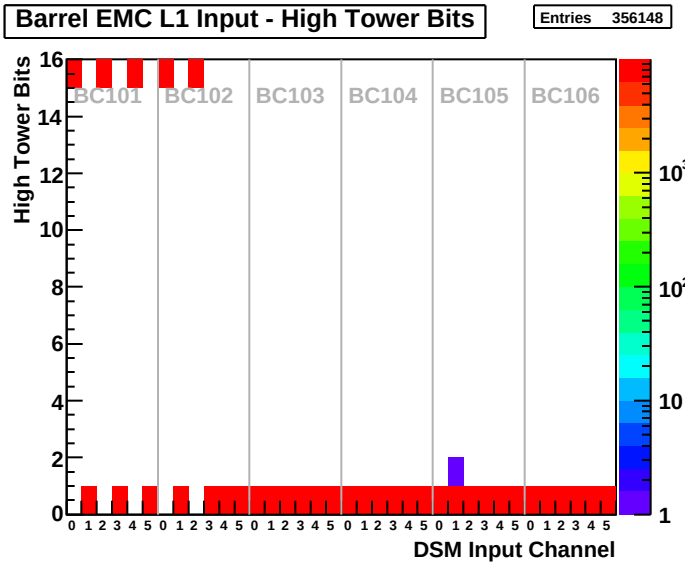

Hybrid Jet Patches
Entries 19786
JP ADC
JP ID

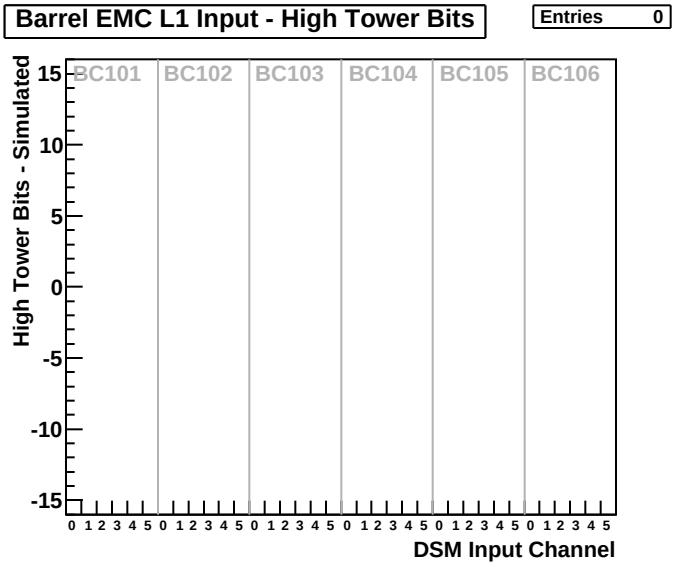

Barrel EMC L1 Input - Low Eta Sum
Entries 356148
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

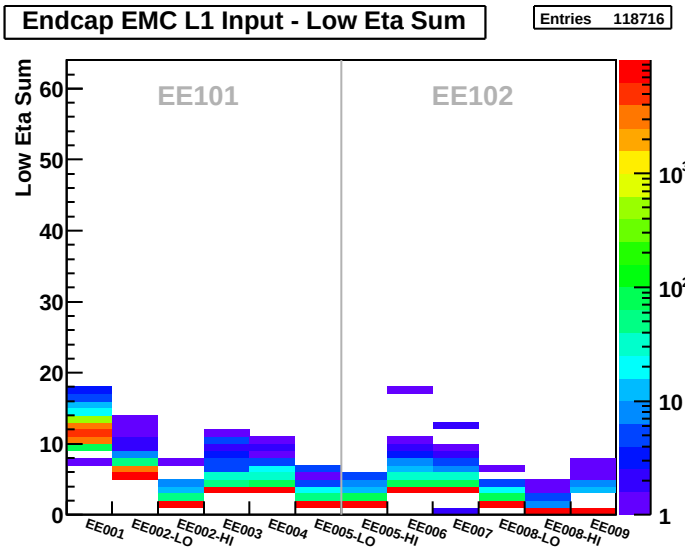

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

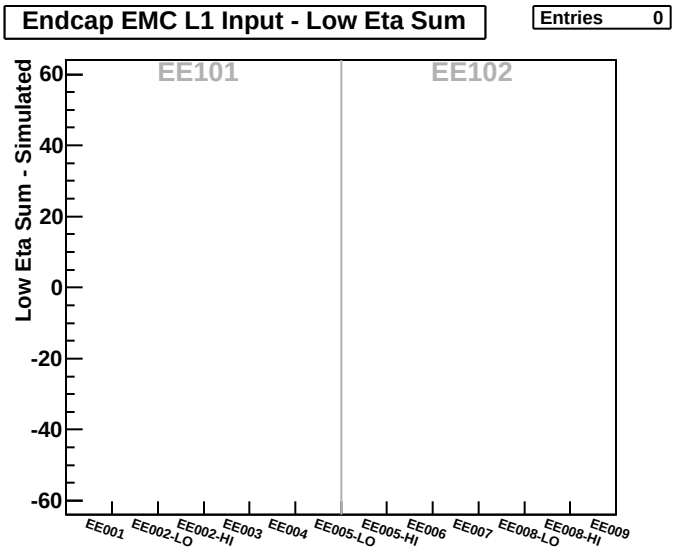

Barrel EMC L1 Input - High Eta Sum
Entries 356148
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

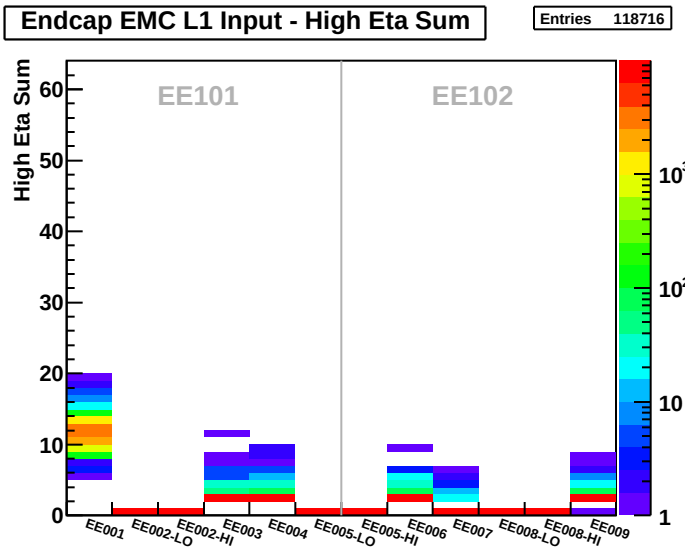

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

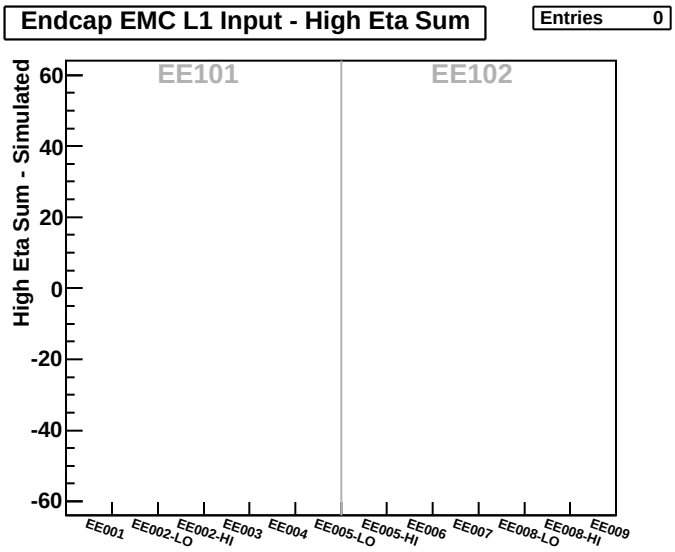

Barrel EMC L1 Input - High Tower Bits
Entries 356148
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

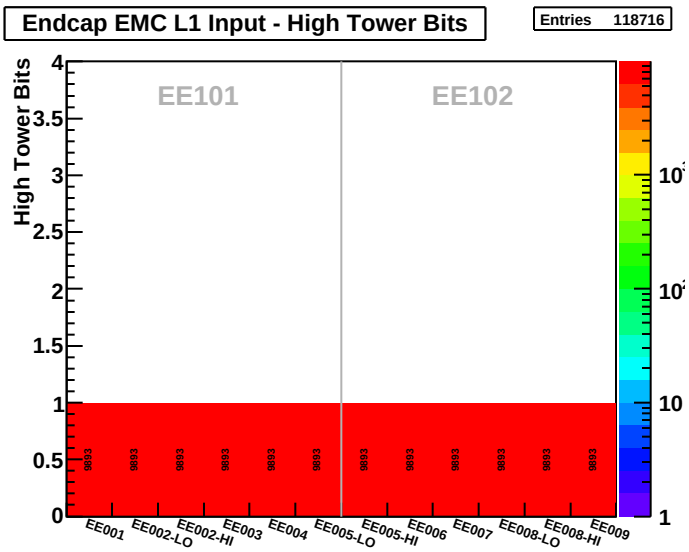

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

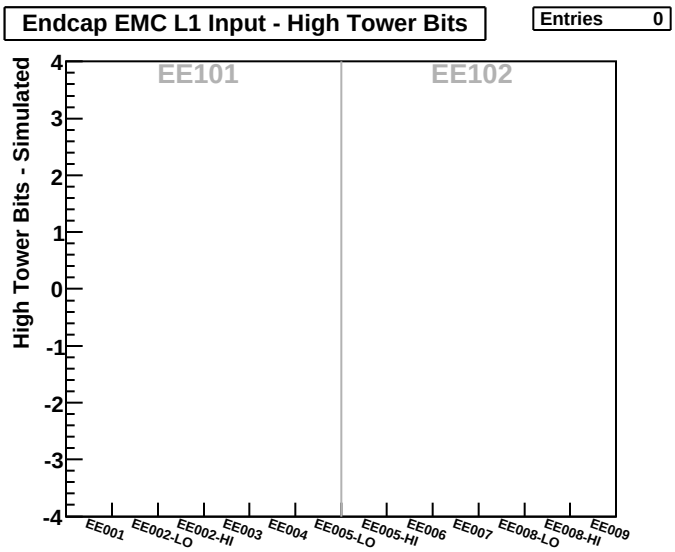

Endcap EMC L1 Input - Low Eta Sum
Entries 118716
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

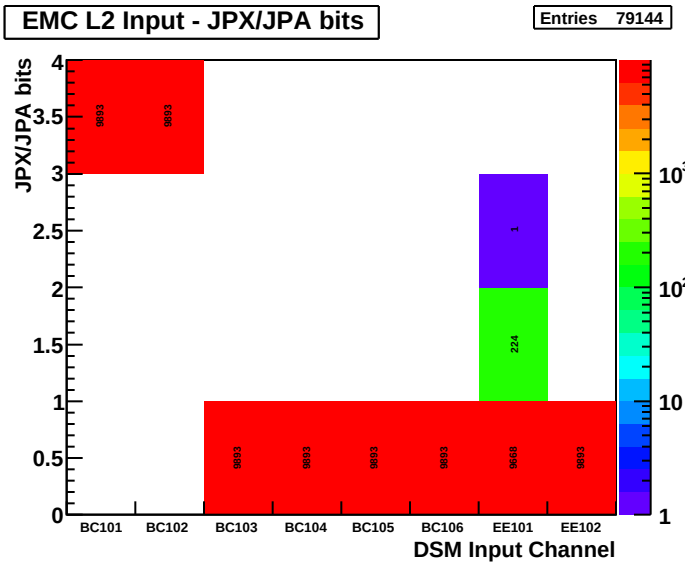

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

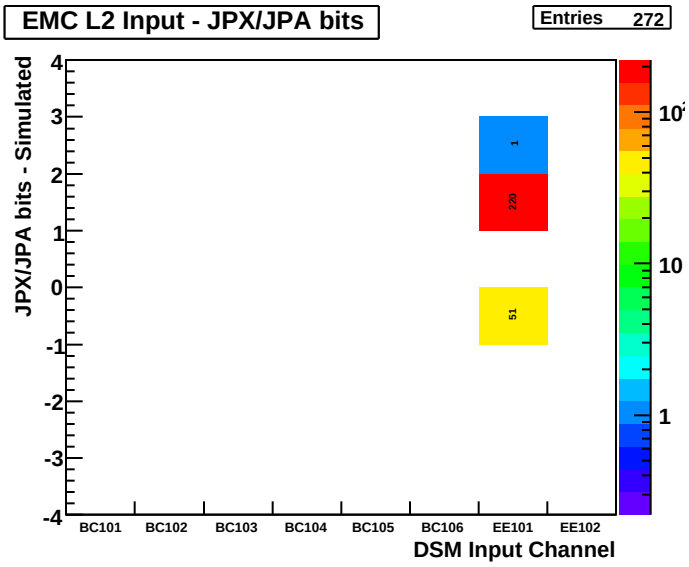

Endcap EMC L1 Input - High Eta Sum
Entries 118716
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

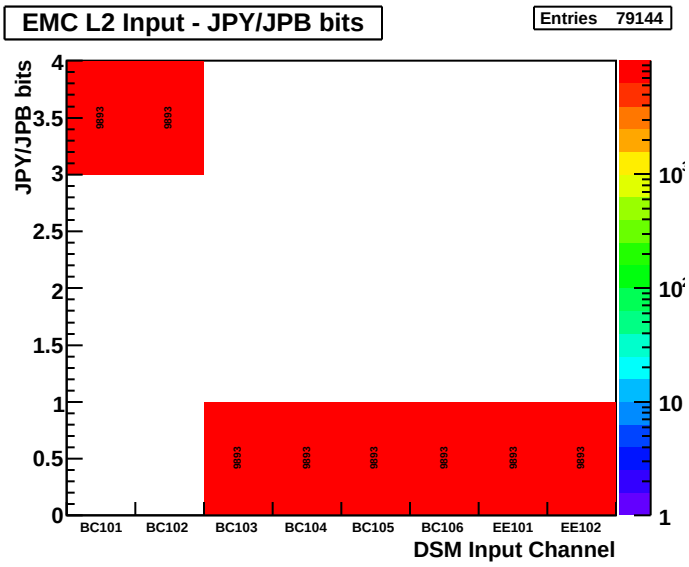

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

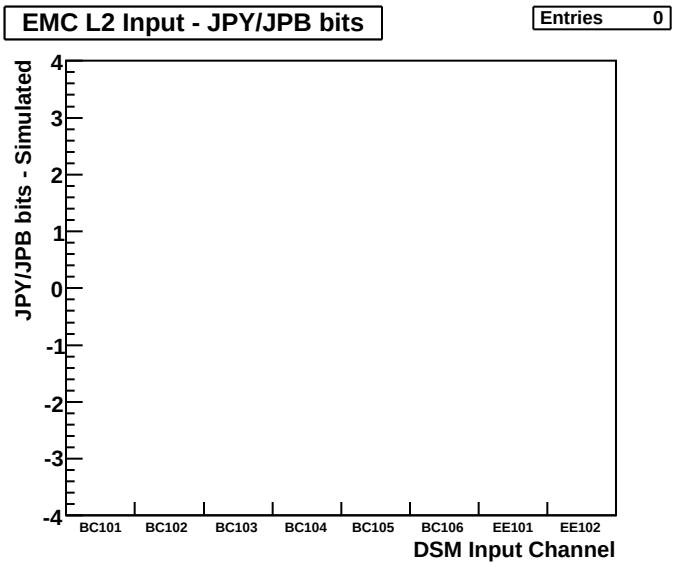

Endcap EMC L1 Input - High Tower Bits
Entries 118716
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

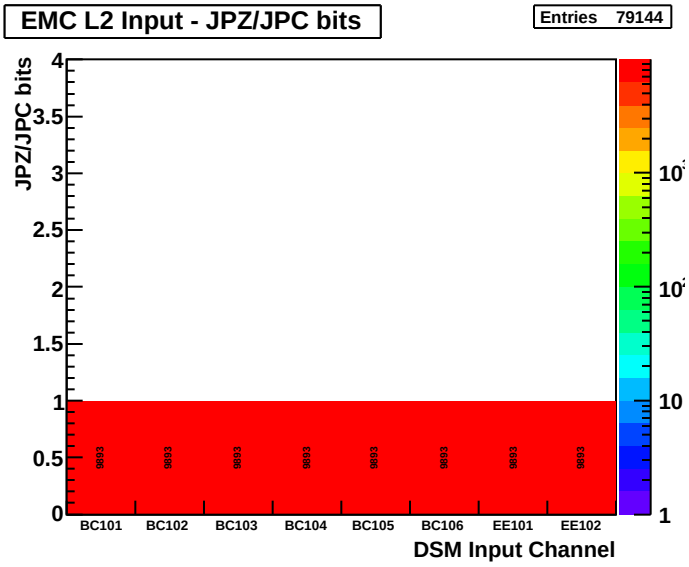

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

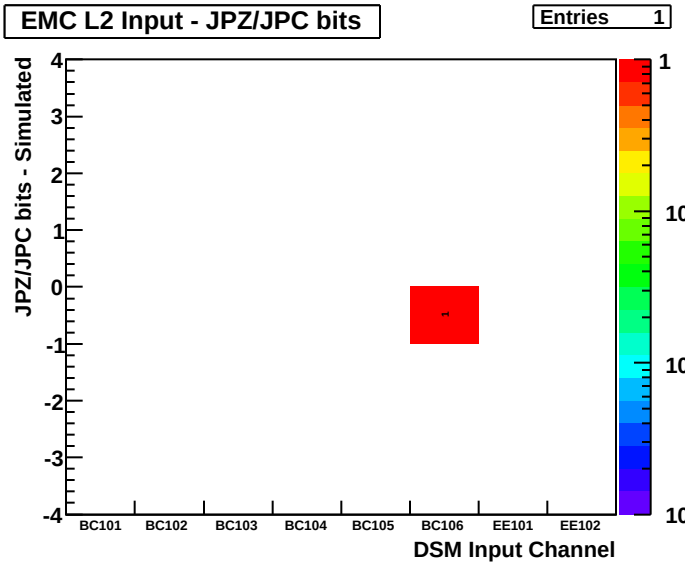

EMC L2 Input - JPX/JPA bits
Entries 79144
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

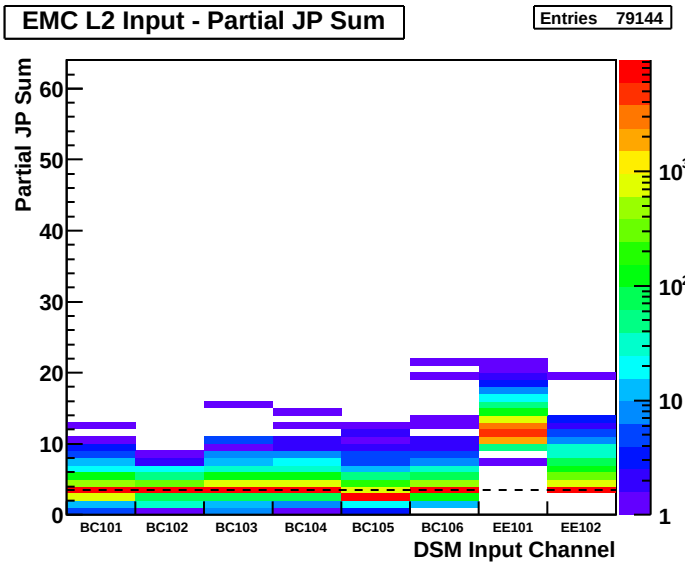

EMC L2 Input - JPX/JPA bits
Entries 272
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

