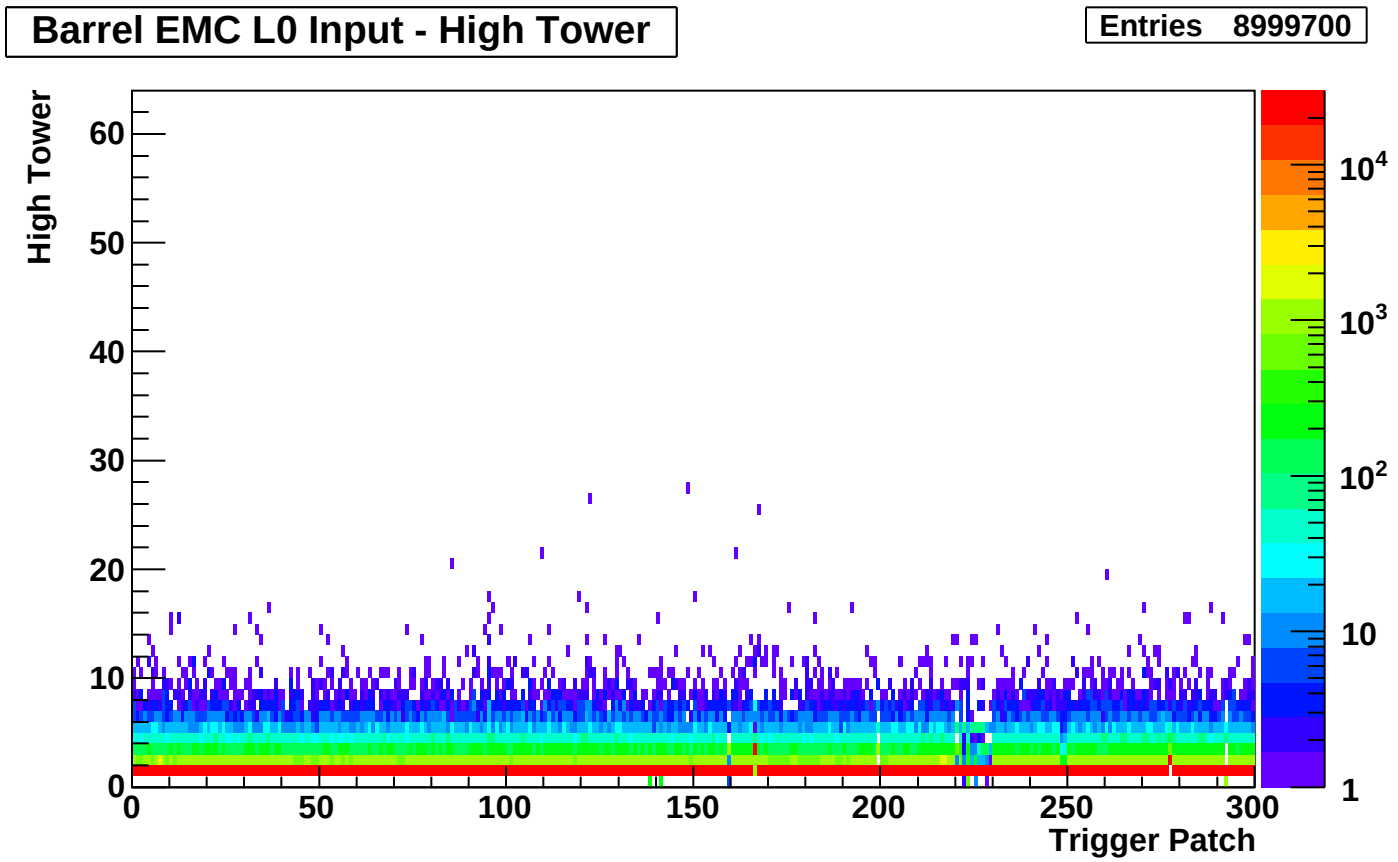
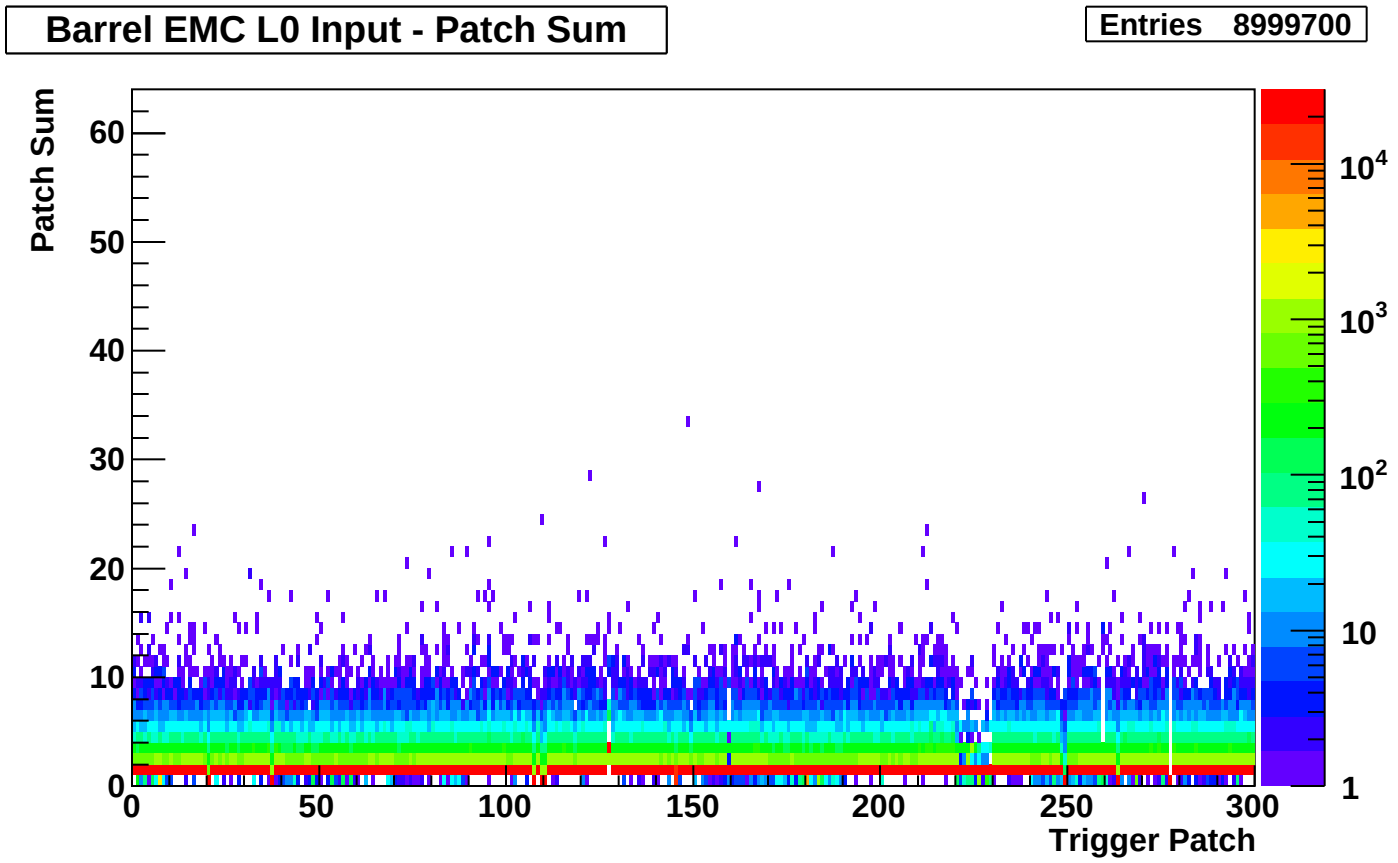
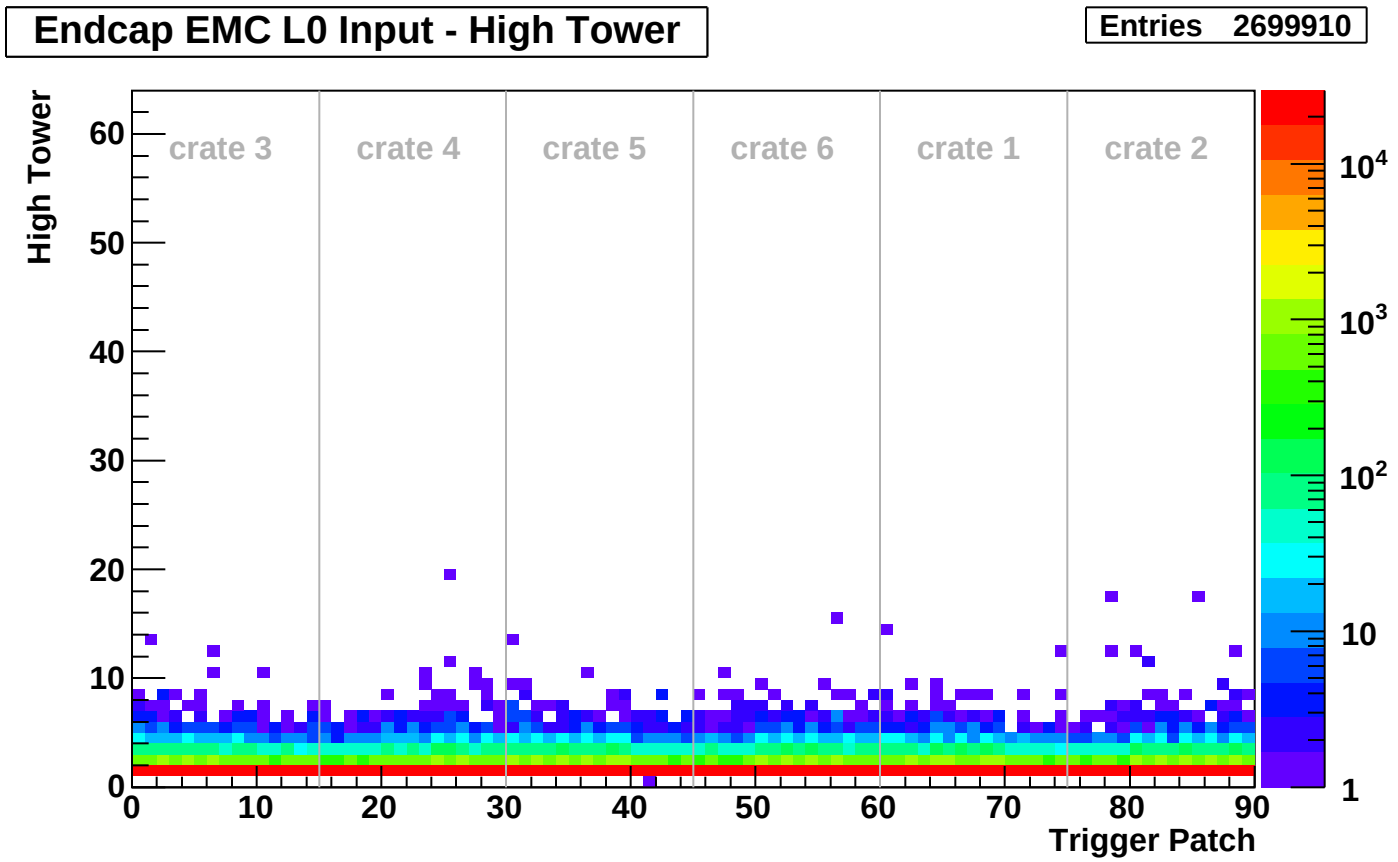