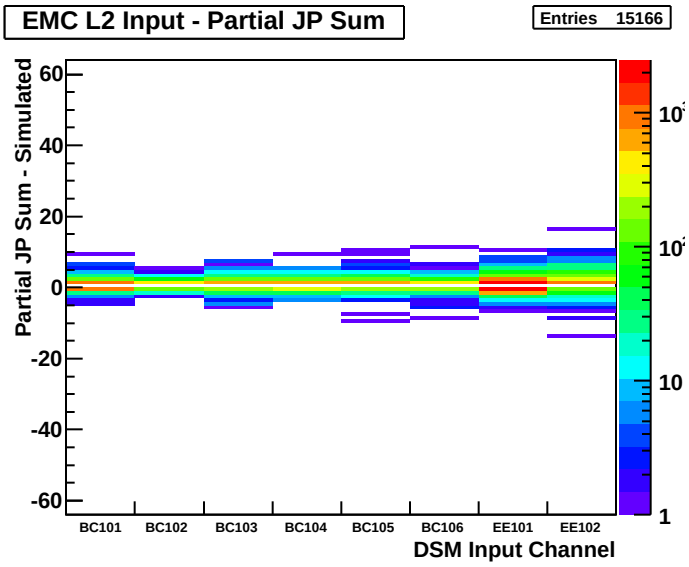

EMC L2 Input - JPY/JPB bits
Entries 79144
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

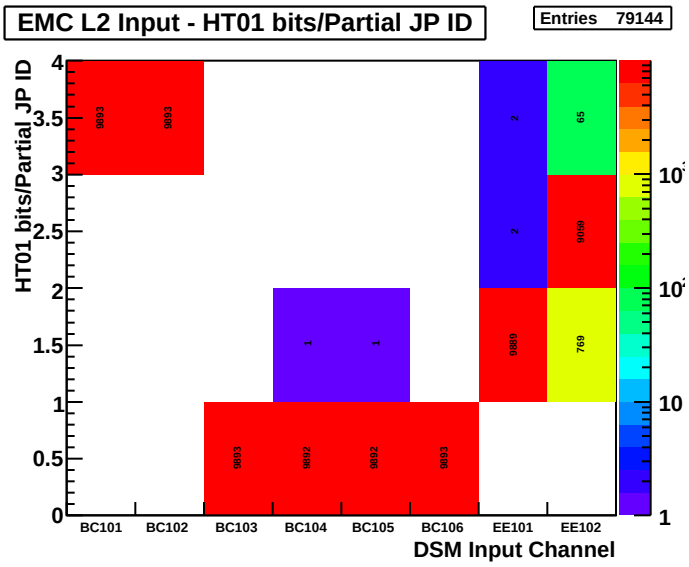

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

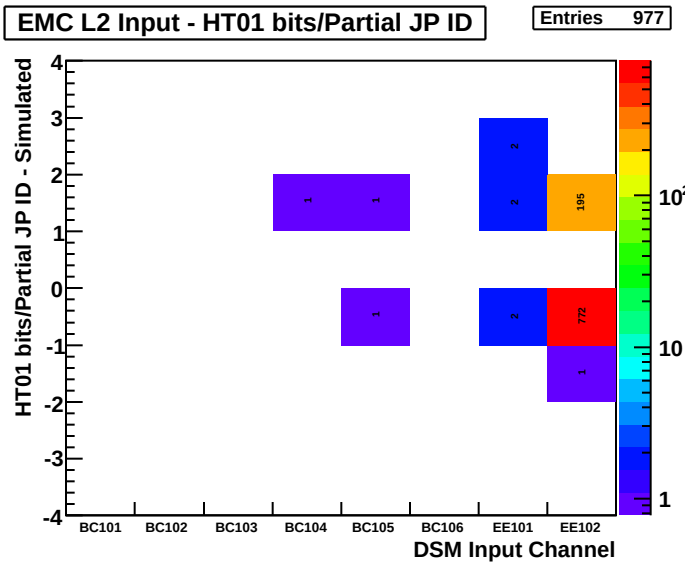

EMC L2 Input - JPZ/JPC bits
Entries 79144
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

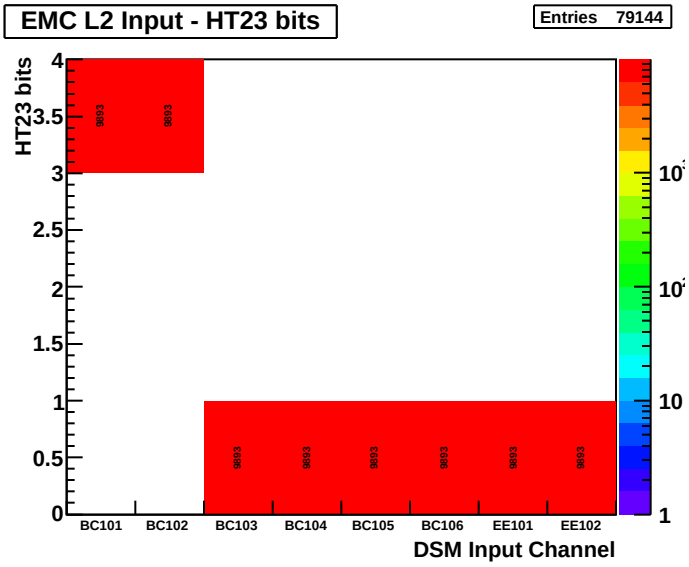

EMC L2 Input - JPZ/JPC bits
Entries 1
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

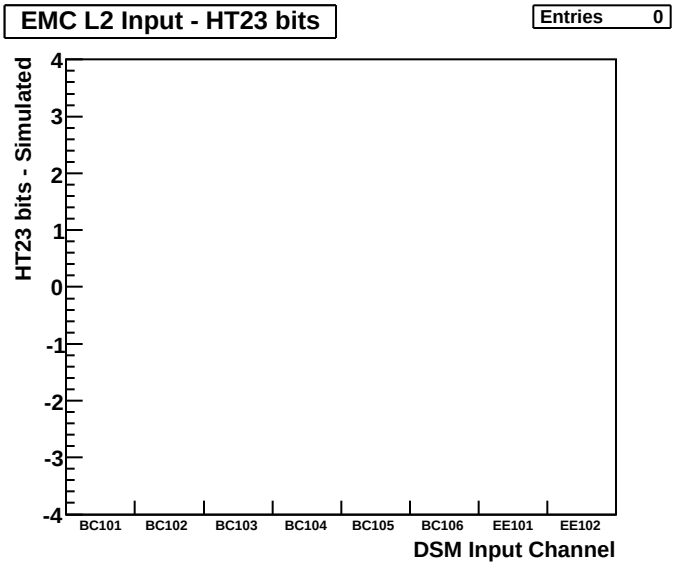

EMC L2 Input - Partial JP Sum
Entries 79144
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

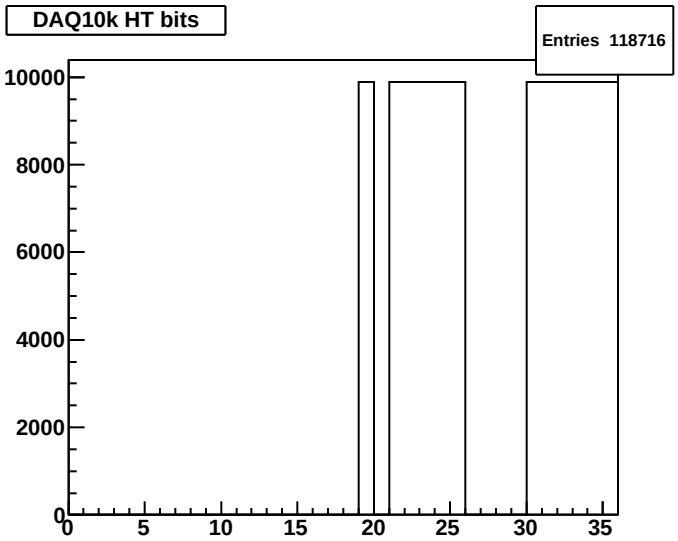

EMC L2 Input - Partial JP Sum
Entries 15166
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

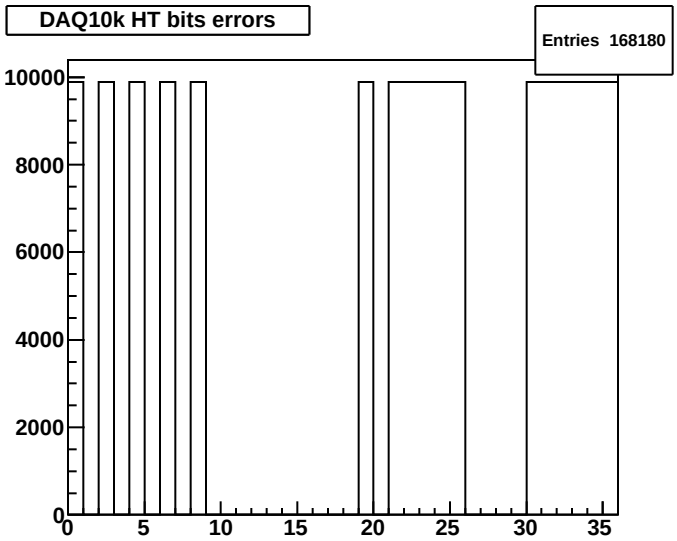

EMC L2 Input - HT01 bits/Partial JP ID
Entries 79144
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

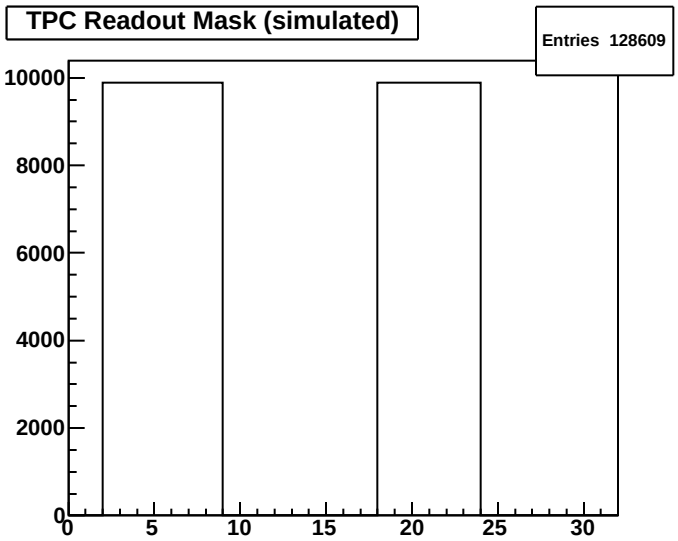

EMC L2 Input - HT01 bits/Partial JP ID
Entries 977
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

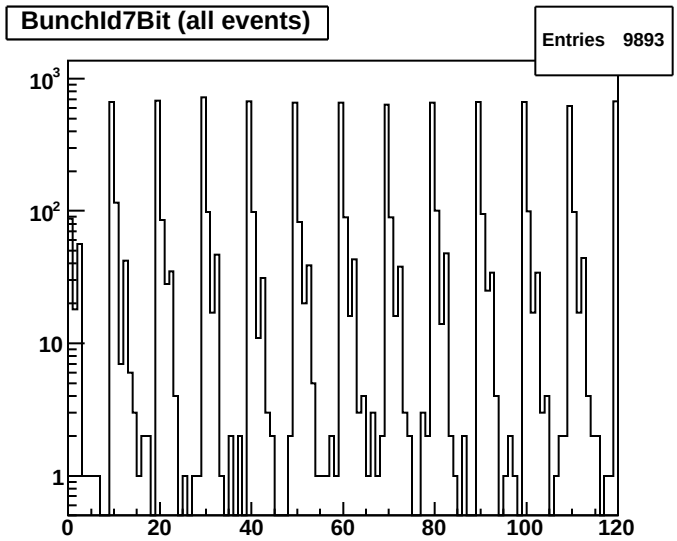

EMC L2 Input - HT23 bits
Entries 79144
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

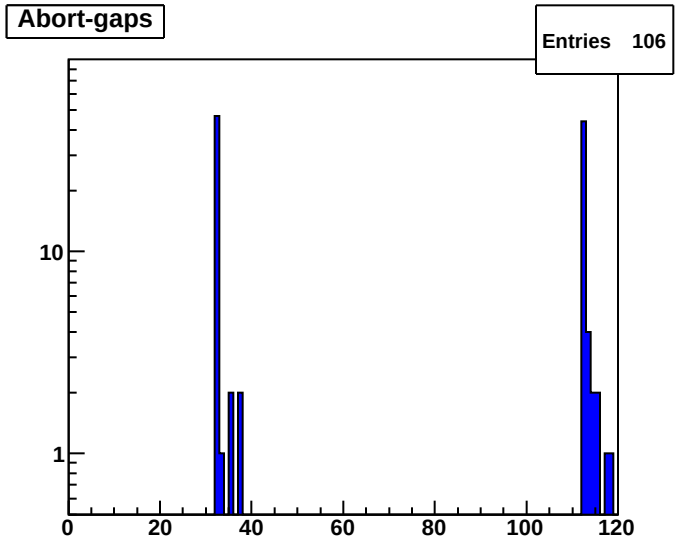

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

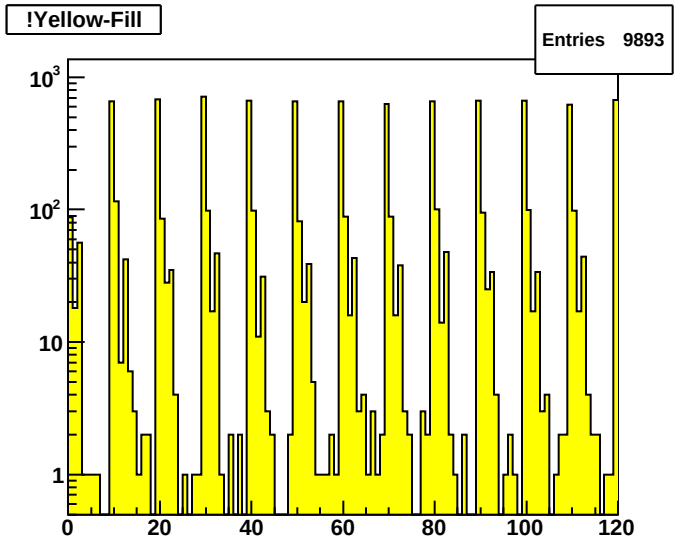

DAQ10k HT bits
Entries 118716
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

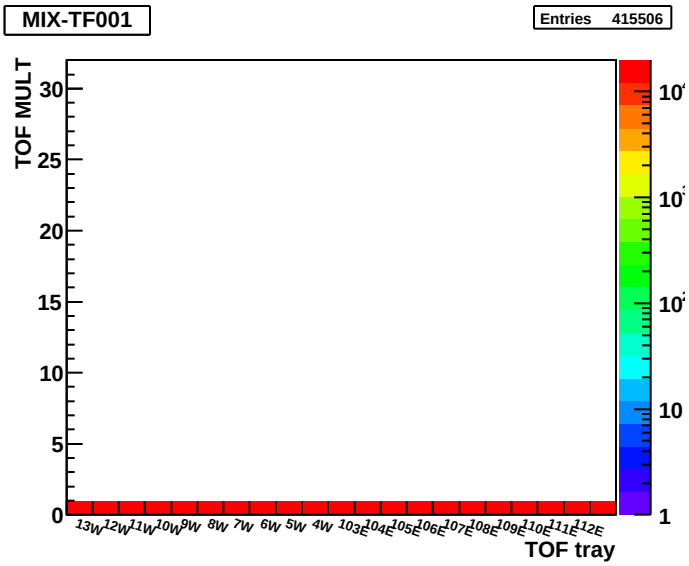

DAQ10k HT bits errors
Entries 168180
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

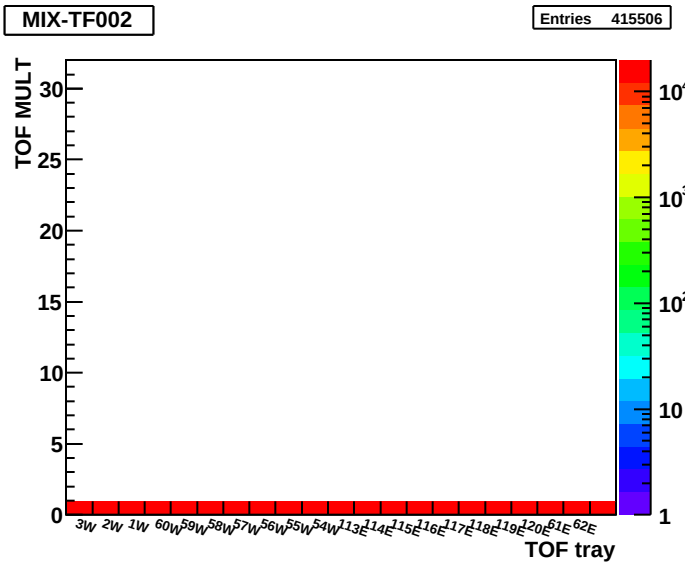

TPC Readout Mask (simulated)
Entries 128609
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

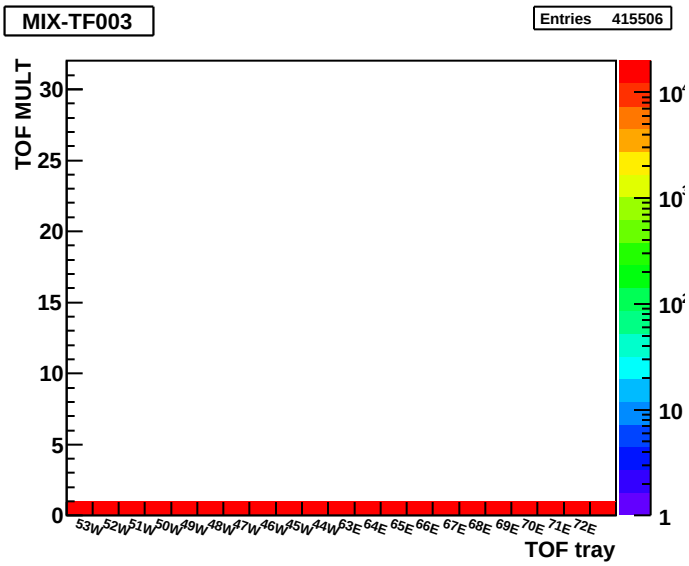

BunchId7Bit (all events)
Entries 9893
10^3
10^2
10
1
0 20 40 60 80 100 120

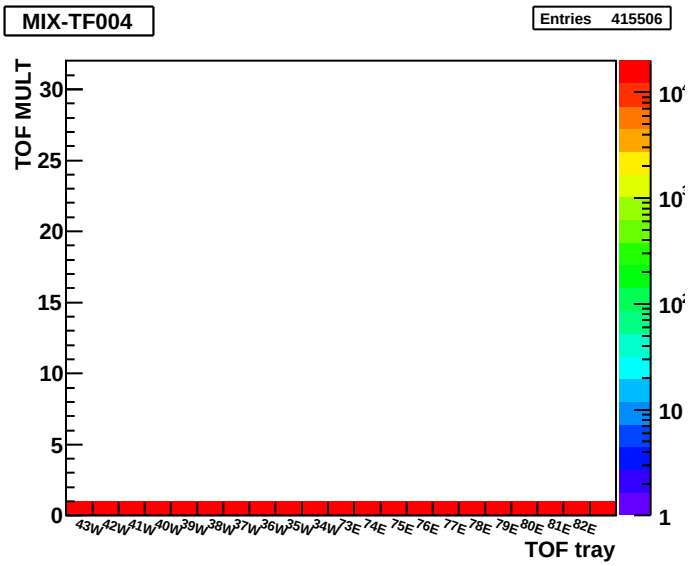

Abort-gaps
Entries 106
10
1
0 20 40 60 80 100 120

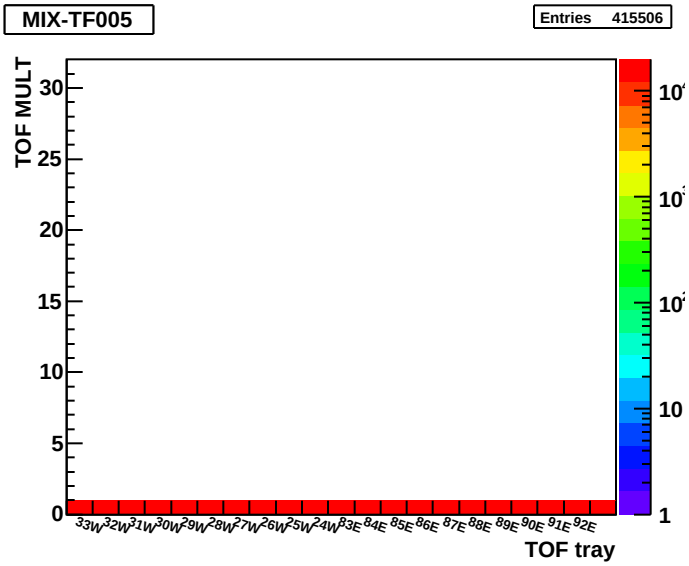

!Yellow-Fill
Entries 9893
10^3
10^2
10
1
0 20 40 60 80 100 120

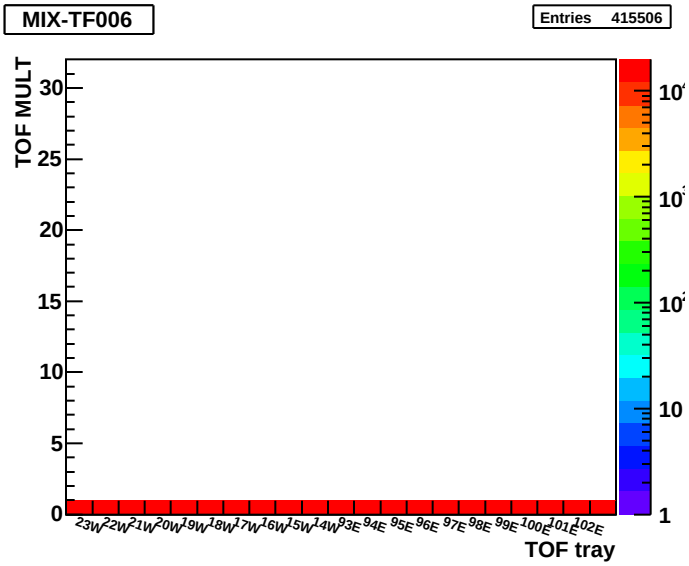

MIX-TF001
Entries 415506
TOF MULT
TOF tray

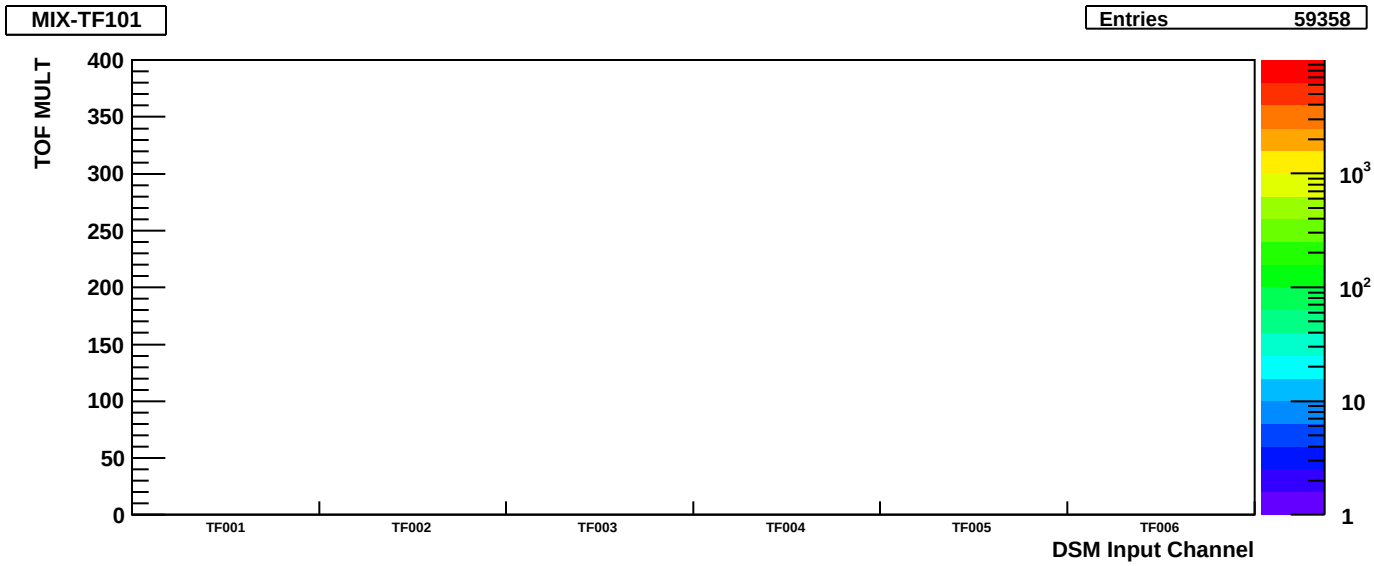

MIX-TF002
Entries 415506
TOF MULT
TOF tray

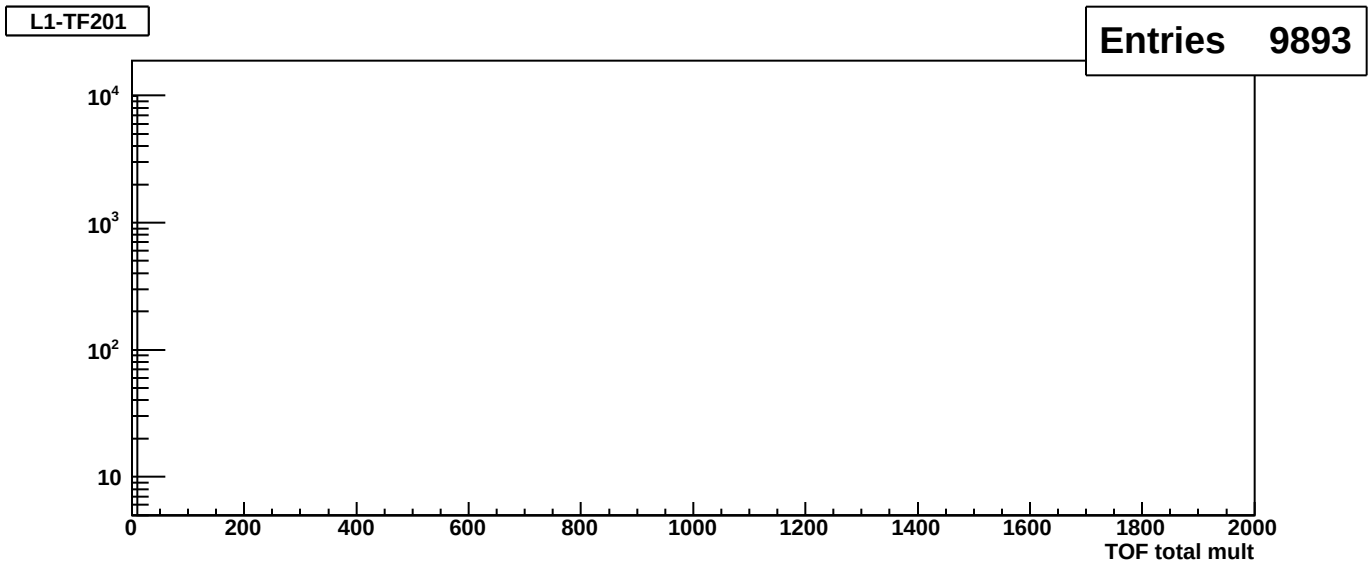

MIX-TF003
Entries 415506
TOF MULT
TOF tray

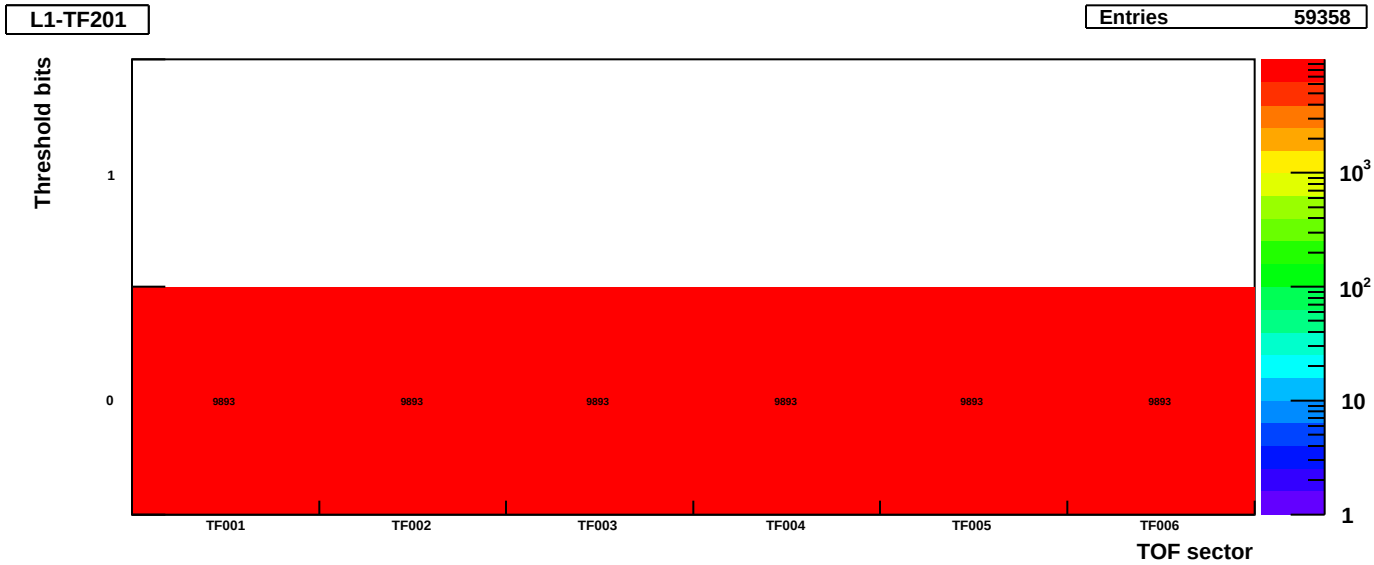

MIX-TF004
Entries 415506
TOF MULT
TOF tray

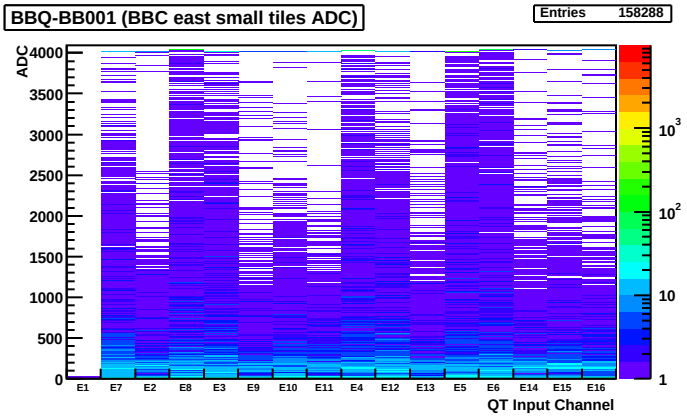

MIX-TF005
Entries 415506
TOF MULT
TOF tray

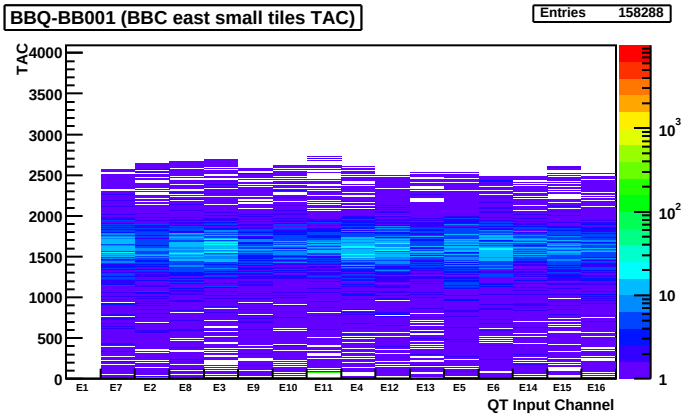

MIX-TF006
Entries 415506
TOF MULT
TOF tray

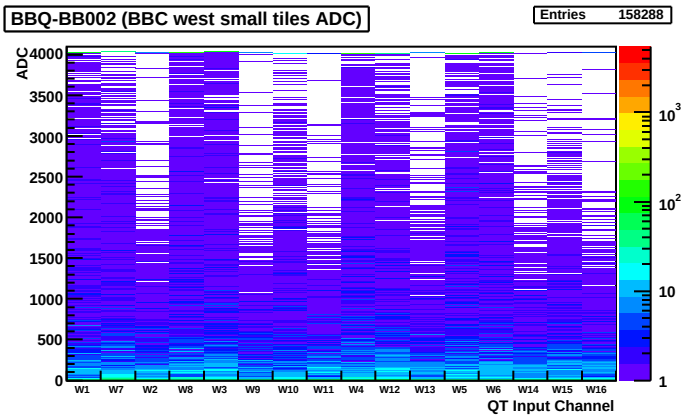

MIX-TF101
Entries 59358
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

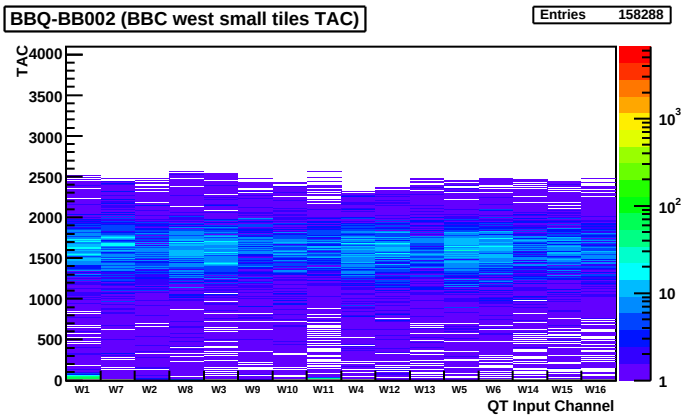

L1-TF201
Entries 9893
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

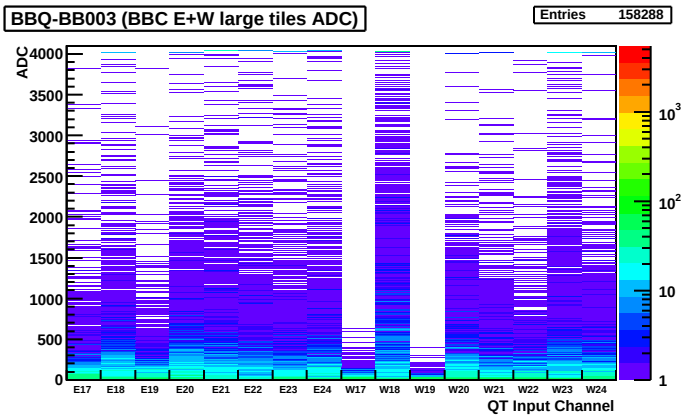

L1-TF201
Entries 59358
Threshold bits
1
0
9893
9893
9893
9893
9893
9893
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3
10^2
10
1

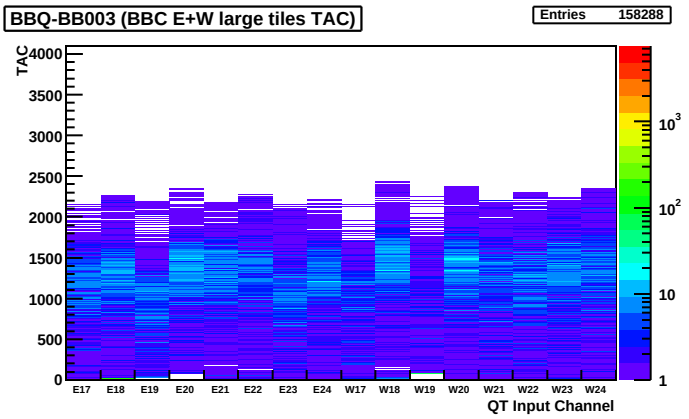

BBQ-BB001 (BBC east small tiles ADC)
Entries 158288
ADC
QT Input Channel

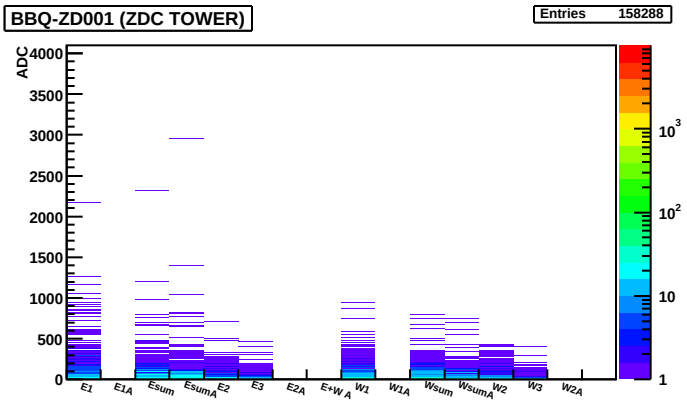

BBQ-BB001 (BBC east small tiles TAC)
Entries 158288
TAC
QT Input Channel

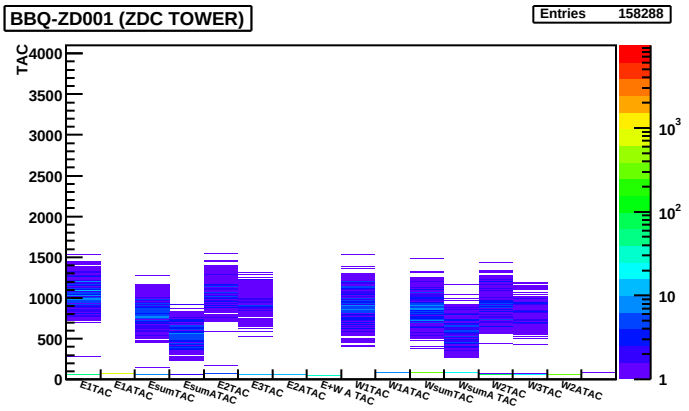

BBQ-BB002 (BBC west small tiles ADC)
Entries 158288
ADC
QT Input Channel

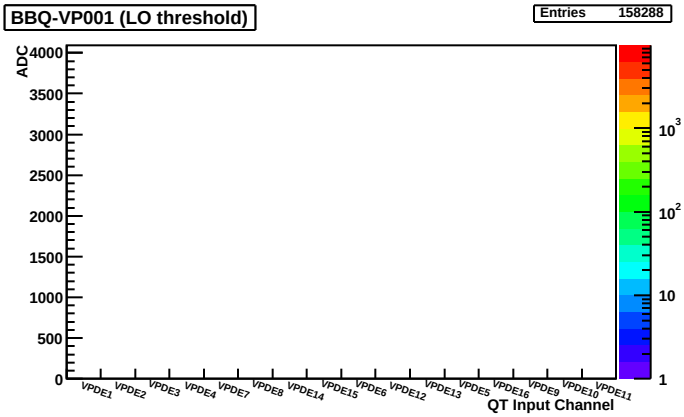

BBQ-BB002 (BBC west small tiles TAC)
Entries 158288
TAC
QT Input Channel

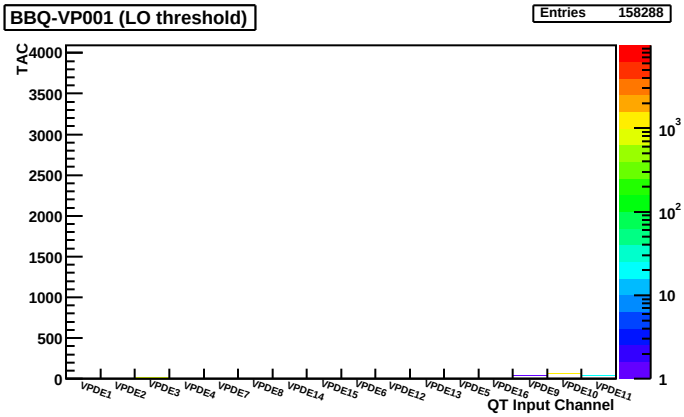

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 158288
ADC
QT Input Channel