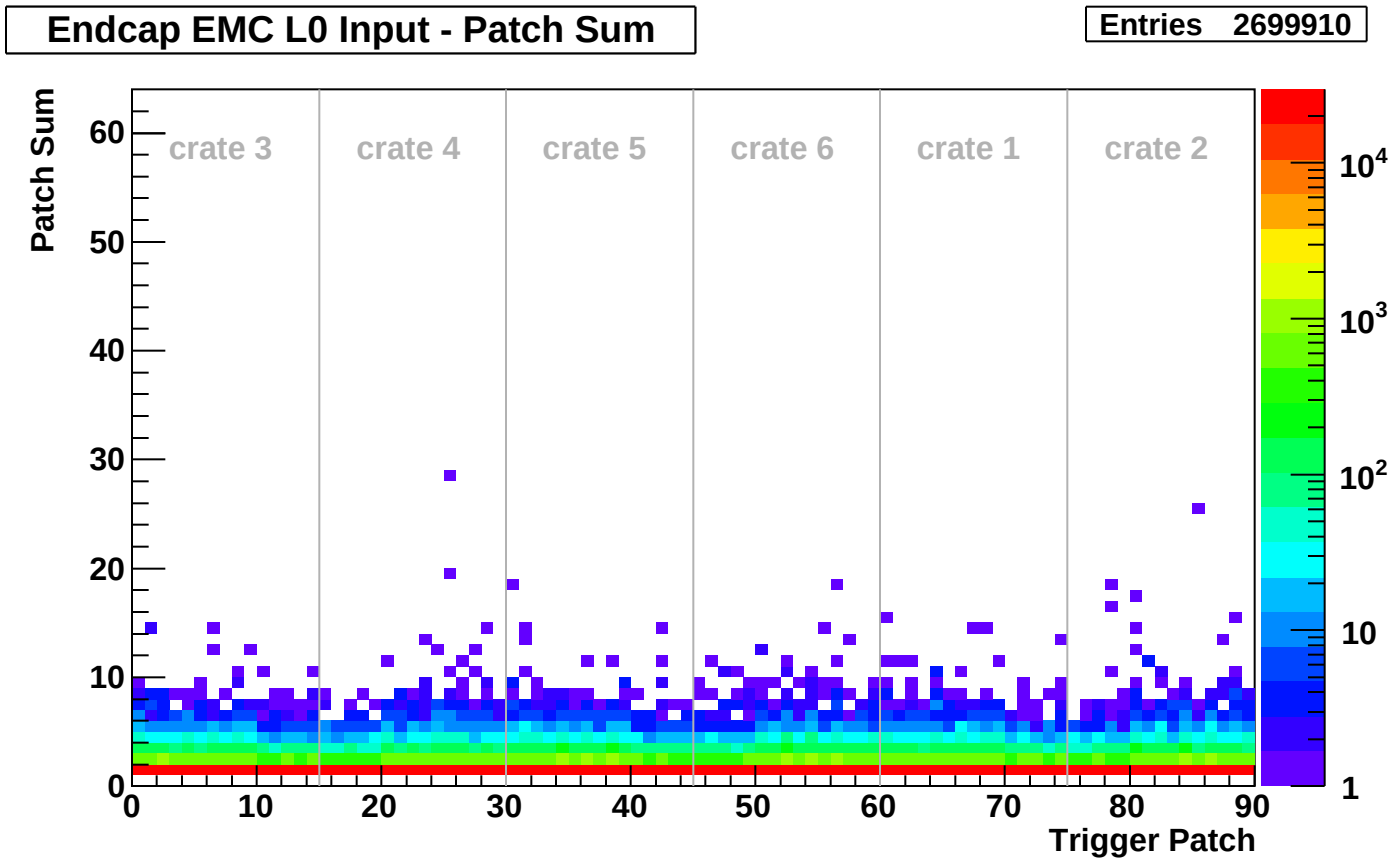
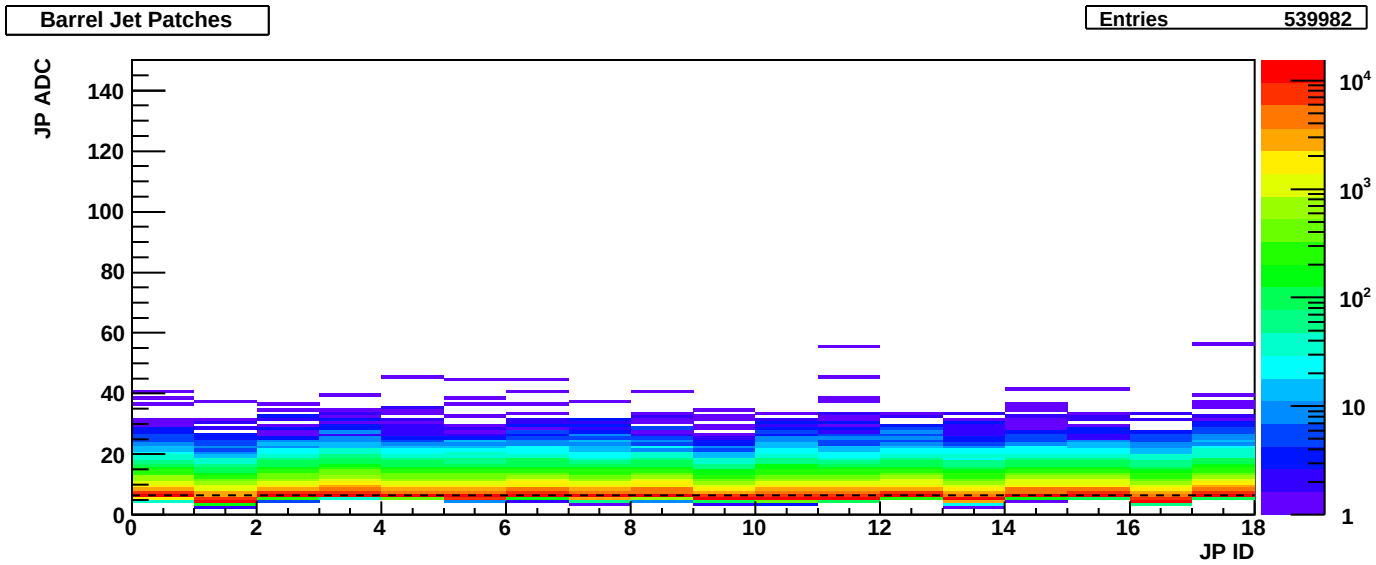
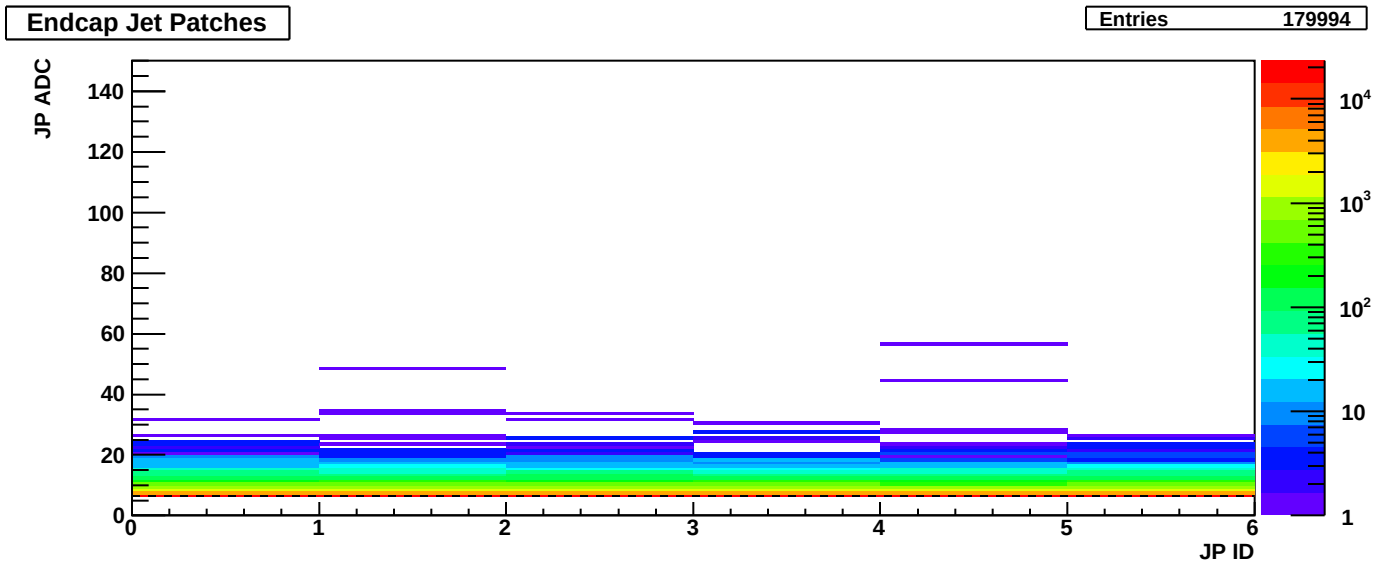