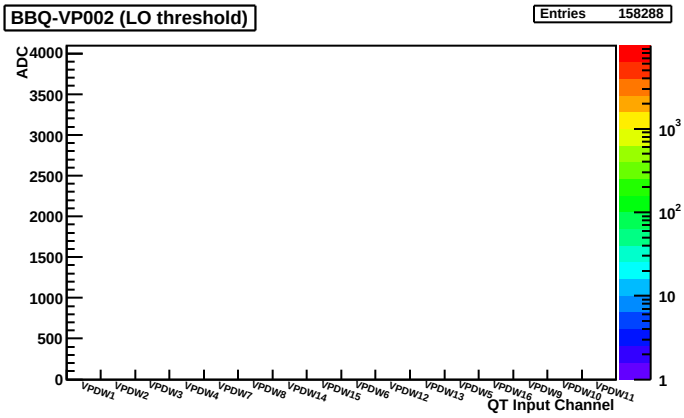

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 158288
TAC
QT Input Channel

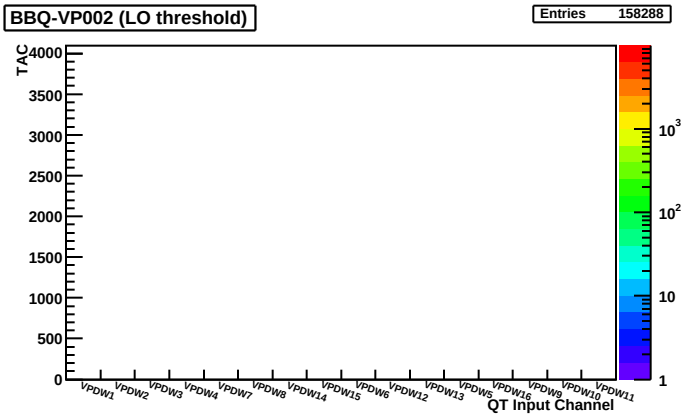

BBQ-ZD001 (ZDC TOWER)
Entries 158288
ADC

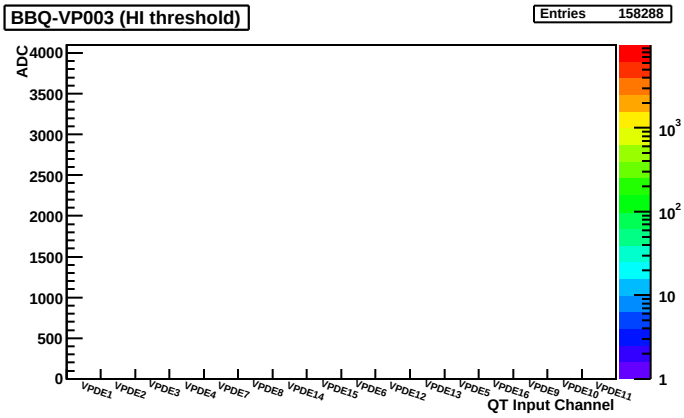

BBQ-ZD001 (ZDC TOWER)
Entries 158288
TAC

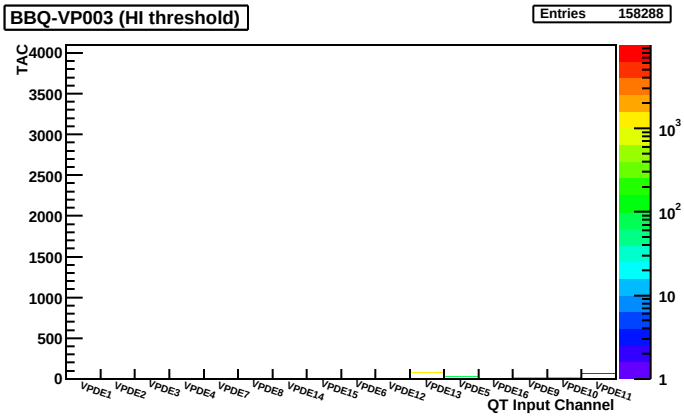

BBQ-VP001 (LO threshold)
Entries 158288
ADC
QT Input Channel

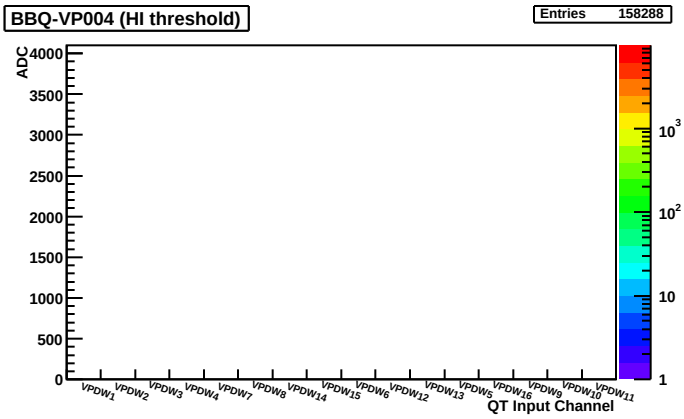

BBQ-VP001 (LO threshold)
Entries 158288
TAC
QT Input Channel

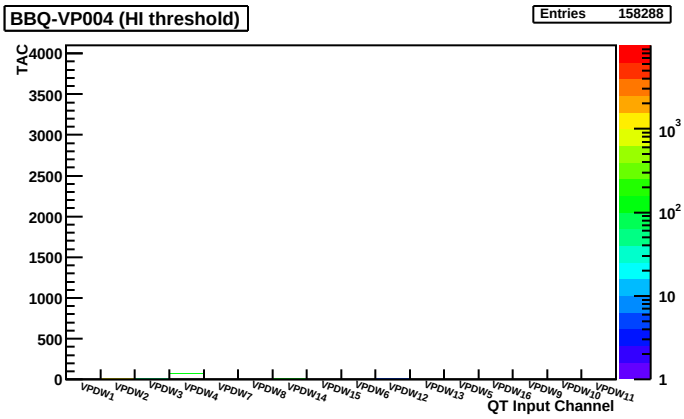

BBQ-VP002 (LO threshold)
Entries 158288
ADC
QT Input Channel

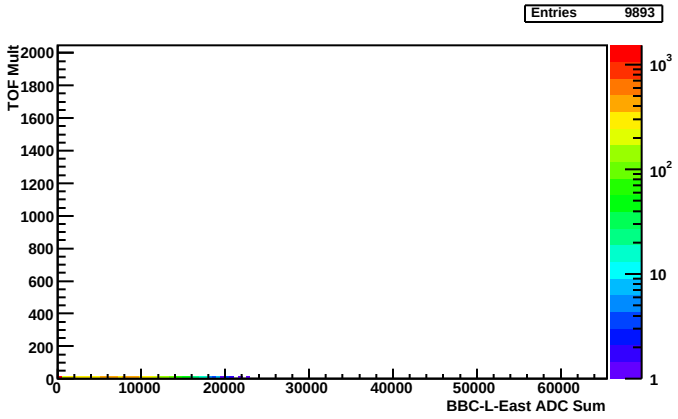

BBQ-VP002 (LO threshold)
Entries 158288
TAC
QT Input Channel

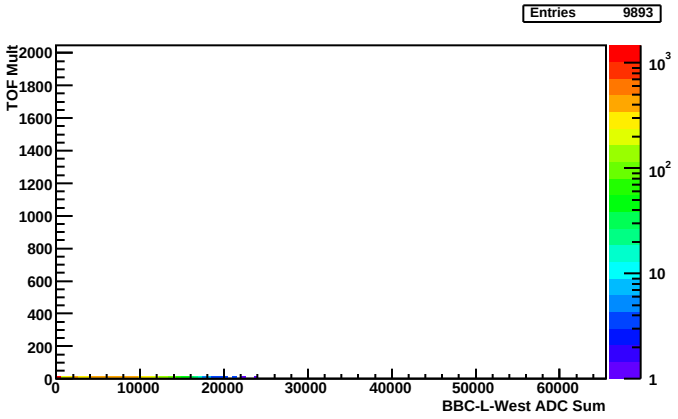

BBQ-VP003 (HI threshold)
Entries 158288
ADC
QT Input Channel

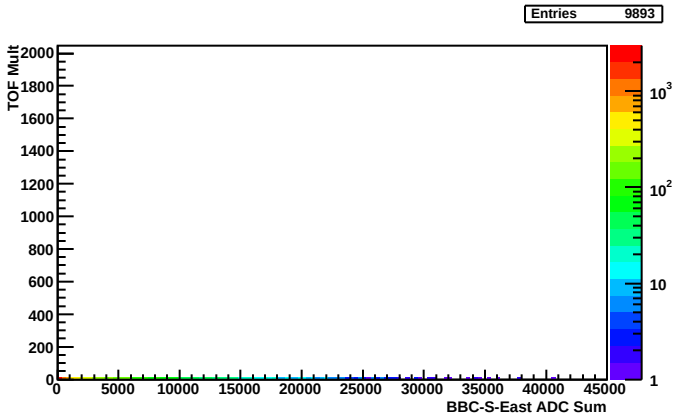

BBQ-VP003 (HI threshold)
Entries 158288
TAC
QT Input Channel

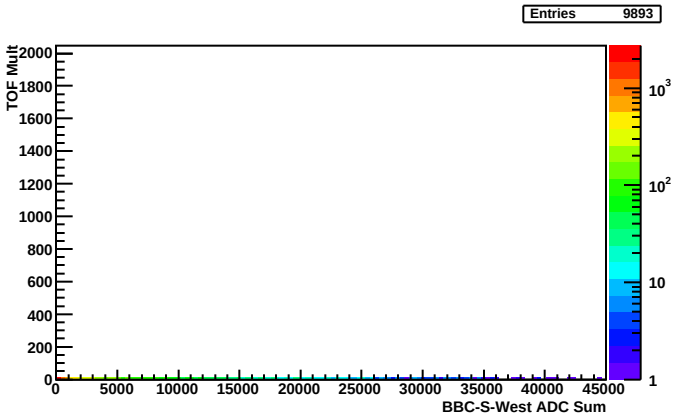

BBQ-VP004 (HI threshold)
Entries 158288
ADC
QT Input Channel

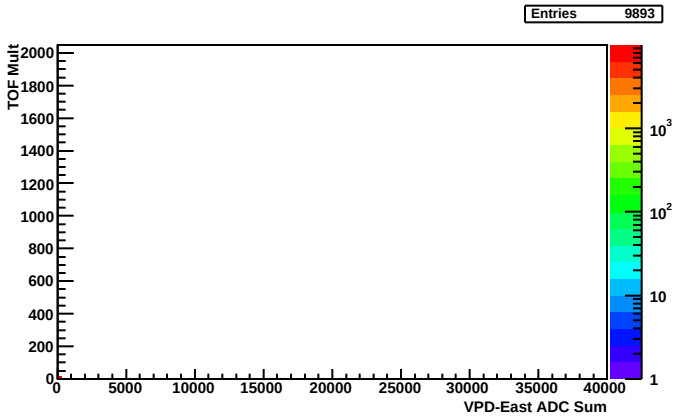

BBQ-VP004 (HI threshold)
Entries 158288
TAC
QT Input Channel

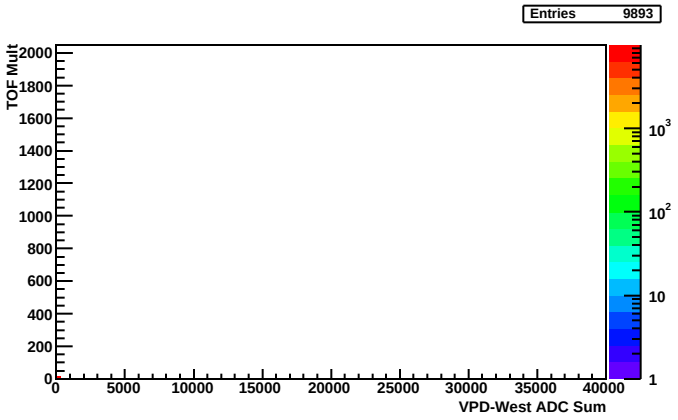

Entries 9893
TOF Mult
BBC-L-East ADC Sum

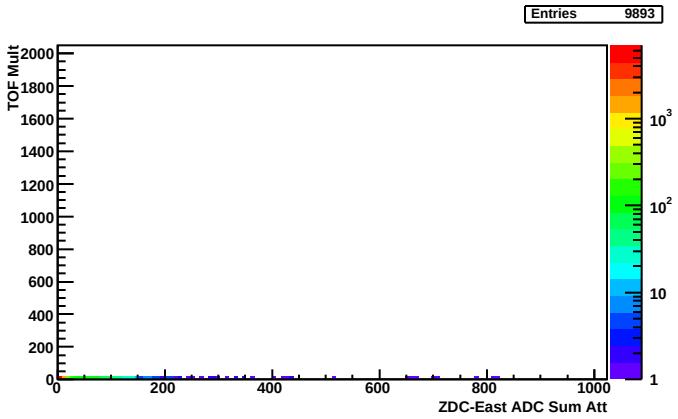

Entries 9893
TOF Mult
BBC-L-West ADC Sum

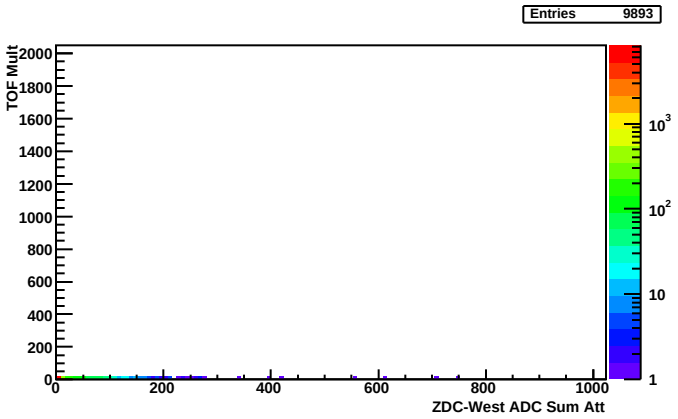

Entries 9893
TOF Mult
BBC-S-East ADC Sum

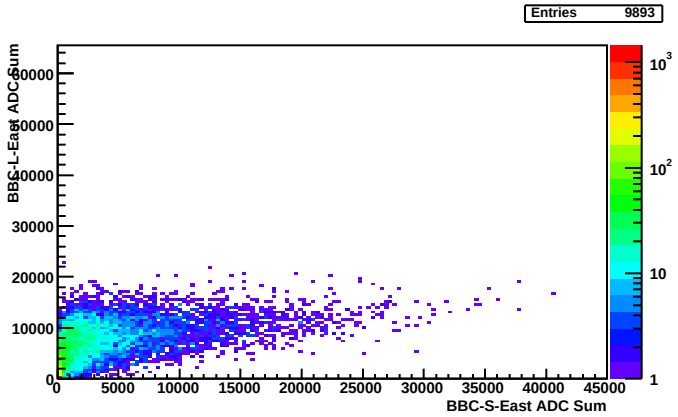

Entries 9893
TOF Mult
BBC-S-West ADC Sum

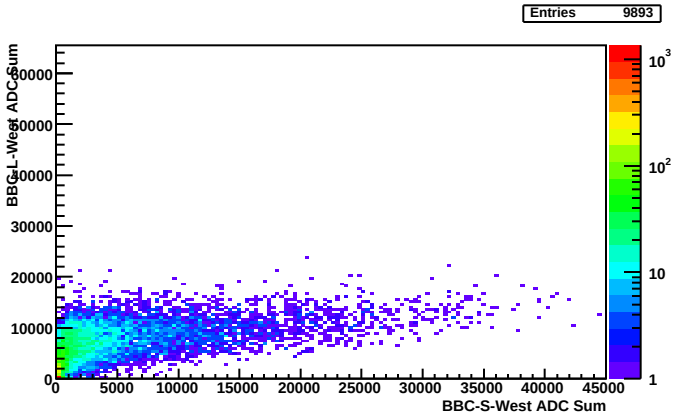

Entries 9893
TOF Mult
VPD-East ADC Sum

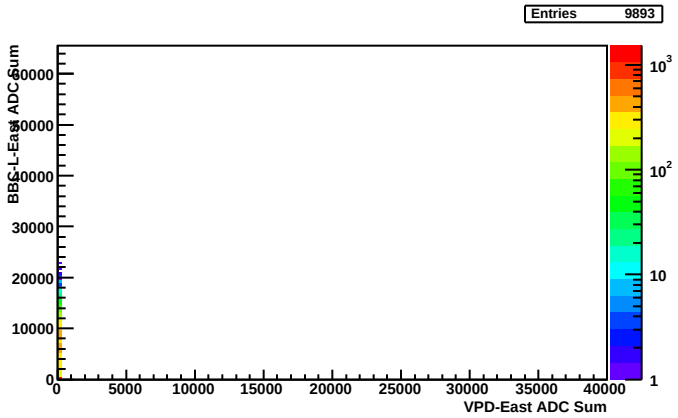

Entries 9893
TOF Mult
VPD-West ADC Sum

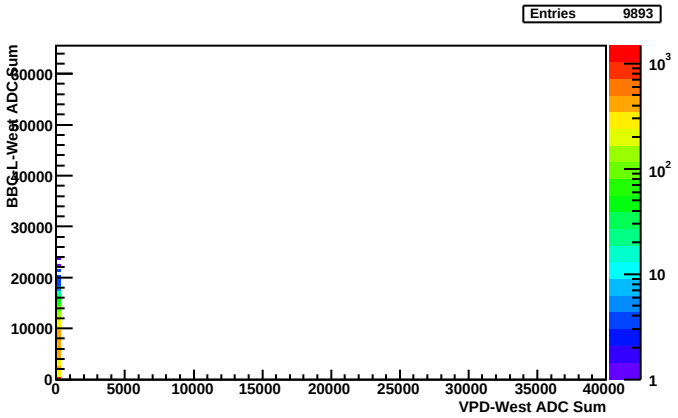

Entries 9893
TOF Mult
ZDC-East ADC Sum Att

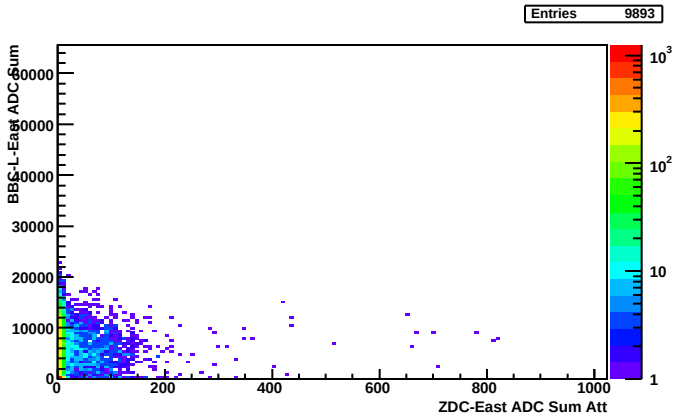

Entries 9893
TOF Mult
ZDC-West ADC Sum Att

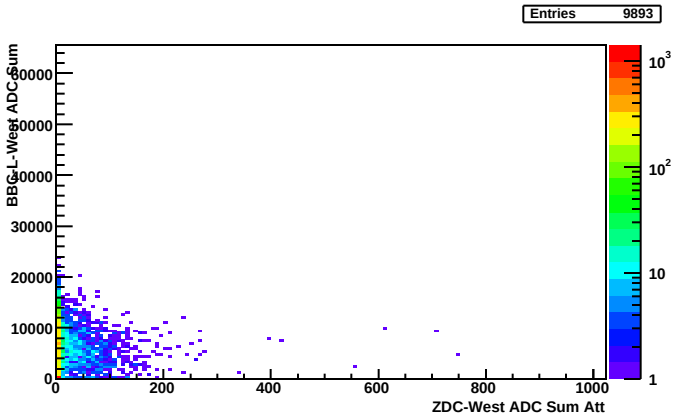

Entries 9893
BBC-L-East ADC Sum
BBC-S-East ADC Sum

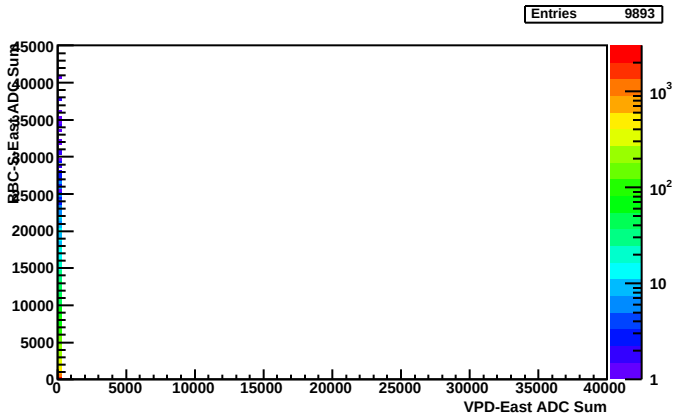

Entries 9893
BBC-L-West ADC Sum
BBC-S-West ADC Sum

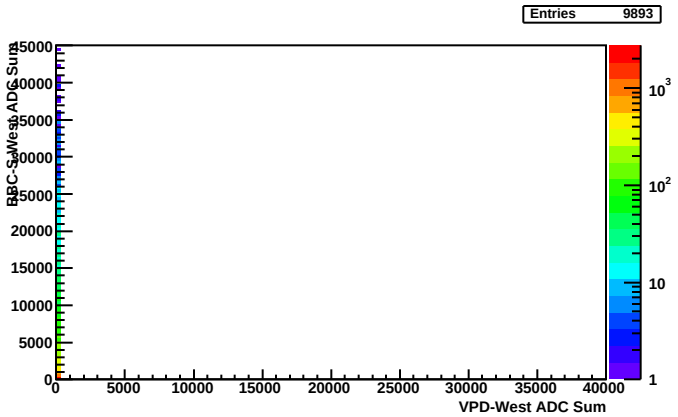

Entries 9893
BBC-L-East ADC Sum
VPD-East ADC Sum

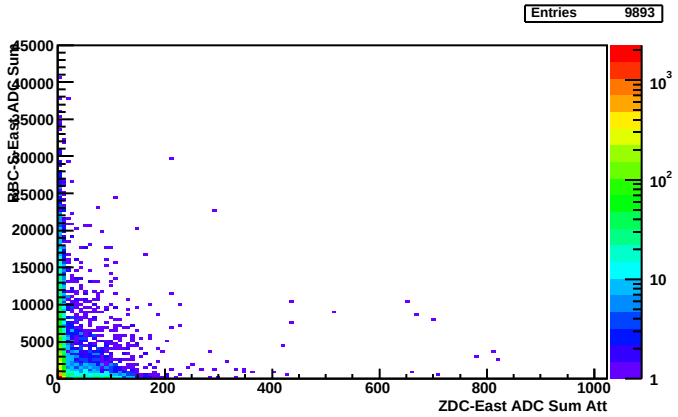

Entries 9893
BBC-L-West ADC Sum
VPD-West ADC Sum

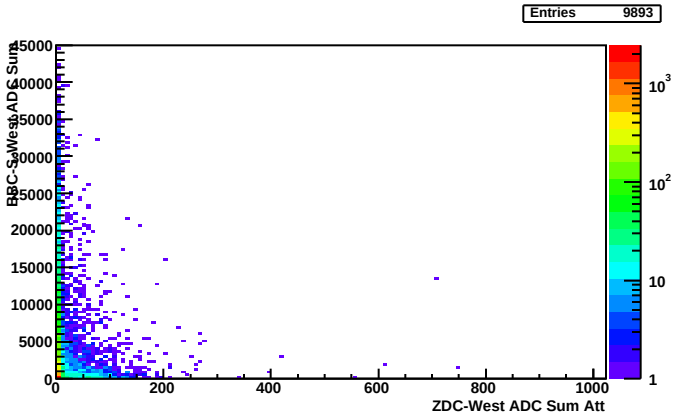

Entries 9893
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

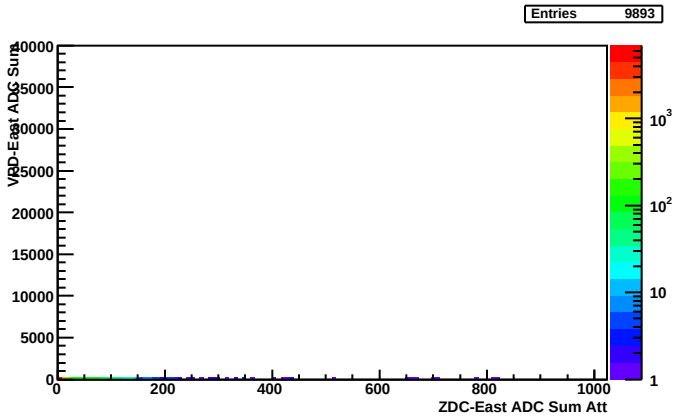

Entries 9893
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

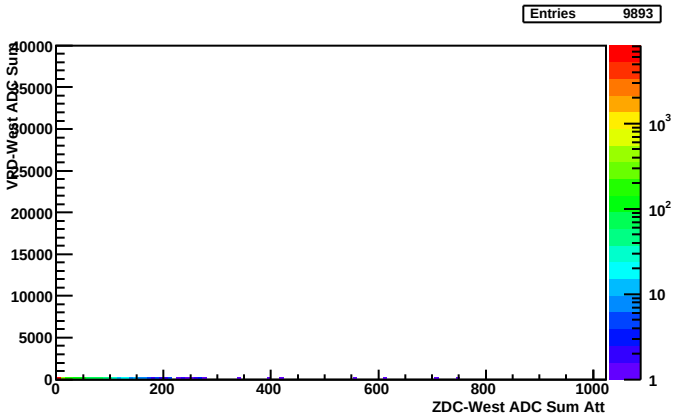

Entries 9893
BBC-S-East ADC Sum
VPD-East ADC Sum

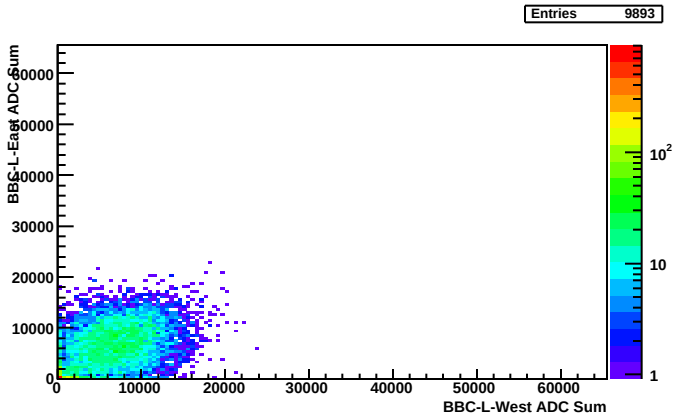

Entries 9893
BBC-S-West ADC Sum
VPD-West ADC Sum

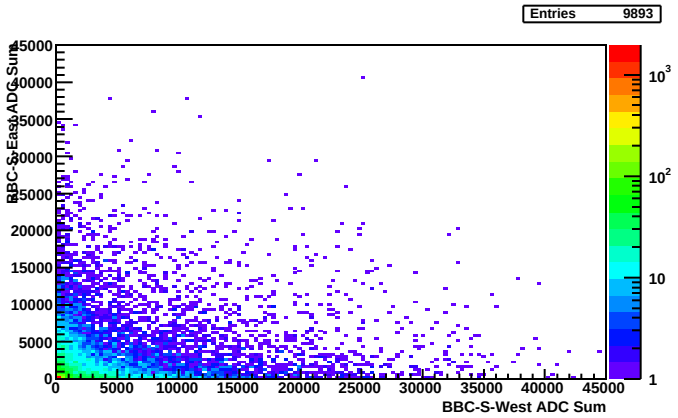

Entries 9893
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

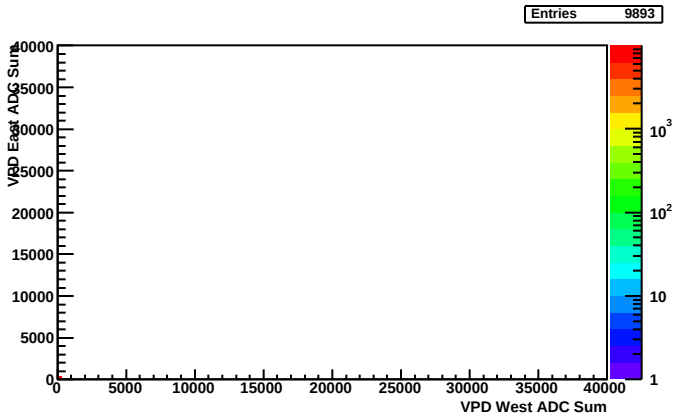

Entries 9893
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

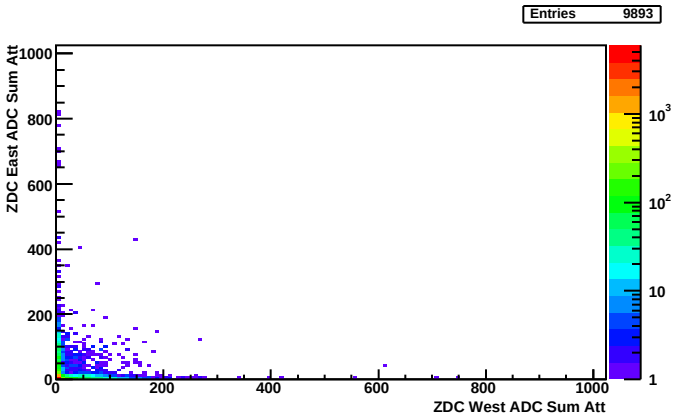

Entries 9893
VPD-East ADC Sum
ZDC-East ADC Sum Att

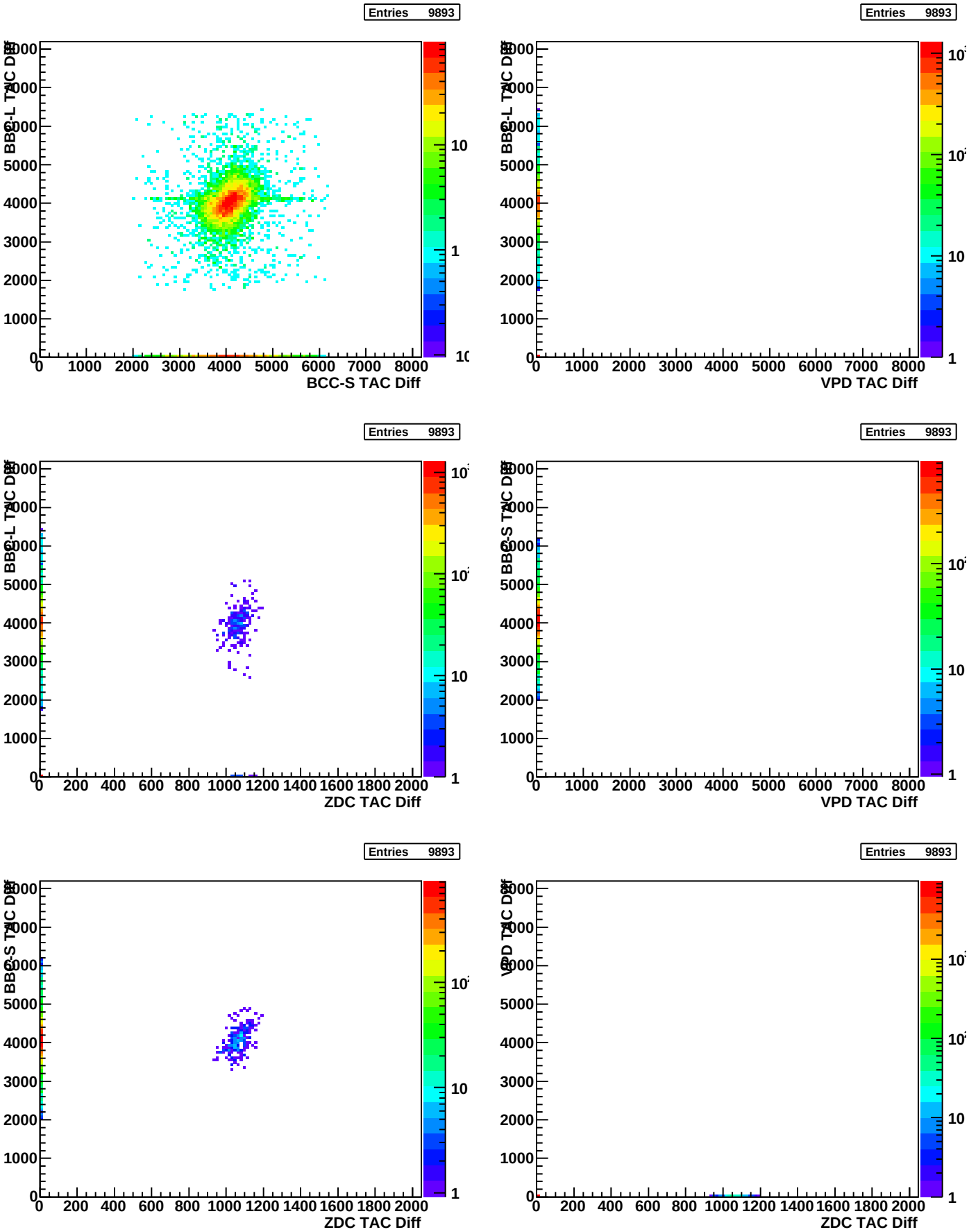

Entries 9893
VPD-West ADC Sum
ZDC-West ADC Sum Att

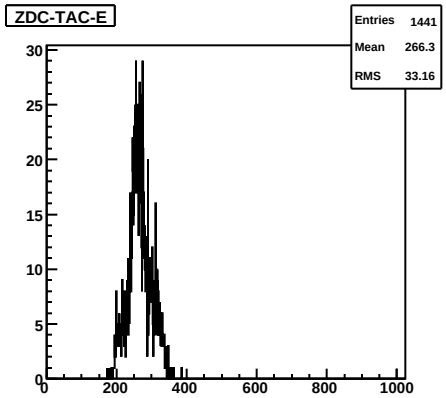

Entries 9893
BBC-L-East ADC Sum
BBC-L-West ADC Sum

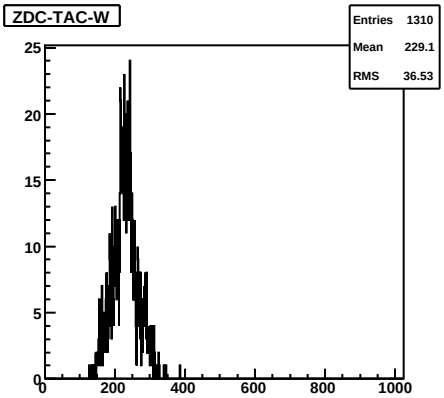

Entries 9893
BBC-S-East ADC Sum
BBC-S-West ADC Sum

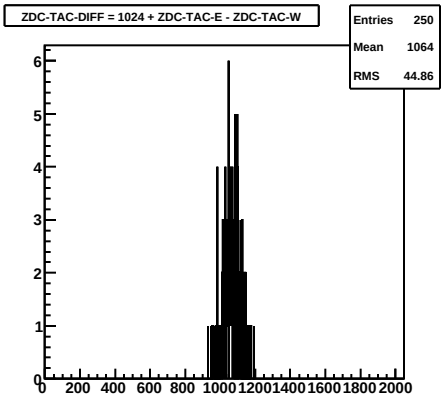

Entries 9893
VPD East ADC Sum
VPD West ADC Sum

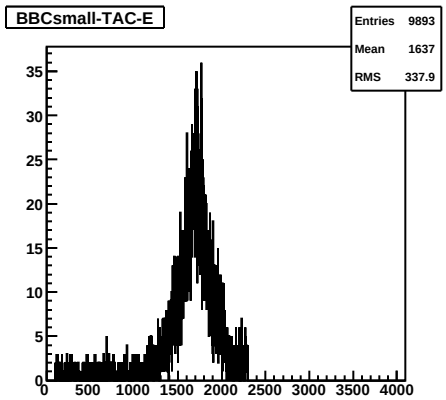

Entries 9893
ZDC East ADC Sum Att
ZDC West ADC Sum Att

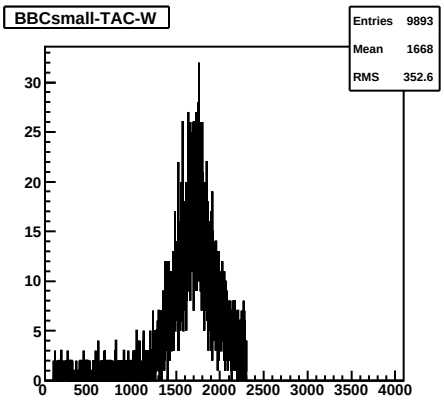

Entries 9893
BBC-L TAC Diff
BCC-S TAC Diff
Entries 9893
BBC-L TAC Diff
VPD TAC Diff
Entries 9893
BBC-L TAC Diff
ZDC TAC Diff
Entries 9893
BBC-S TAC Diff
VPD TAC Diff
Entries 9893
BBC-S TAC Diff
ZDC TAC Diff
Entries 9893
VPD TAC Diff
ZDC TAC Diff