Barrel EMC L0 Input - High Tower
Entries 8999700
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

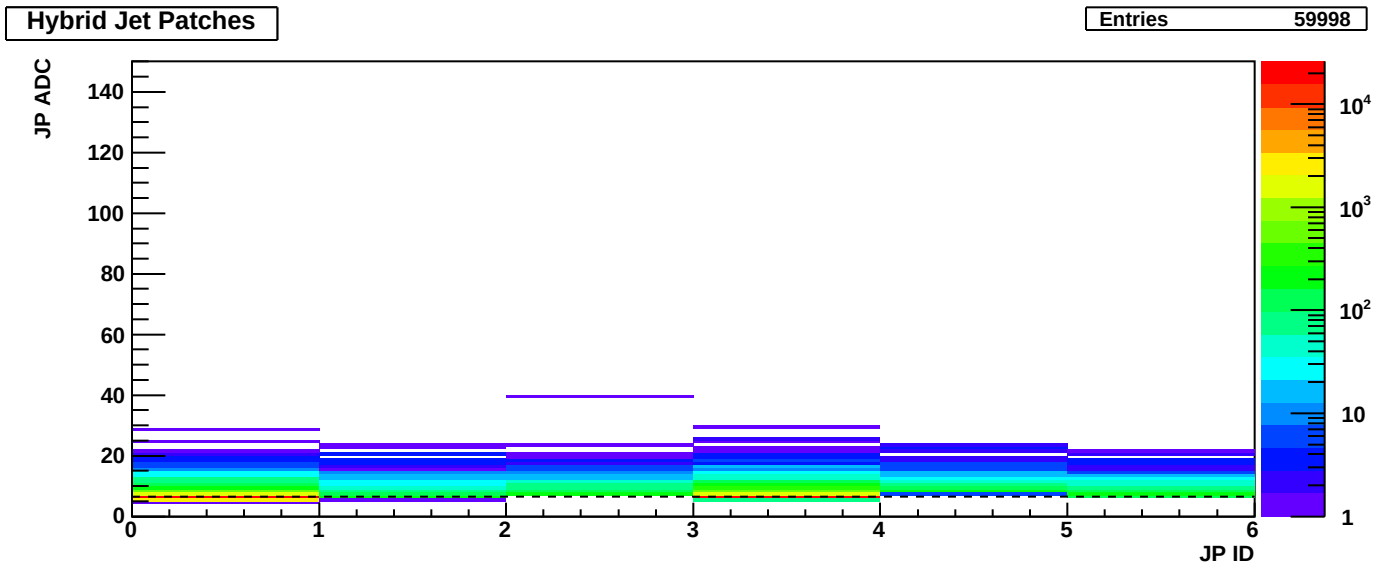

Barrel EMC L0 Input - Patch Sum
Entries 8999700
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

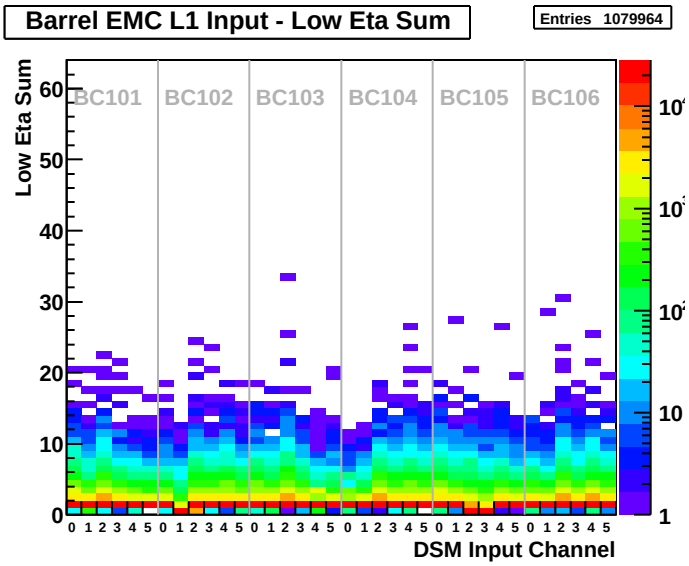

Endcap EMC L0 Input - High Tower
Entries 2699910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

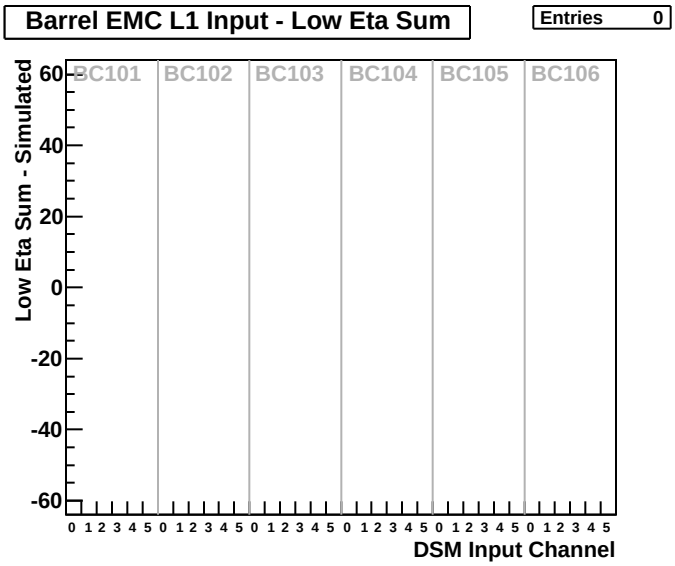

Endcap EMC L0 Input - Patch Sum
Entries 2699910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