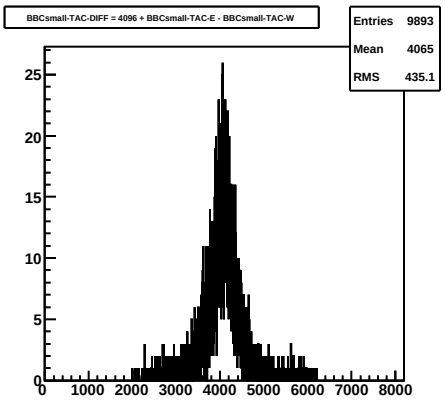

ZDC-TAC-E
Entries 1441
Mean 266.3
RMS 33.16

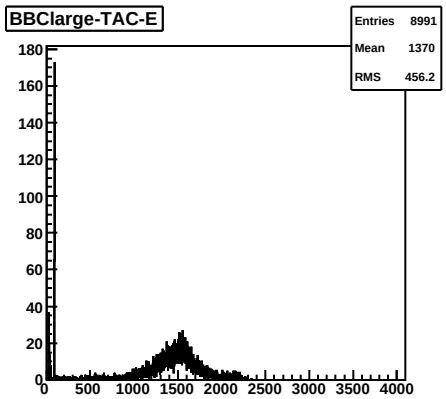

ZDC-TAC-W
Entries 1310
Mean 229.1
RMS 36.53

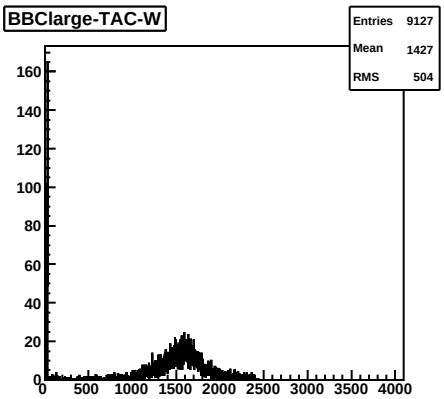

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 250
Mean 1064
RMS 44.86

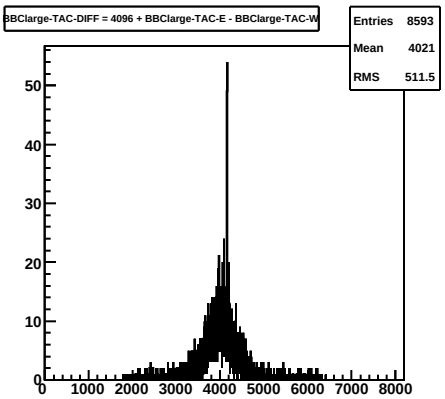

BBCsmall-TAC-E
Entries 9893
Mean 1637
RMS 337.9

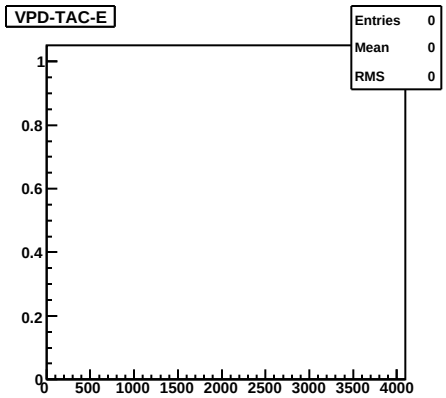

BBCsmall-TAC-W
Entries 9893
Mean 1668
RMS 352.6

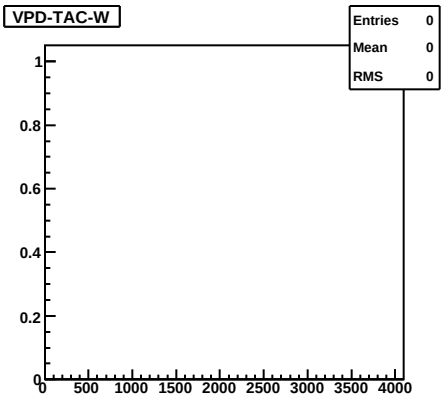

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 9893
Mean 4065
RMS 435.1

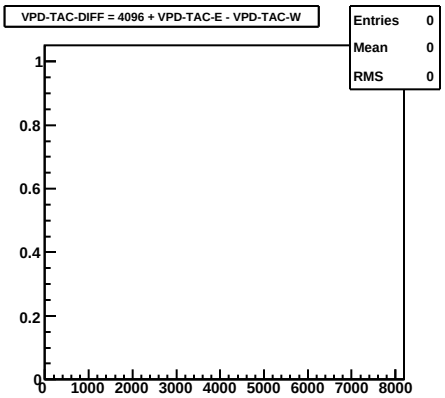

BBClarge-TAC-E
Entries 8991
Mean 1370
RMS 456.2

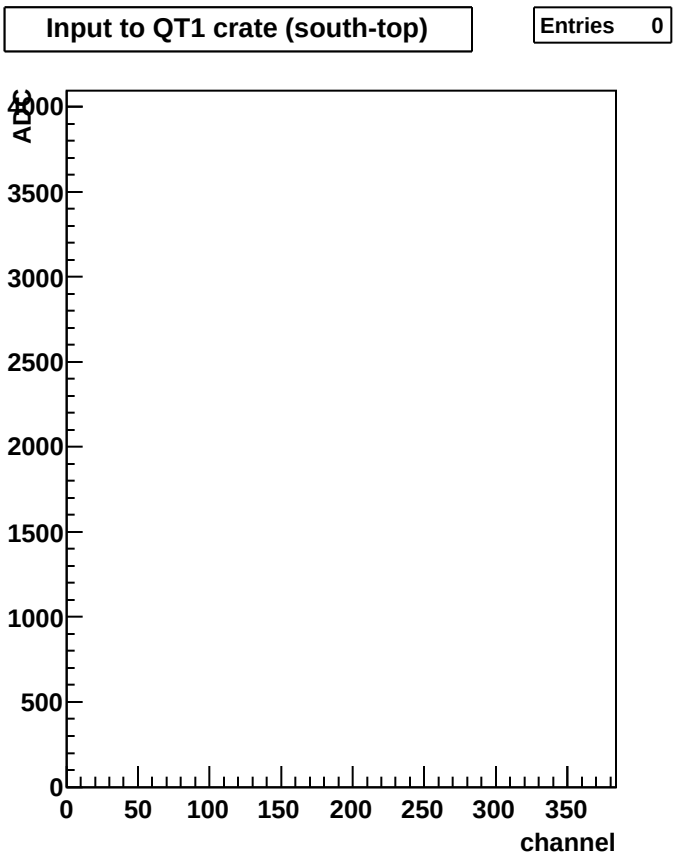

BBClarge-TAC-W
Entries 9127
Mean 1427
RMS 504

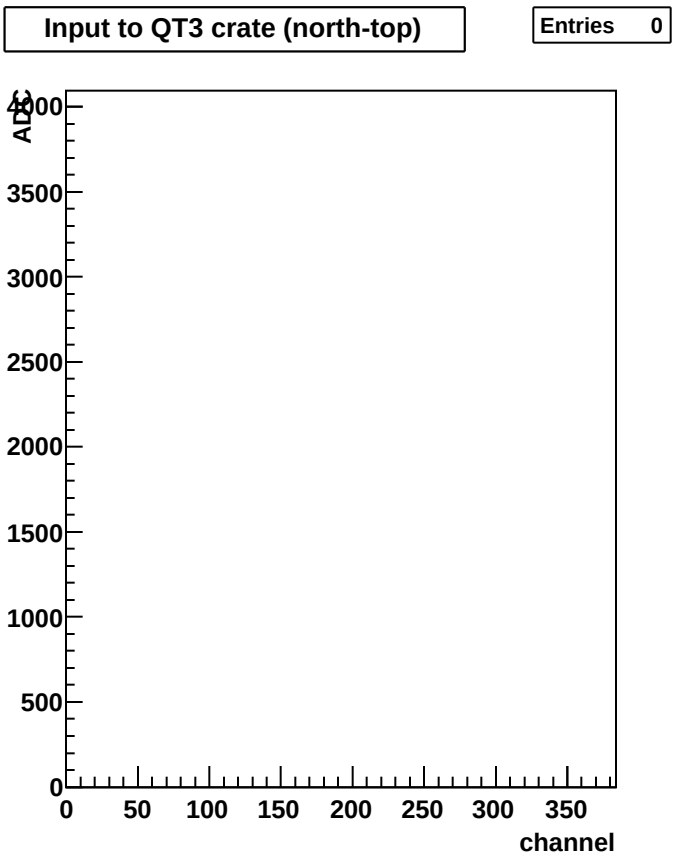

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 8593
Mean 4021
RMS 511.5

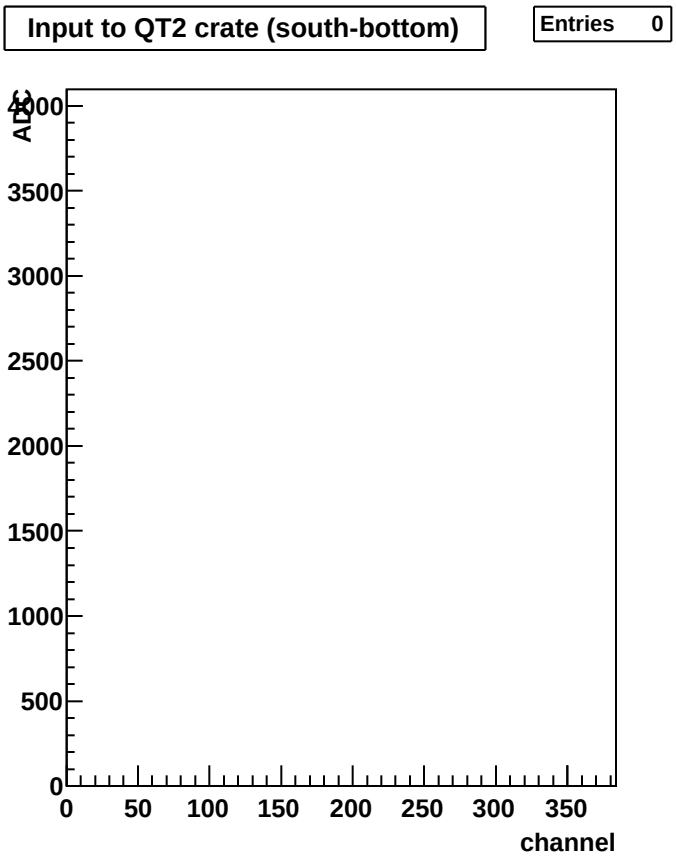

VPD-TAC-E
Entries 0
Mean 0
RMS 0

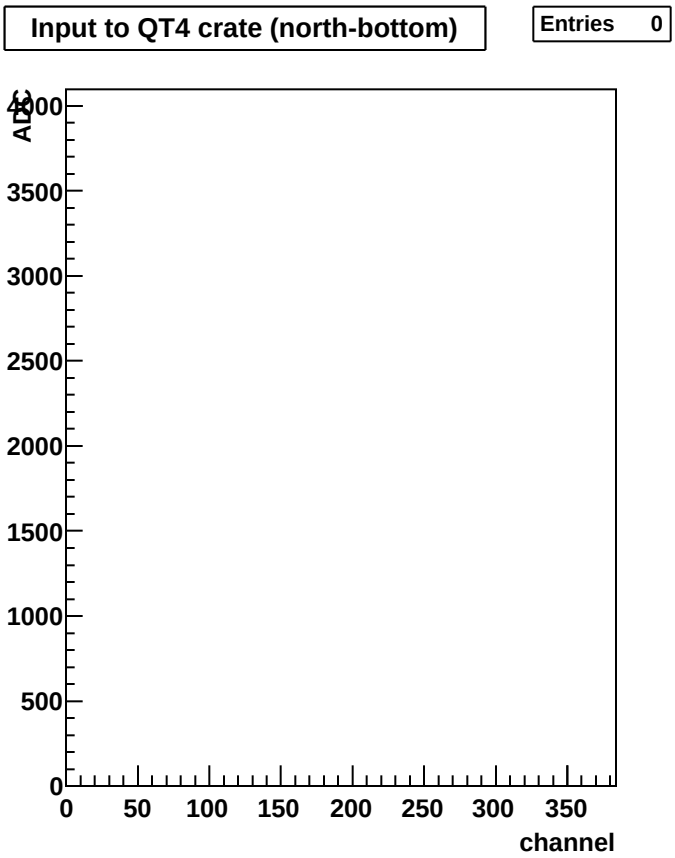

VPD-TAC-W
Entries 0
Mean 0
RMS 0

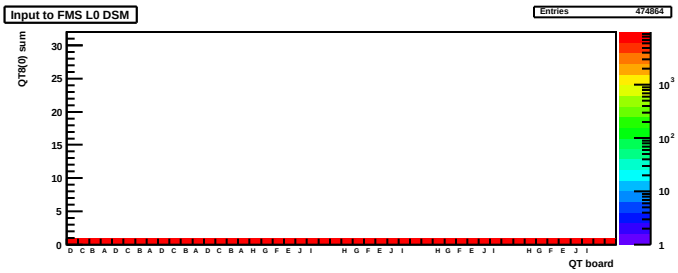

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

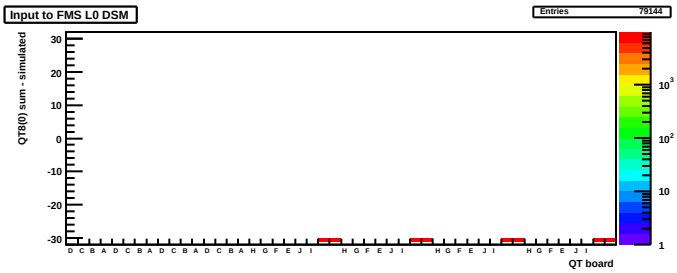

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

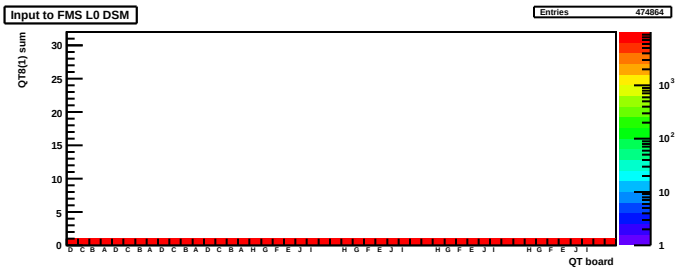

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

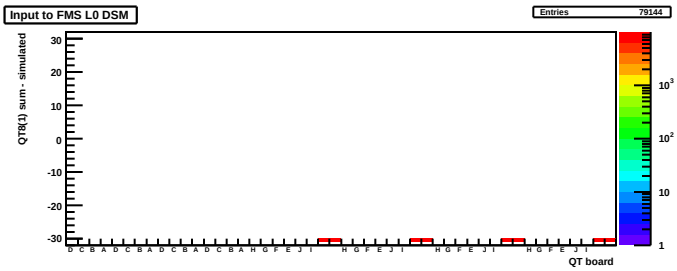

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

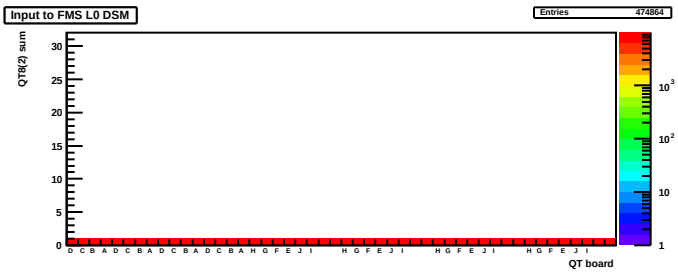

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

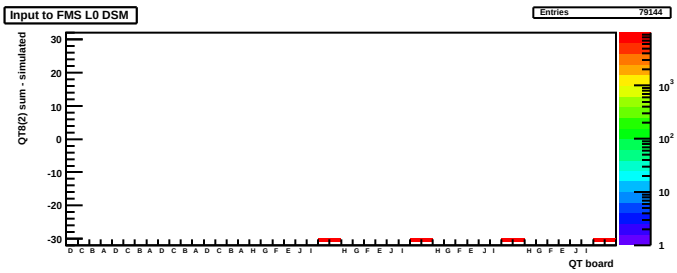

Input to FMS L0 DSM
Entries 474864
QT8(0) sum
QT board

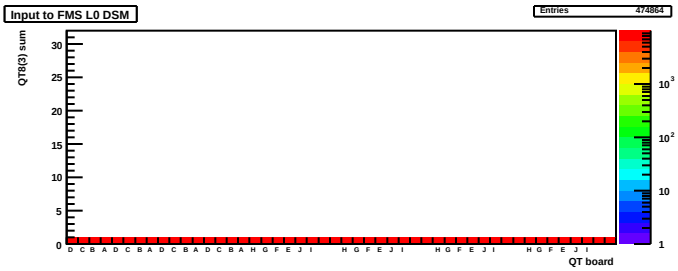

Input to FMS L0 DSM
Entries 79144
QT8(0) sum - simulated
QT board

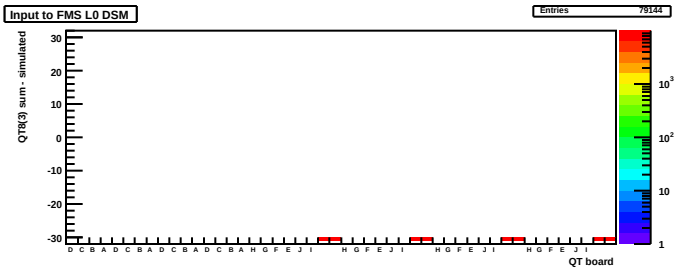

Input to FMS L0 DSM
Entries 474864
QT8(1) sum
QT board

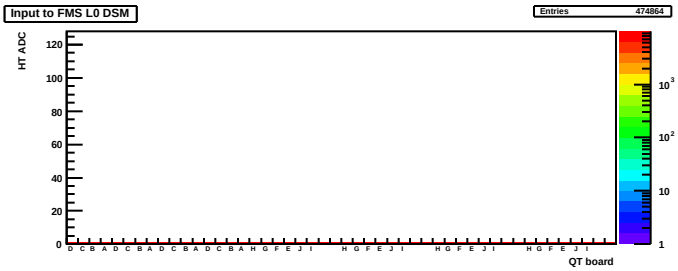

Input to FMS L0 DSM
Entries 79144
QT8(1) sum - simulated
QT board

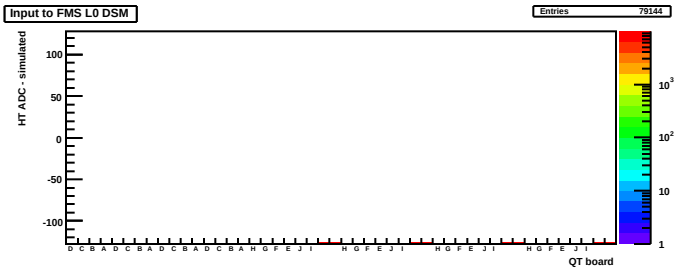

Input to FMS L0 DSM
Entries 474864
QT8(2) sum
QT board

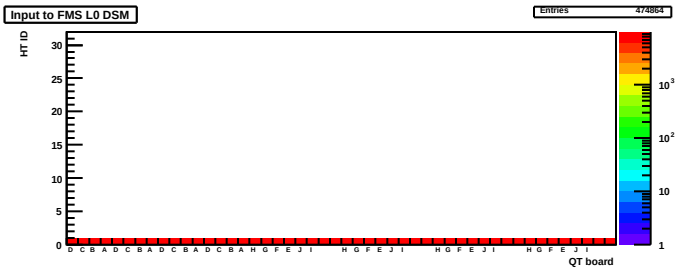

Input to FMS L0 DSM
Entries 79144
QT8(2) sum - simulated
QT board

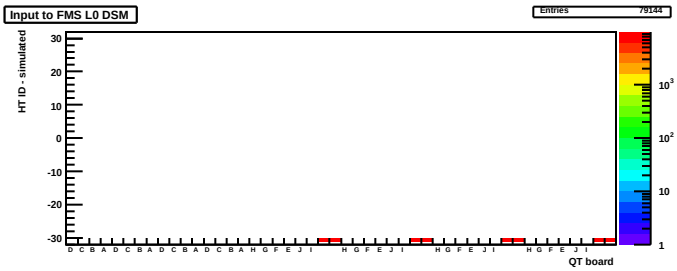

Input to FMS L0 DSM
Entries 474864
QT8(3) sum
QT board

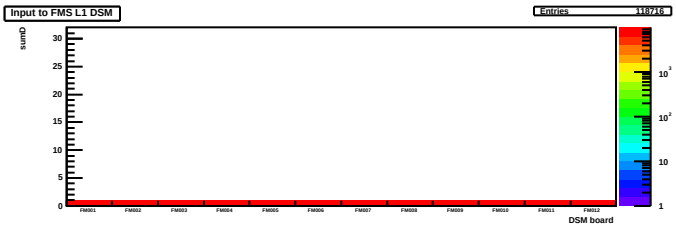

Input to FMS L0 DSM
Entries 79144
QT8(3) sum - simulated
QT board

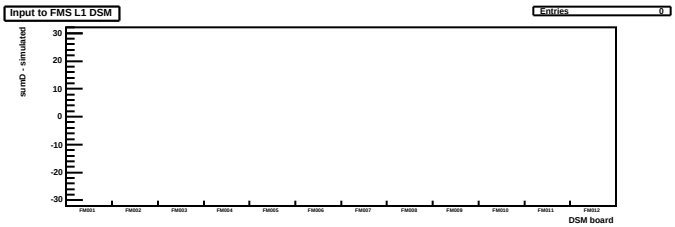

Input to FMS L0 DSM
Entries 474864
HT ADC
QT board

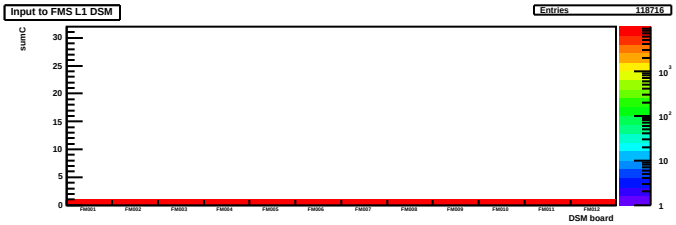

Input to FMS L0 DSM
Entries 79144
HT ADC - simulated
QT board

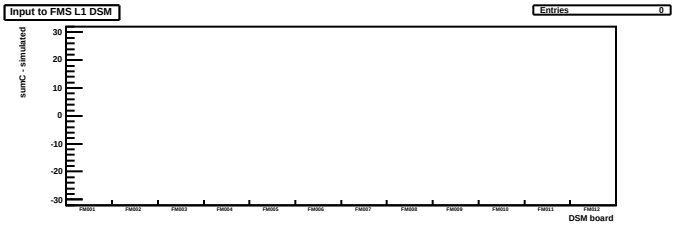

Input to FMS L0 DSM
Entries 474864
HT ID
QT board

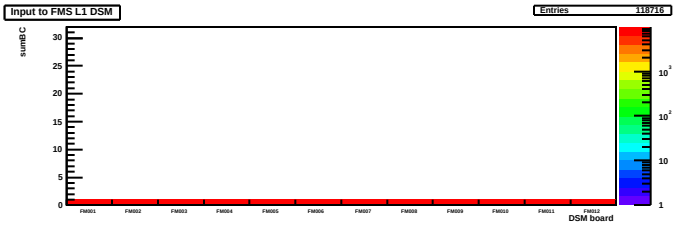

Input to FMS L0 DSM
Entries 79144
HT ID - simulated
QT board

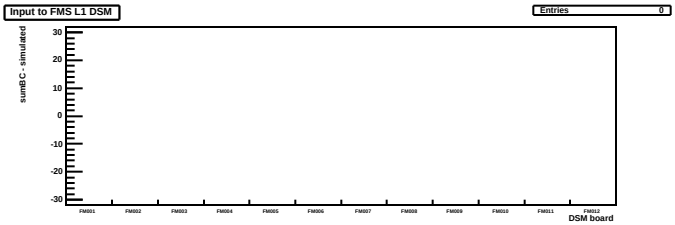

Input to FMS L1 DSM
Entries 118716
sumD
DSM board

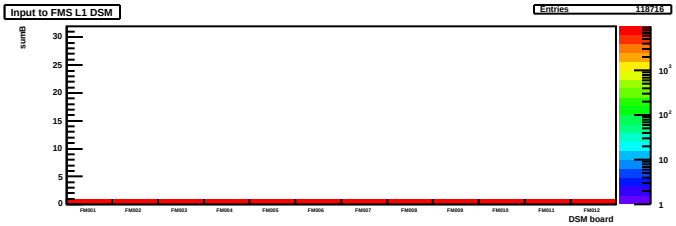

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

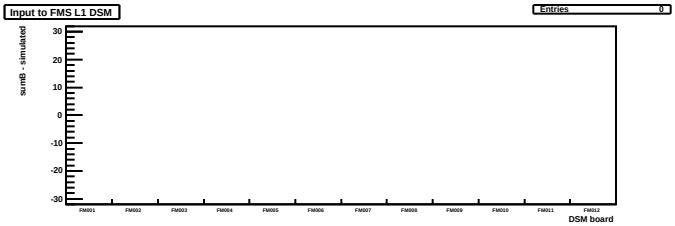

Input to FMS L1 DSM
Entries 118716
sumC
DSM board

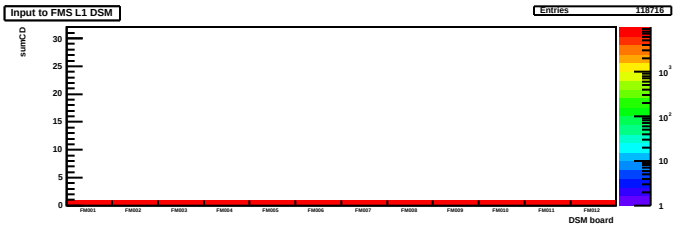

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

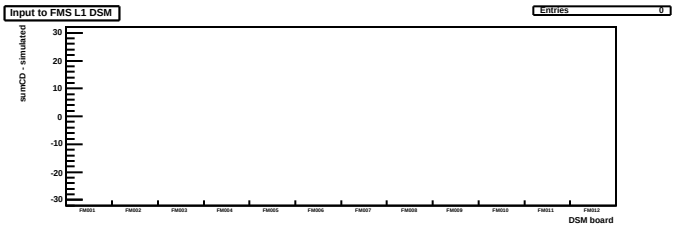

Input to FMS L1 DSM
Entries 118716
sumBC
DSM board

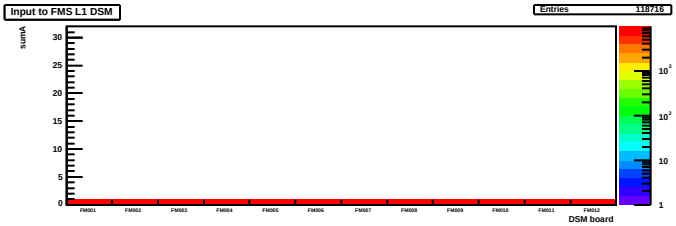

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

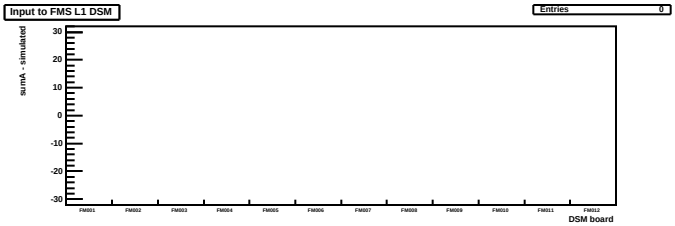

Input to FMS L1 DSM
Entries 118716
sumB
DSM board

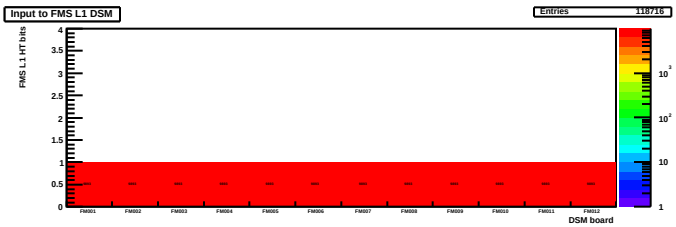

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

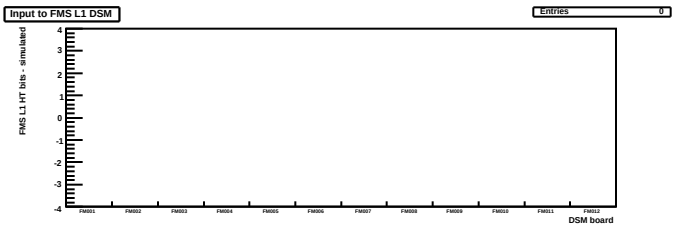

Input to FMS L1 DSM
Entries 118716
sumCD
DSM board

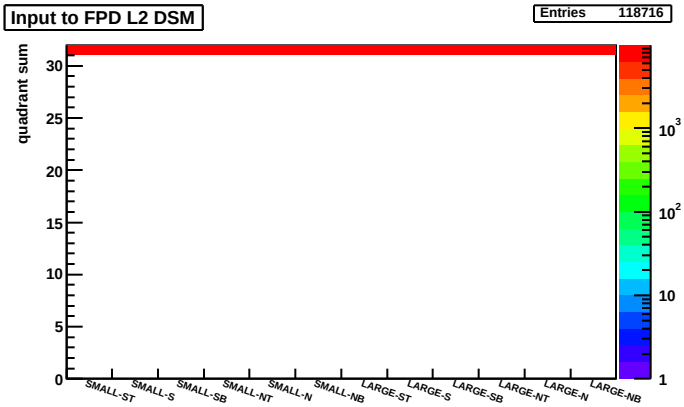

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

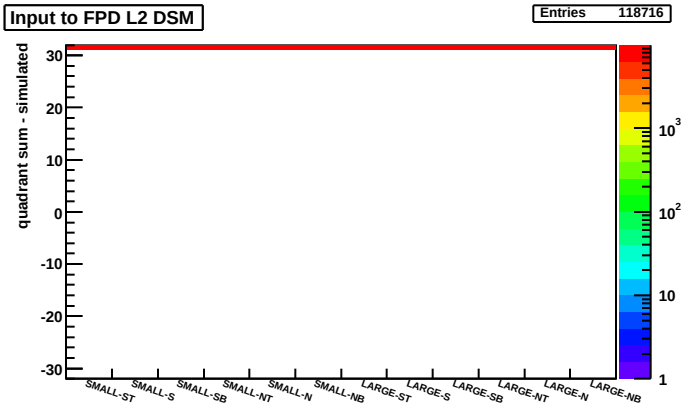

Input to FMS L1 DSM
Entries 118716
sumA
DSM board

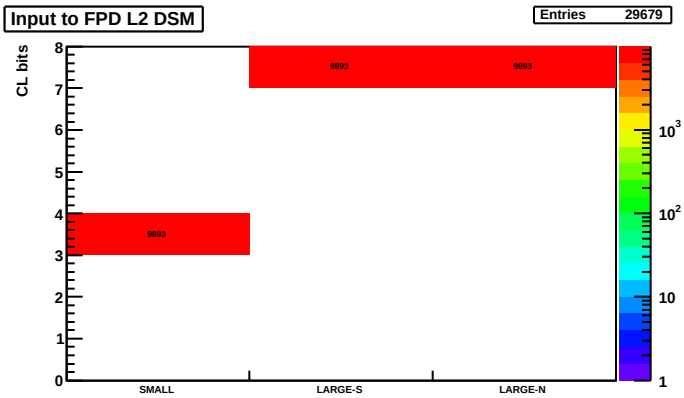

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

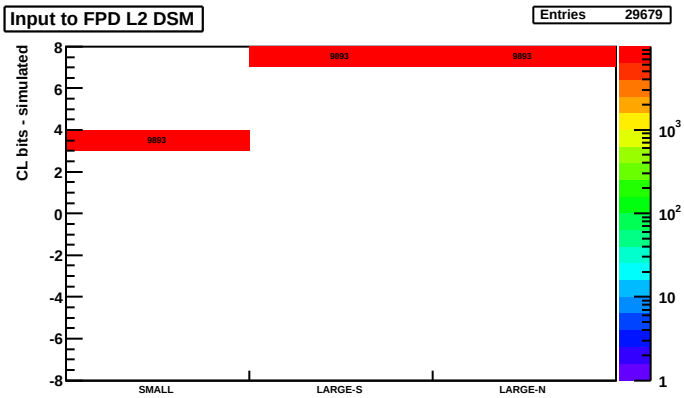

Input to FMS L1 DSM
Entries 118716
FMS L1 HT bits
DSM board

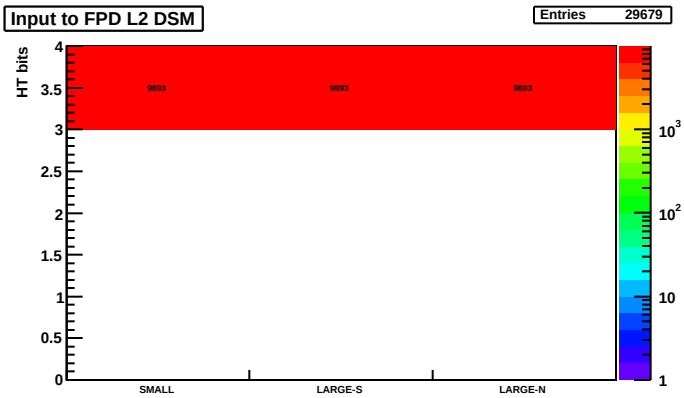

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

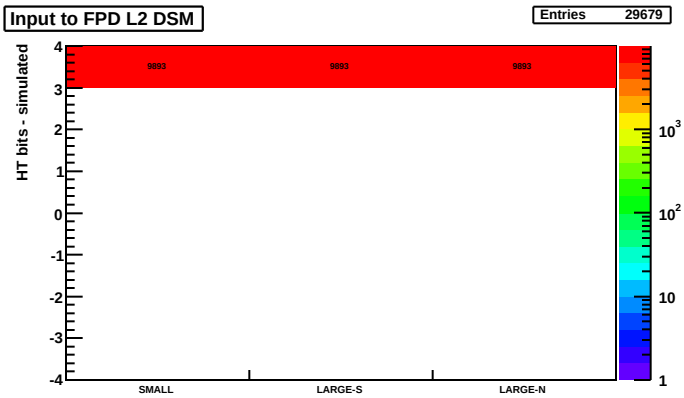

Input to FPD L2 DSM
Entries 118716
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

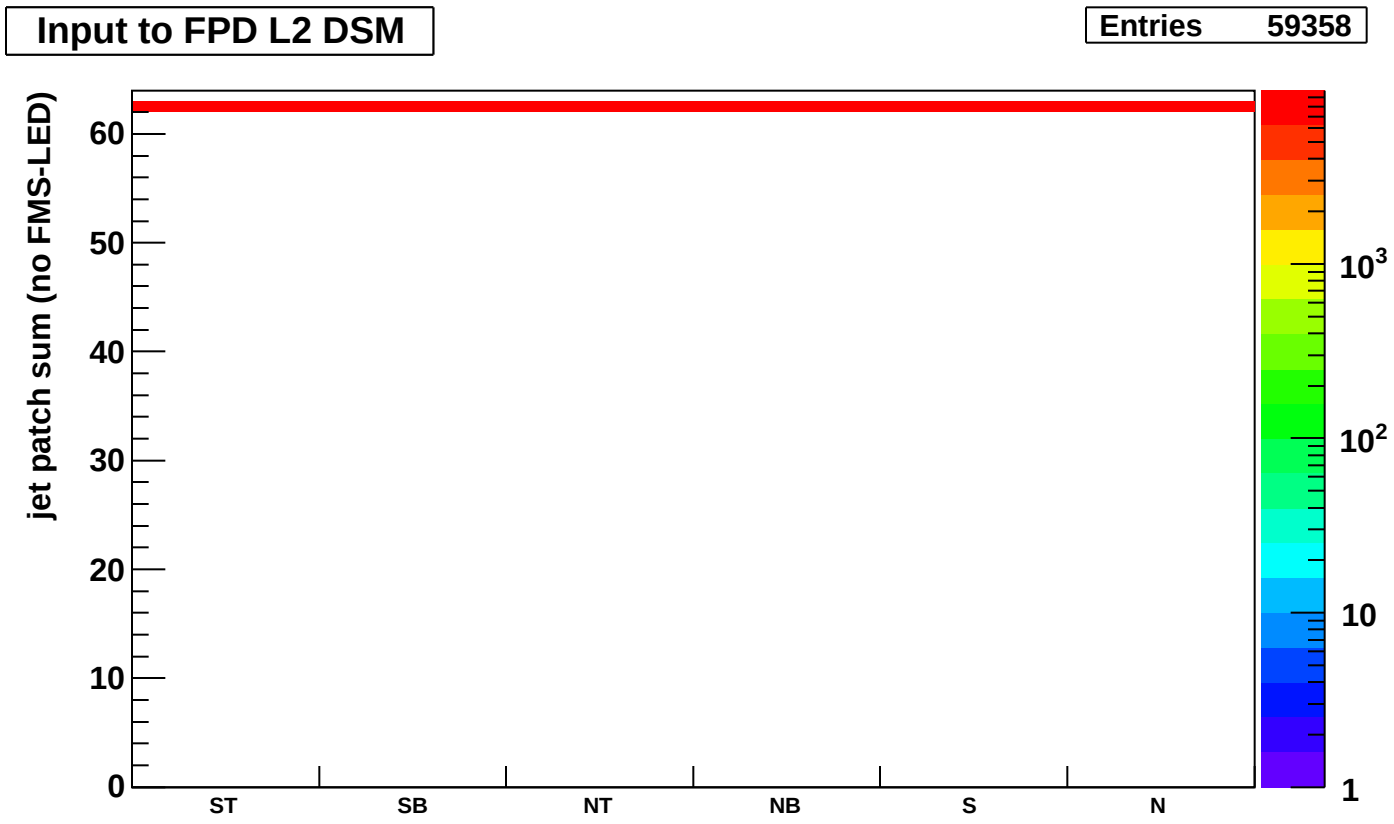

Input to FPD L2 DSM
Entries 118716
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

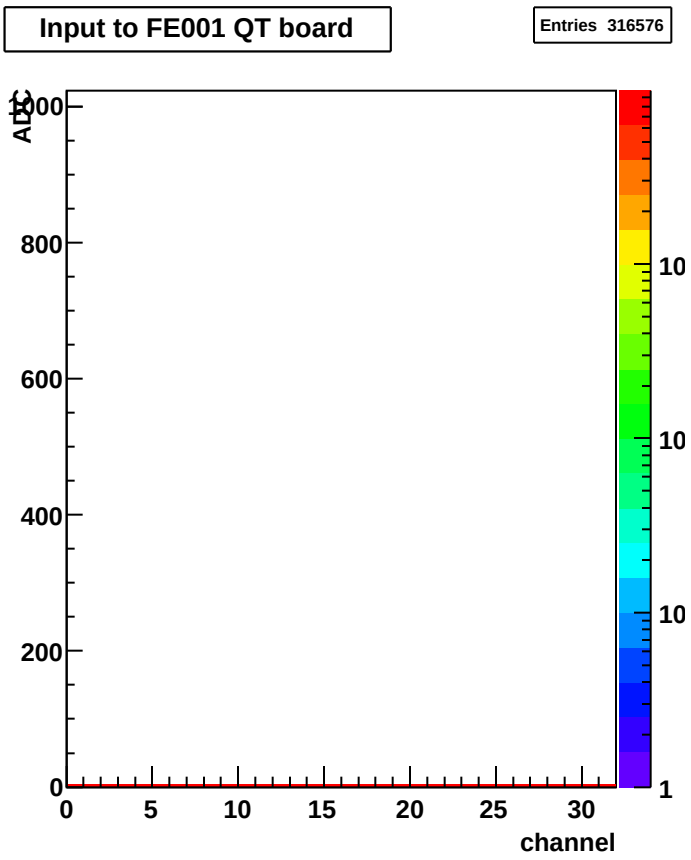

Input to FPD L2 DSM
Entries 29679
CL bits
9893
9893
9893
SMALL
LARGE-S
LARGE-N

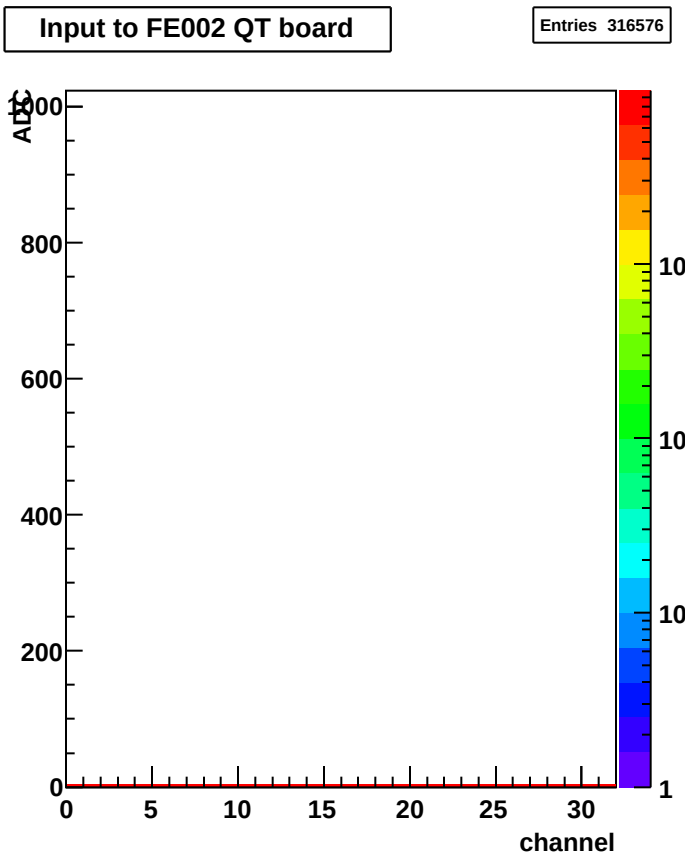

Input to FPD L2 DSM
Entries 29679
CL bits - simulated
9893
9893
9893
SMALL
LARGE-S
LARGE-N