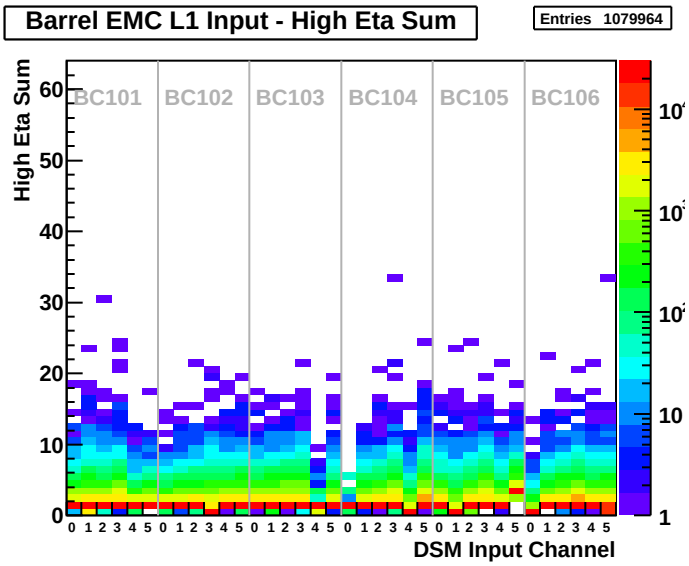

Barrel Jet Patches
Entries 539982
JP ADC
JP ID

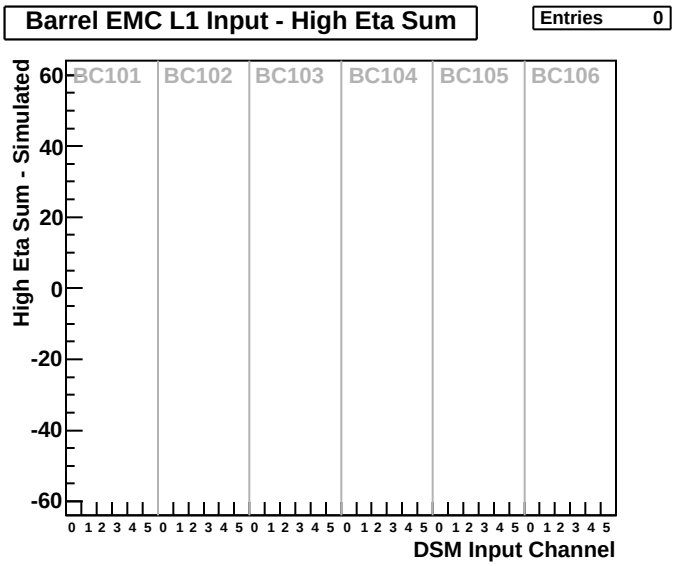

Endcap Jet Patches
Entries 179994
JP ADC
JP ID

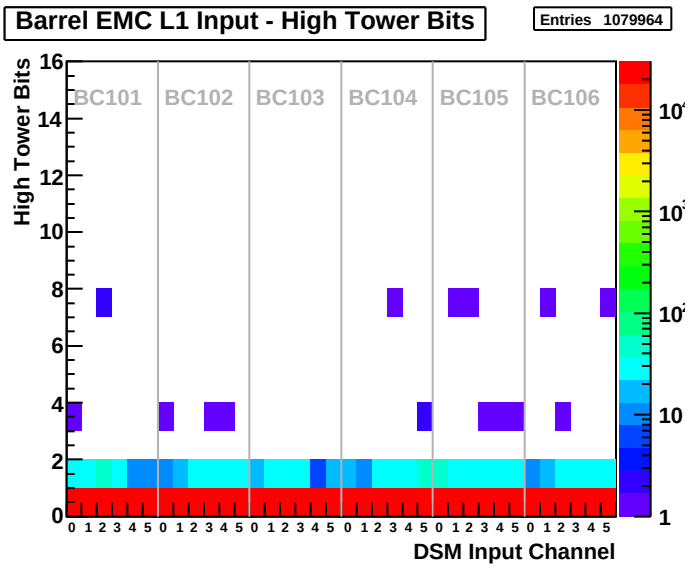

Hybrid Jet Patches
Entries 59998
JP ADC
JP ID

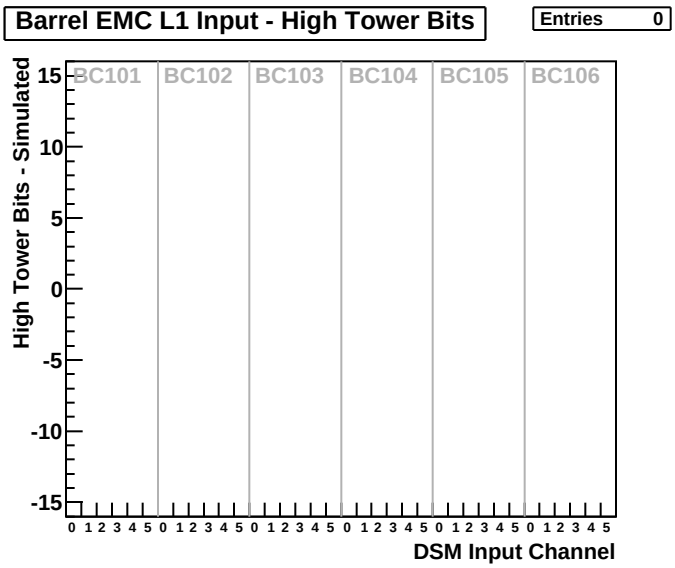

Barrel EMC L1 Input - Low Eta Sum
Entries 1079964
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

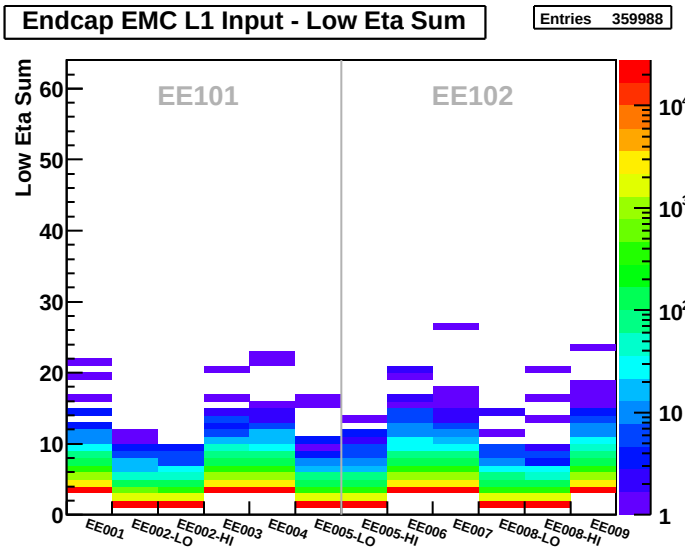

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

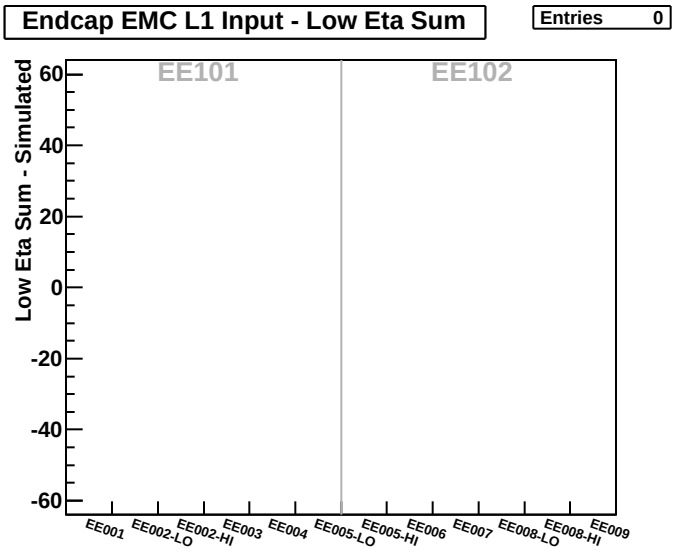

Barrel EMC L1 Input - High Eta Sum
Entries 1079964
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

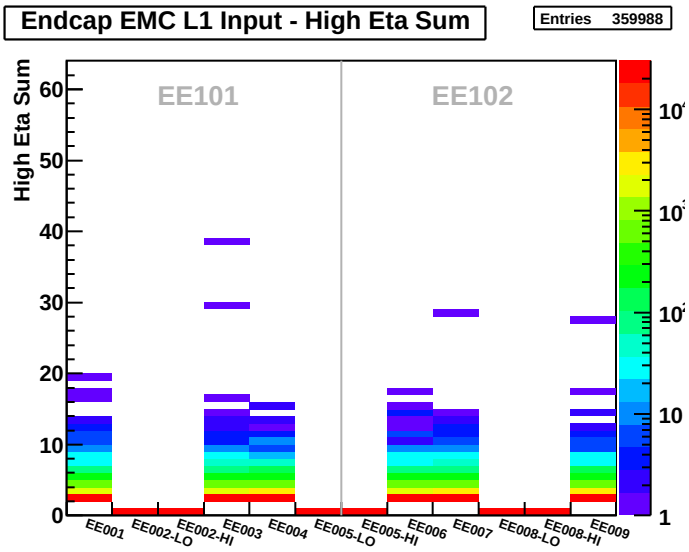

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

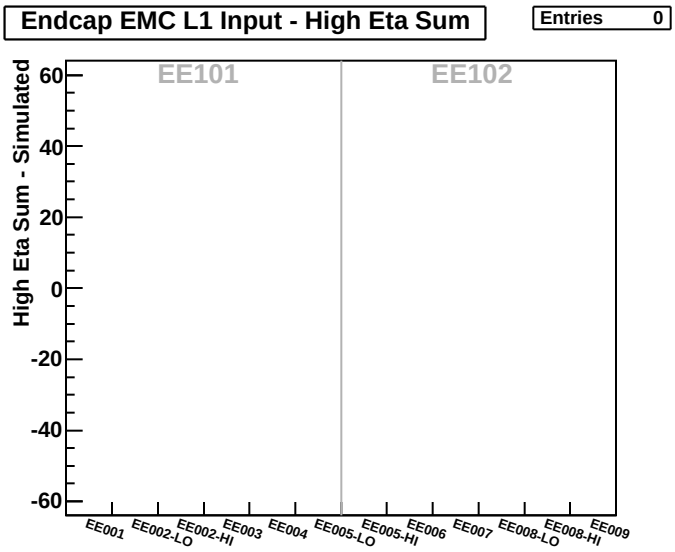

Barrel EMC L1 Input - High Tower Bits
Entries 1079964
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

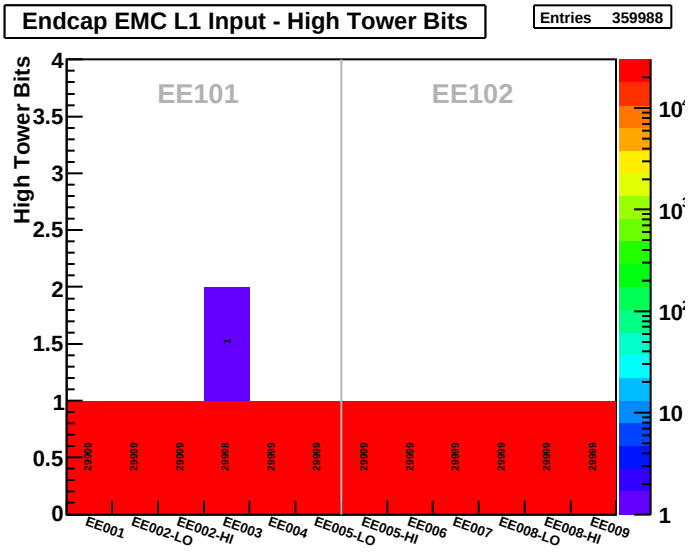

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

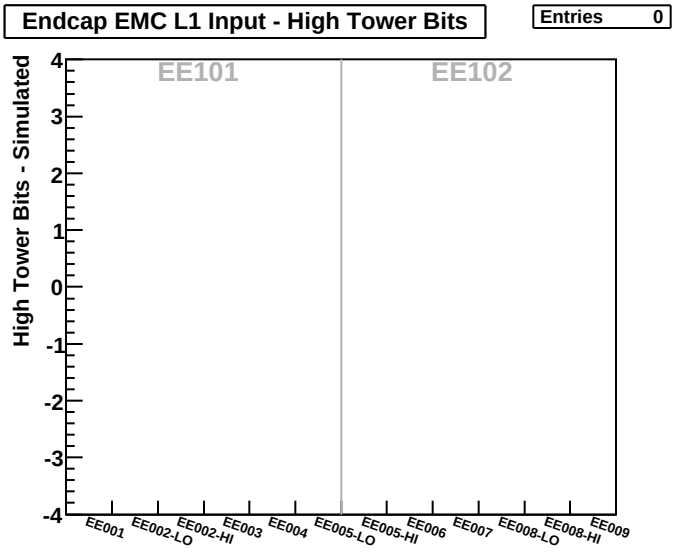

Endcap EMC L1 Input - Low Eta Sum
Entries 359988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

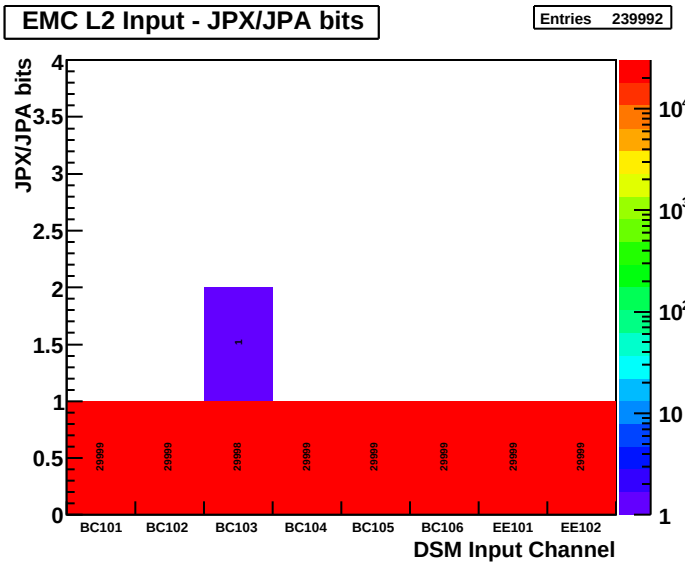

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

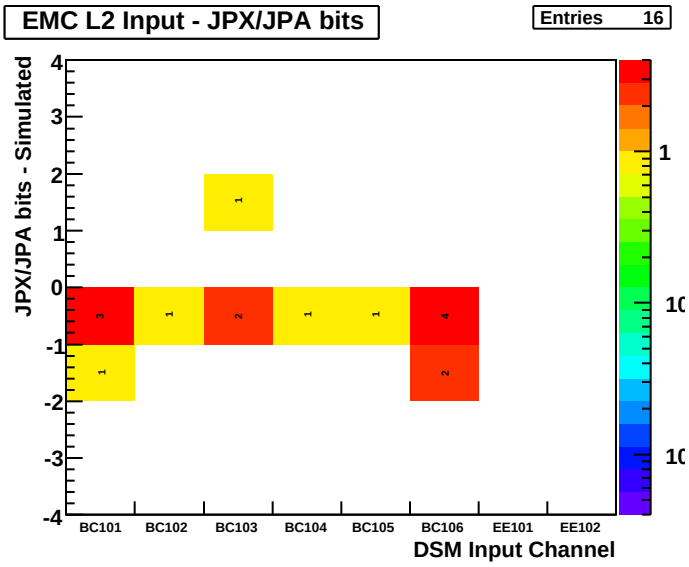

Endcap EMC L1 Input - High Eta Sum
Entries 359988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

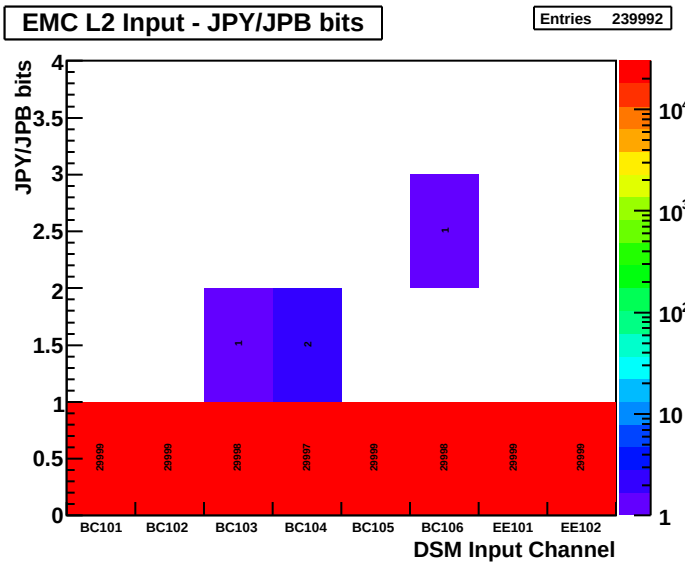

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

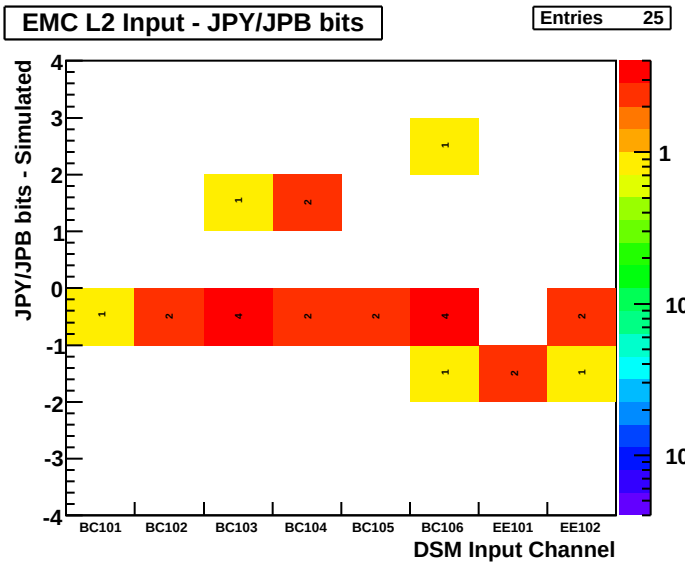

Endcap EMC L1 Input - High Tower Bits
Entries 359988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

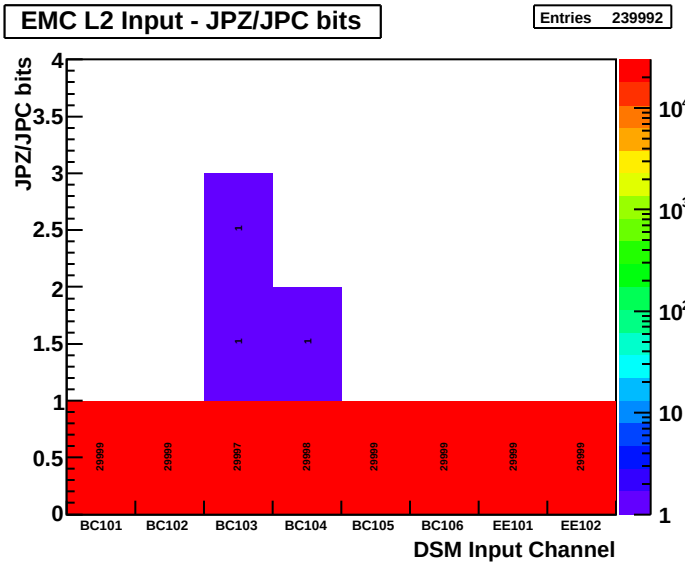

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

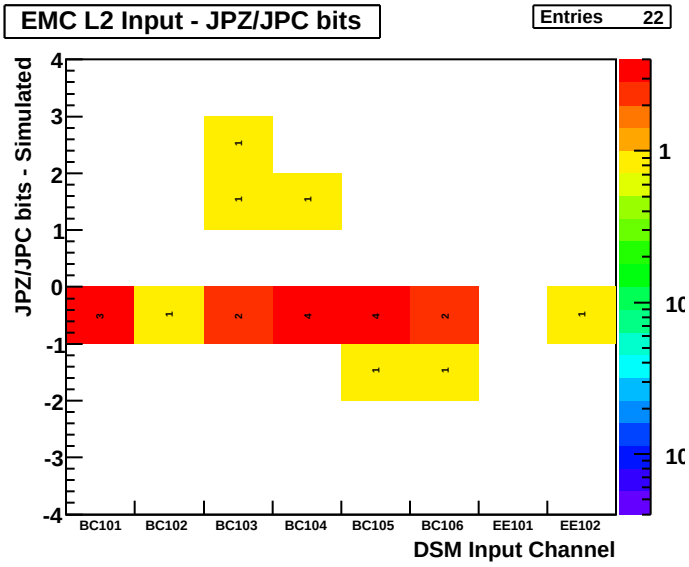

EMC L2 Input - JPX/JPA bits
Entries 239992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

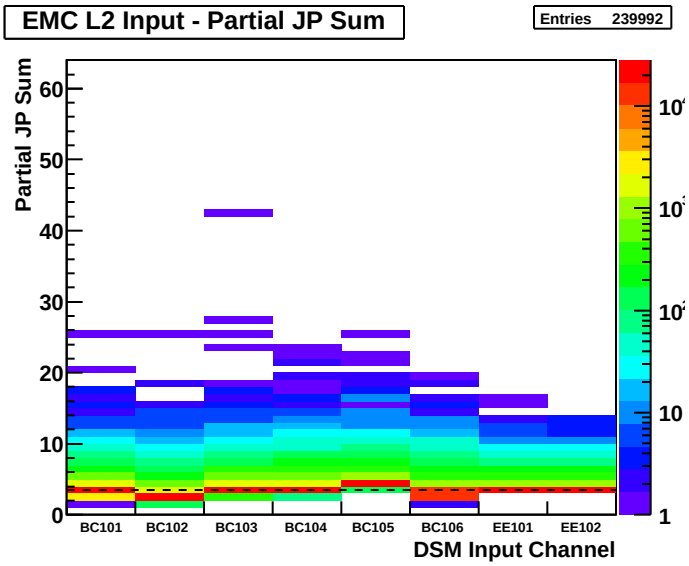

EMC L2 Input - JPX/JPA bits
Entries 16
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