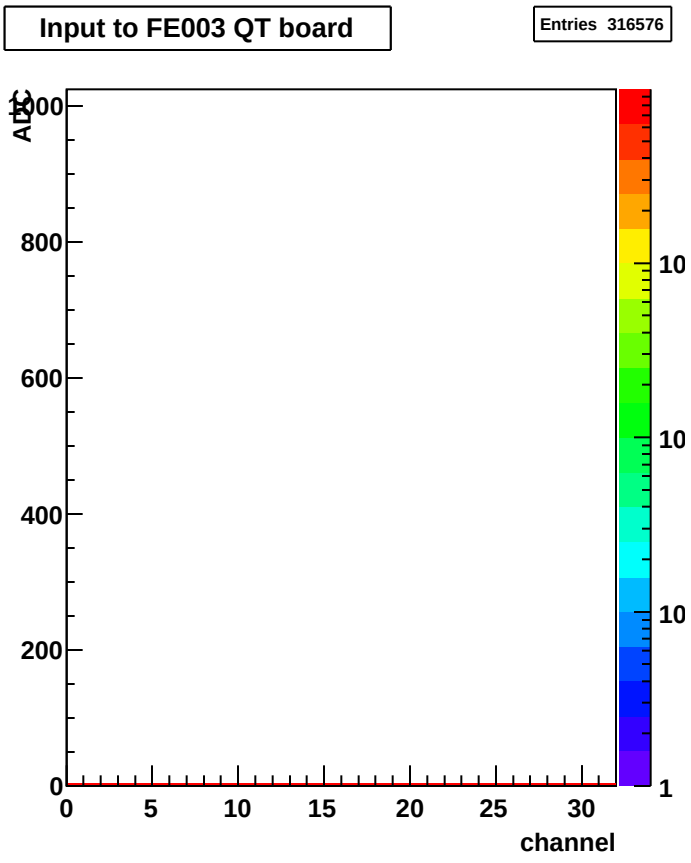

Input to FPD L2 DSM
Entries 29679
HT bits
9893
9893
9893
SMALL
LARGE-S
LARGE-N

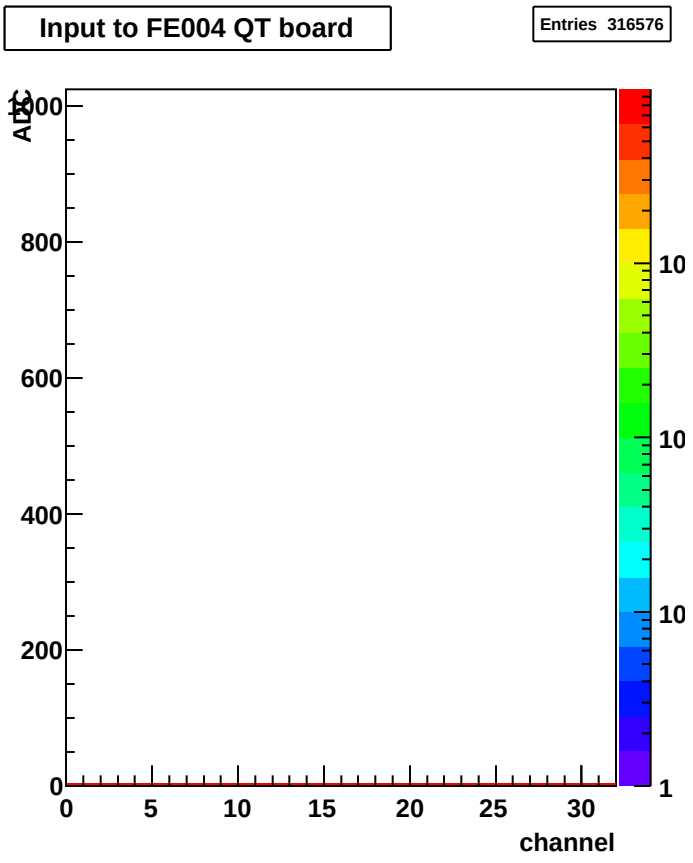

Input to FPD L2 DSM
Entries 29679
HT bits - simulated
9893
9893
9893
SMALL
LARGE-S
LARGE-N

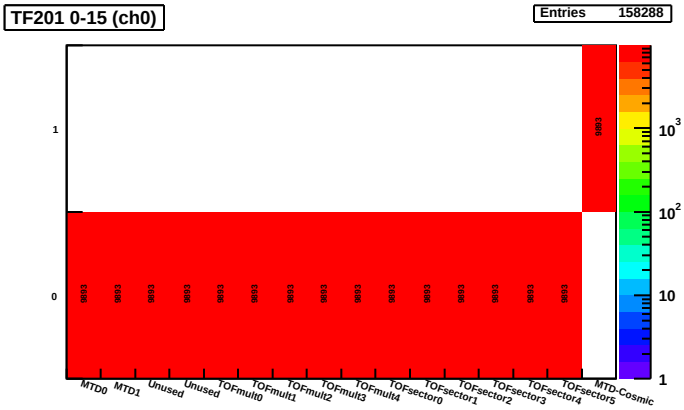

Input to FPD L2 DSM
Entries 59358
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

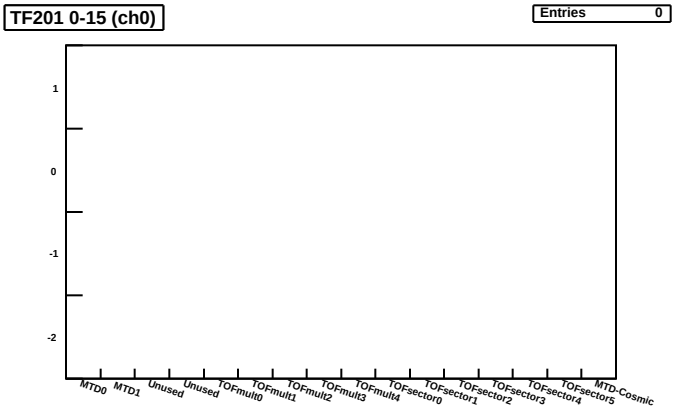

Input to FE001 QT board
Entries 316576
ADC
channel

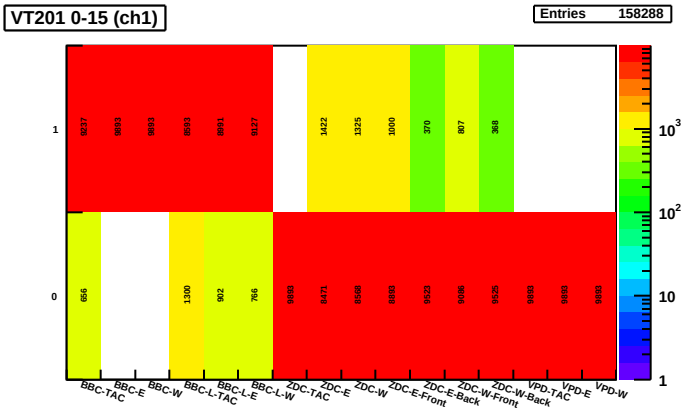

Input to FE002 QT board
Entries 316576
ADC
channel

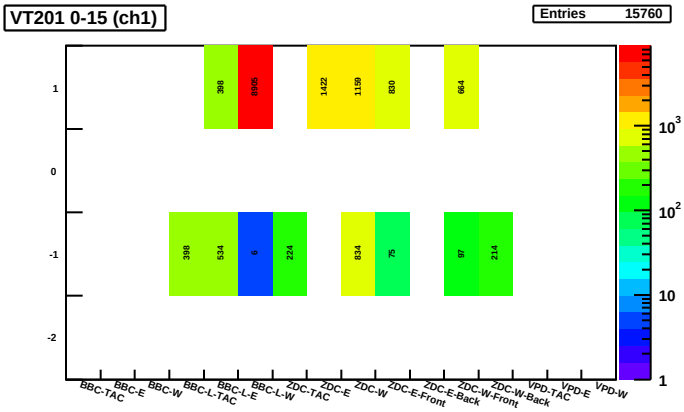

Input to FE003 QT board
Entries 316576
ADC
channel

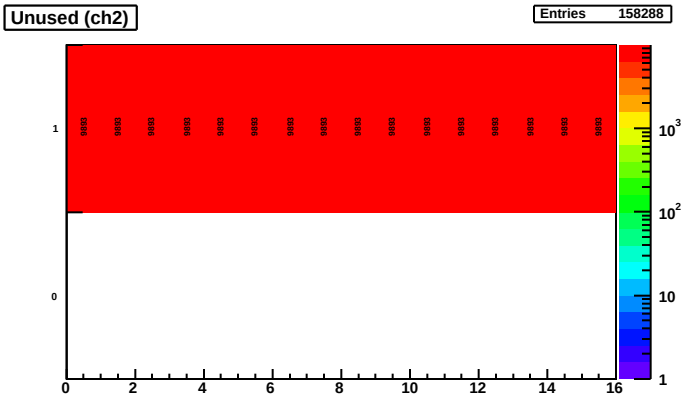

Input to FE004 QT board
Entries 316576
ADC
channel

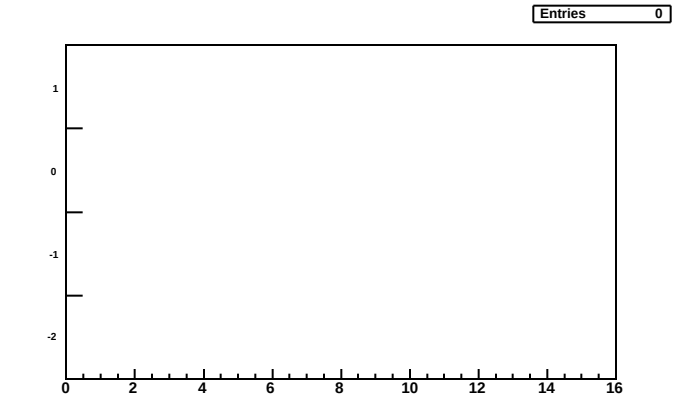

TF201 0-15 (ch0)
Entries 158288
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

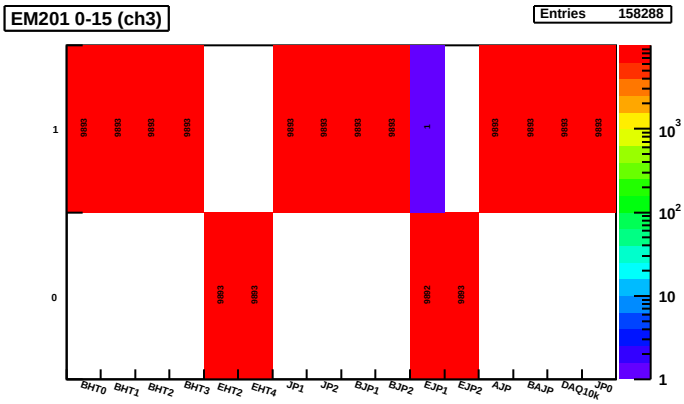

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 158288
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 15760
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 158288


Entries 0


EM201 0-15 (ch3)
Entries 158288
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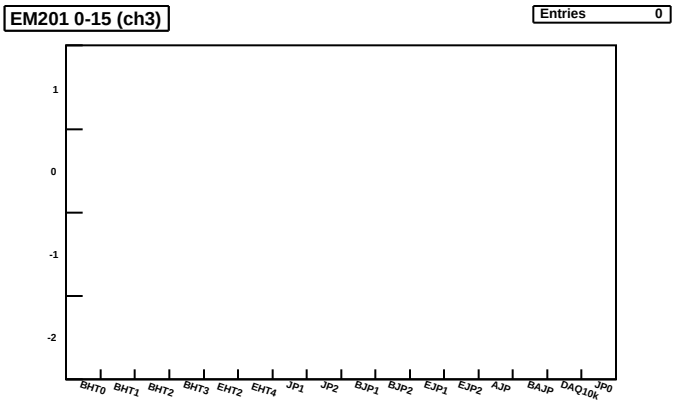
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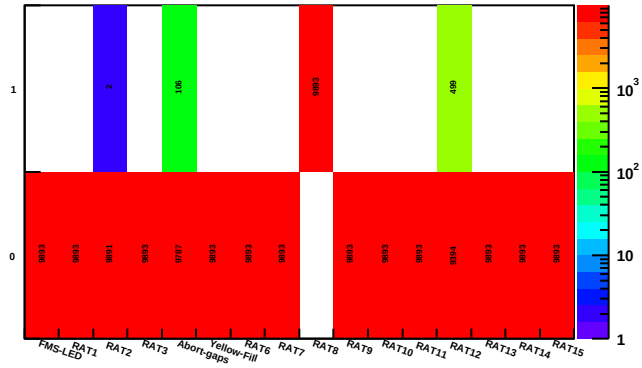
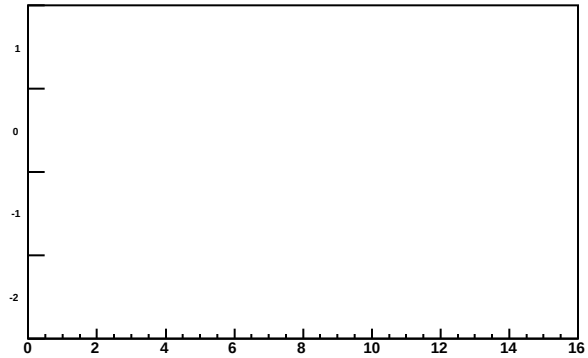
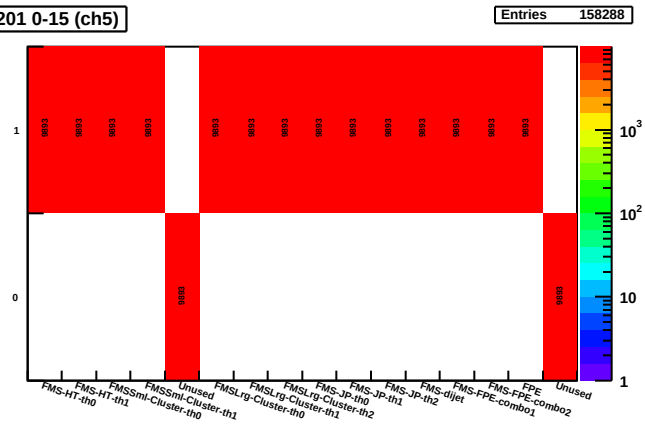
RAT board (ch4)





FP201 0-15 (ch5)



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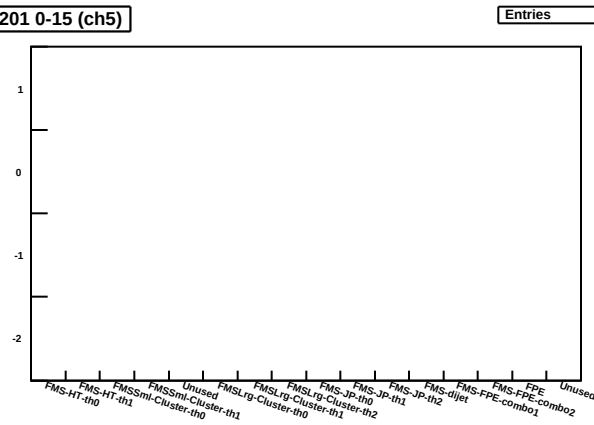
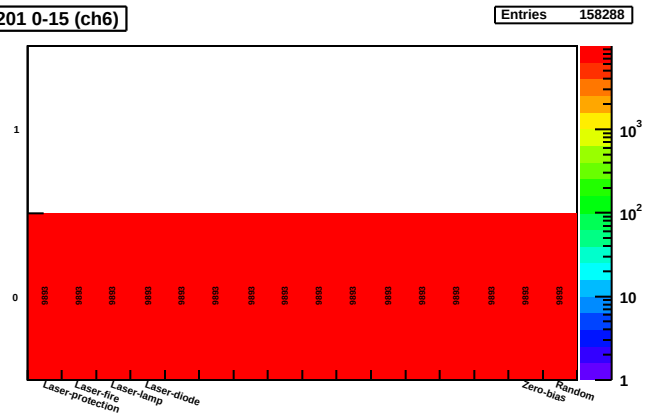
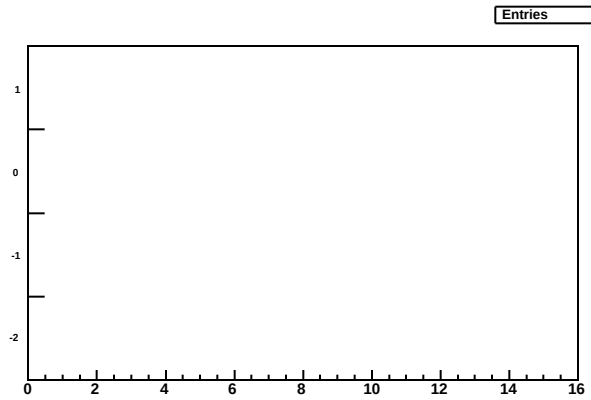
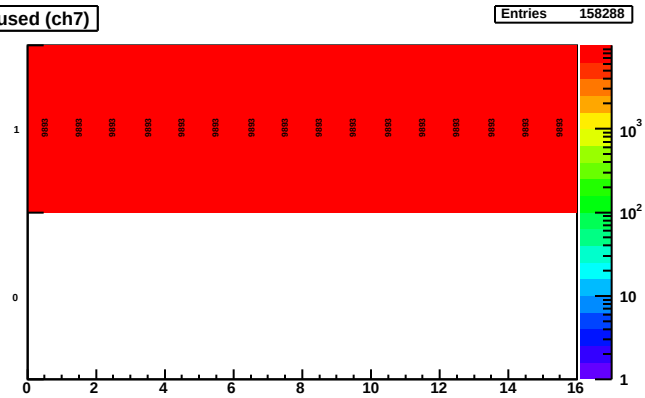
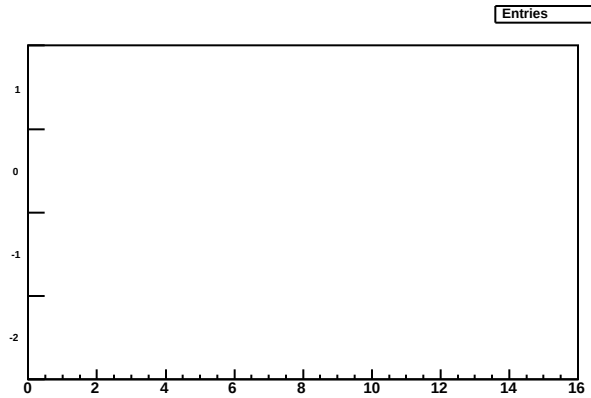


ST201 0-15 (ch6)





Unused (ch7)