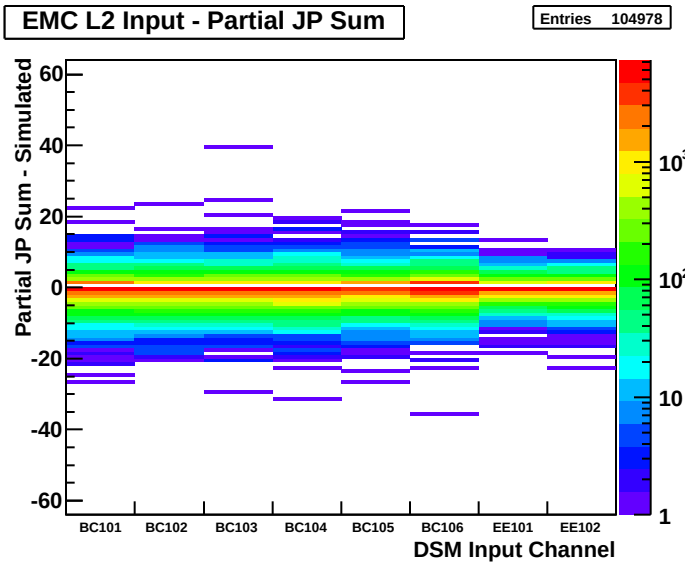

EMC L2 Input - JPY/JPB bits
Entries 239992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

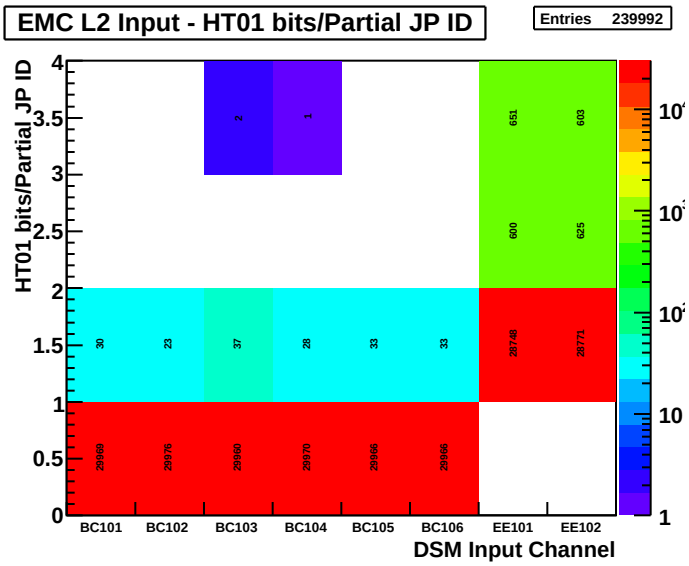

EMC L2 Input - JPY/JPB bits
Entries 25
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

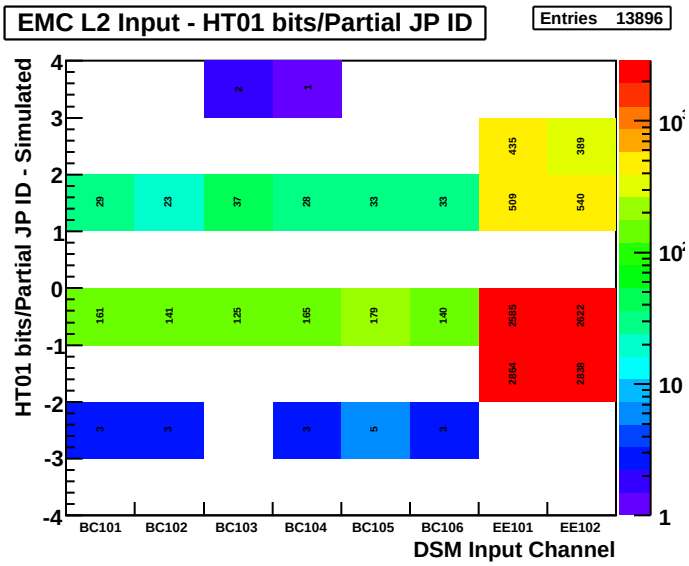

EMC L2 Input - JPZ/JPC bits
Entries 239992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

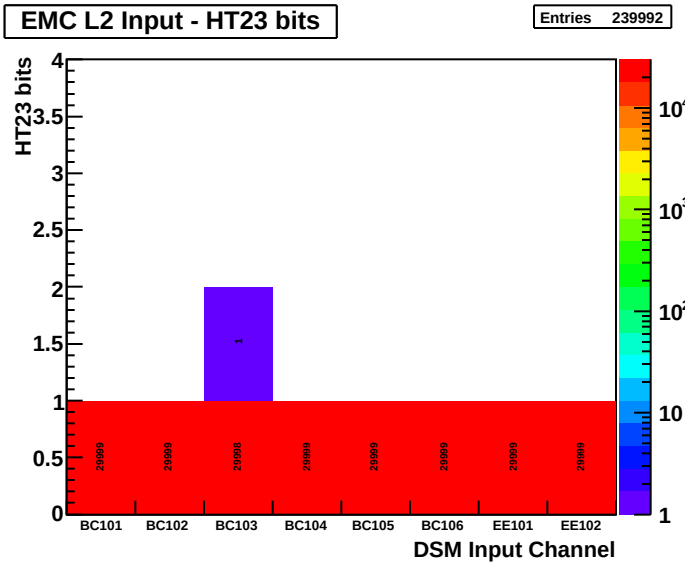

EMC L2 Input - JPZ/JPC bits
Entries 22
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

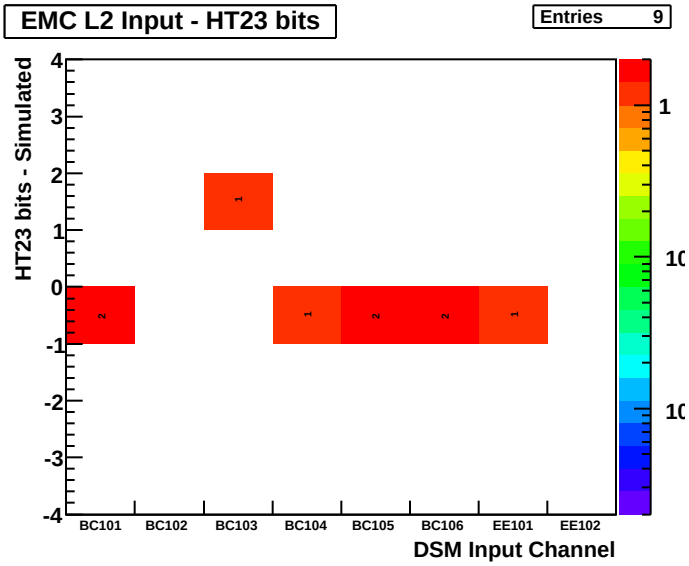

EMC L2 Input - Partial JP Sum
Entries 239992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

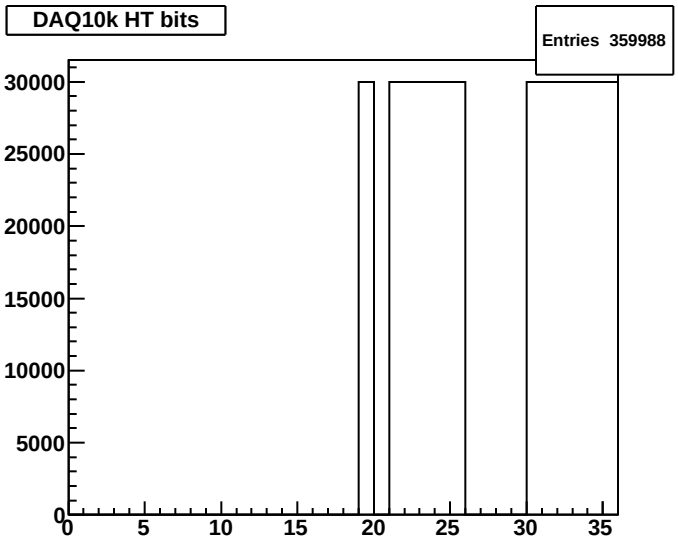

EMC L2 Input - Partial JP Sum
Entries 104978
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

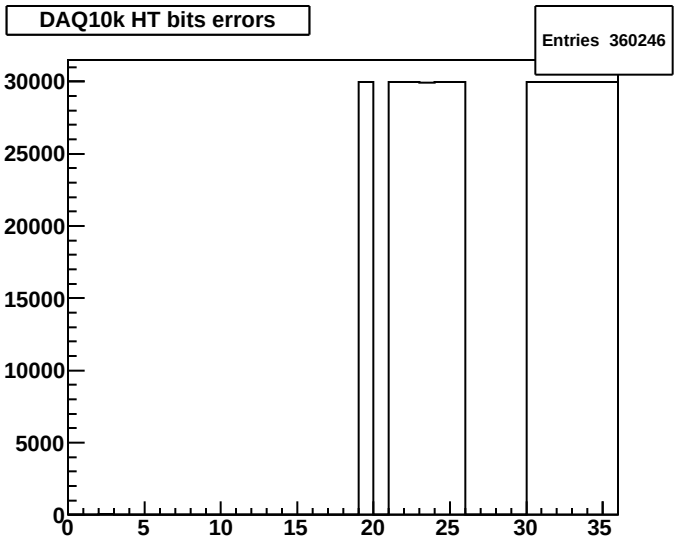

EMC L2 Input - HT01 bits/Partial JP ID
Entries 239992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

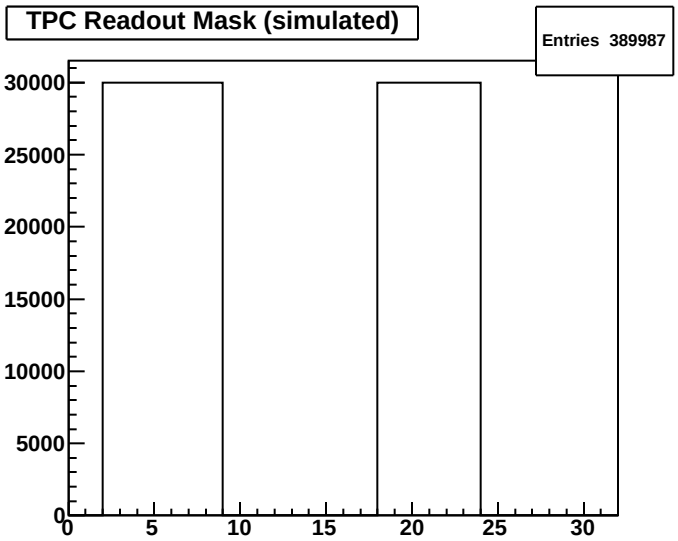

EMC L2 Input - HT01 bits/Partial JP ID
Entries 13896
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

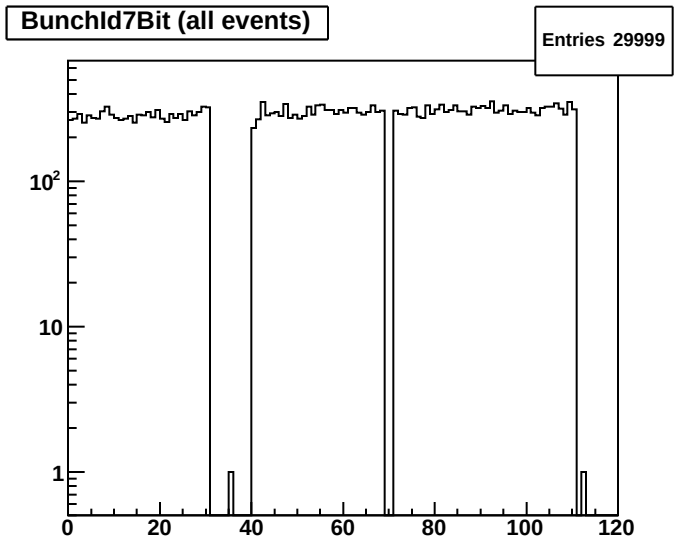

EMC L2 Input - HT23 bits
Entries 239992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

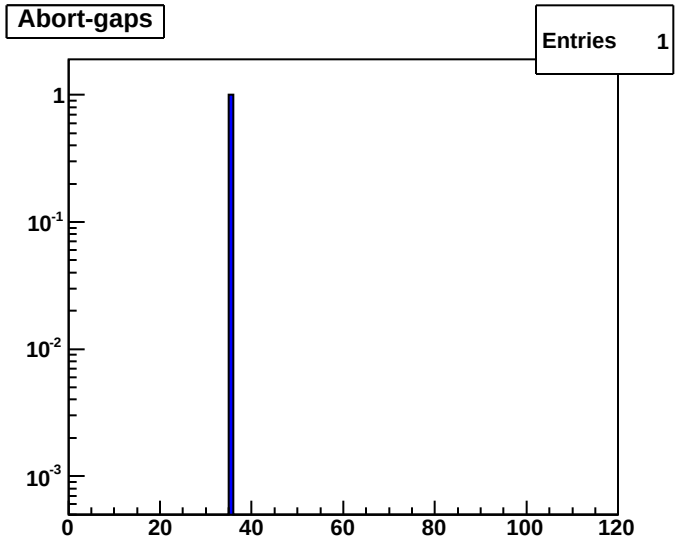

EMC L2 Input - HT23 bits
Entries 9
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

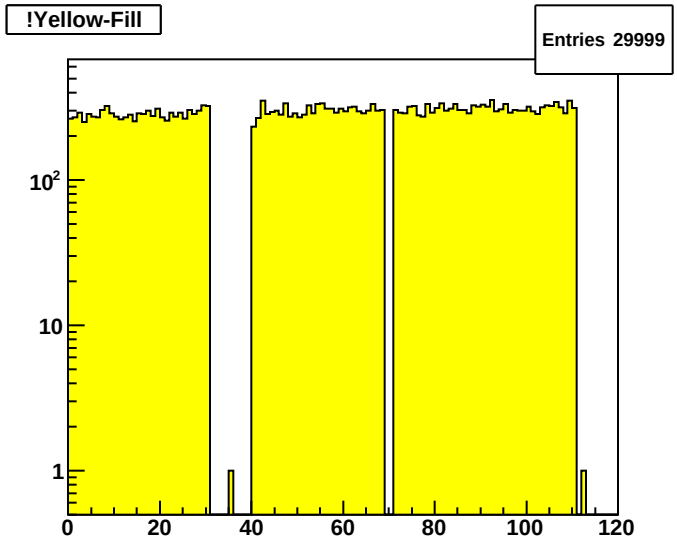

DAQ10k HT bits
Entries 359988
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

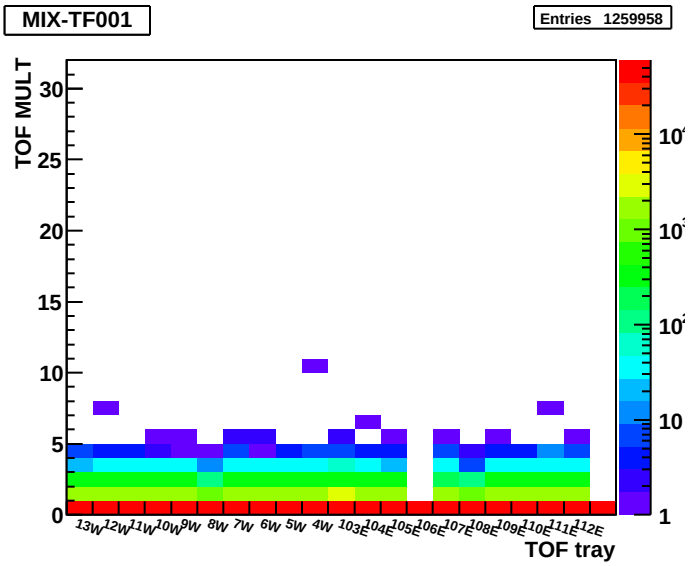

DAQ10k HT bits errors
Entries 360246
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

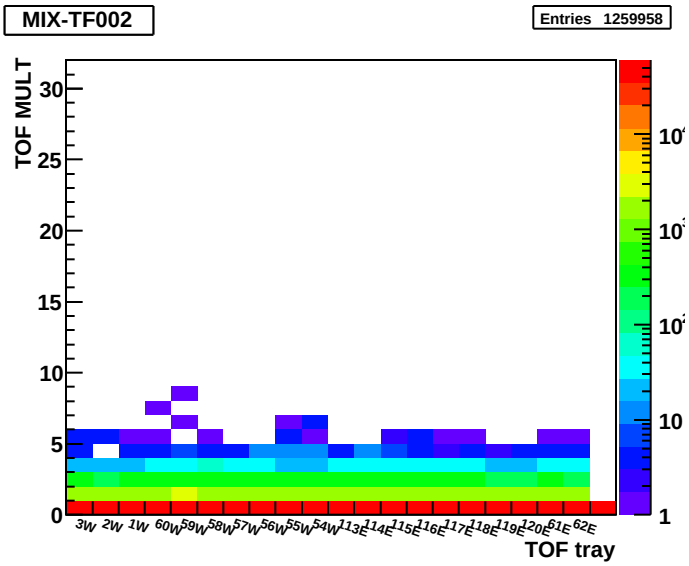

TPC Readout Mask (simulated)
Entries 389987
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

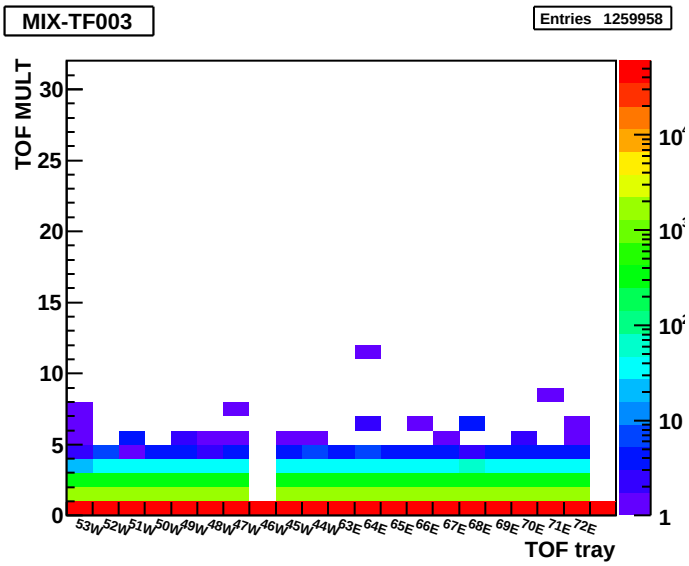

BunchId7Bit (all events)
Entries 29999
10^2
10
1
0 20 40 60 80 100 120

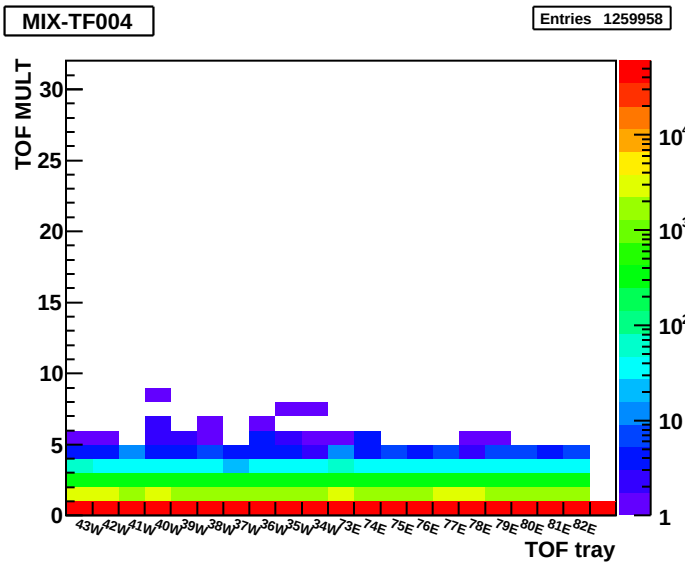

Abort-gaps
Entries 1
1
10^{-1}
10^{-2}
10^{-3}
0 20 40 60 80 100 120

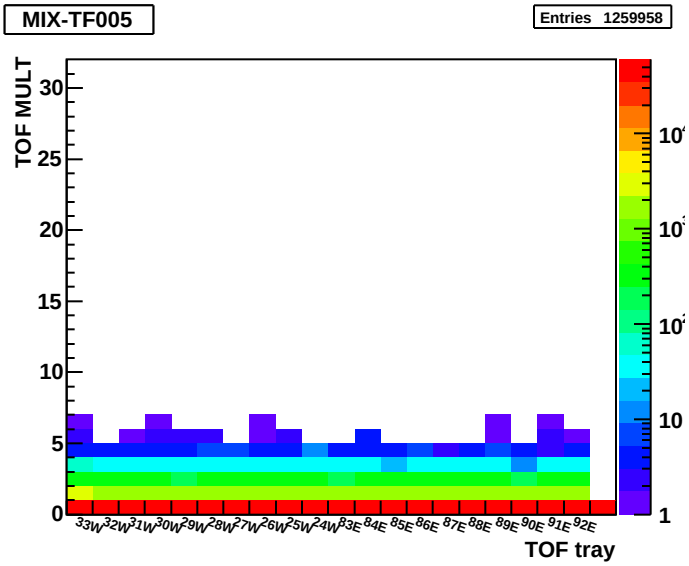

!Yellow-Fill
Entries 29999
10^2
10
1
0 20 40 60 80 100 120

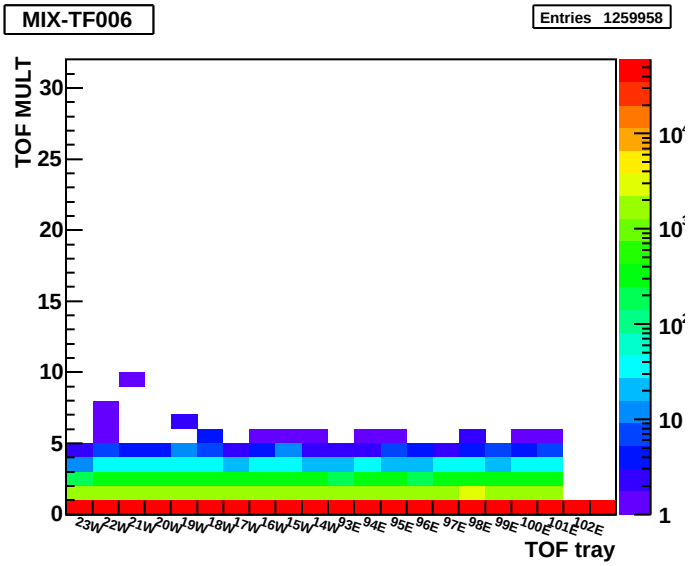

MIX-TF001
Entries 1259958
TOF MULT
TOF tray

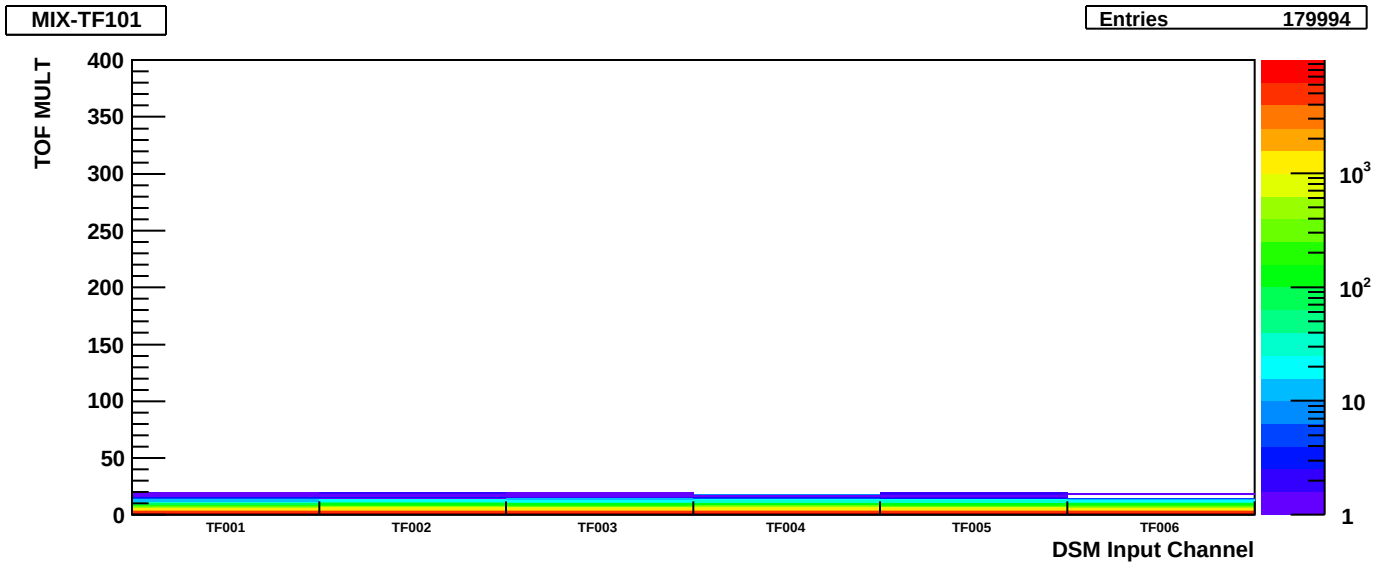

MIX-TF002
Entries 1259958
TOF MULT
TOF tray

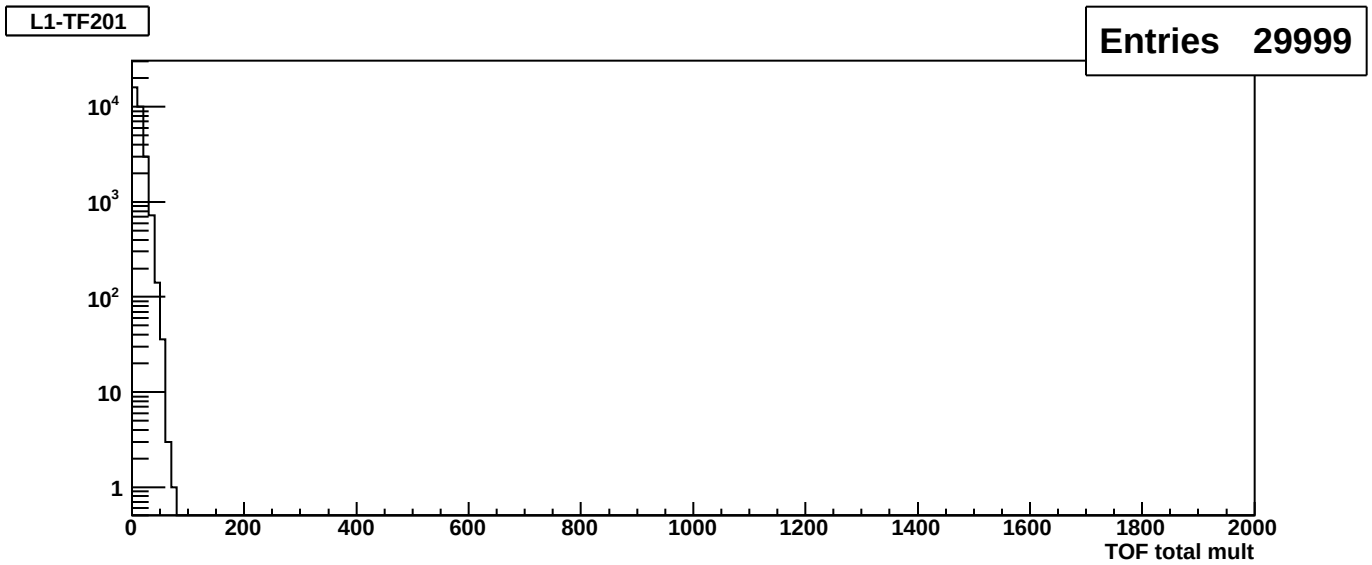

MIX-TF003
Entries 1259958
TOF MULT
TOF tray

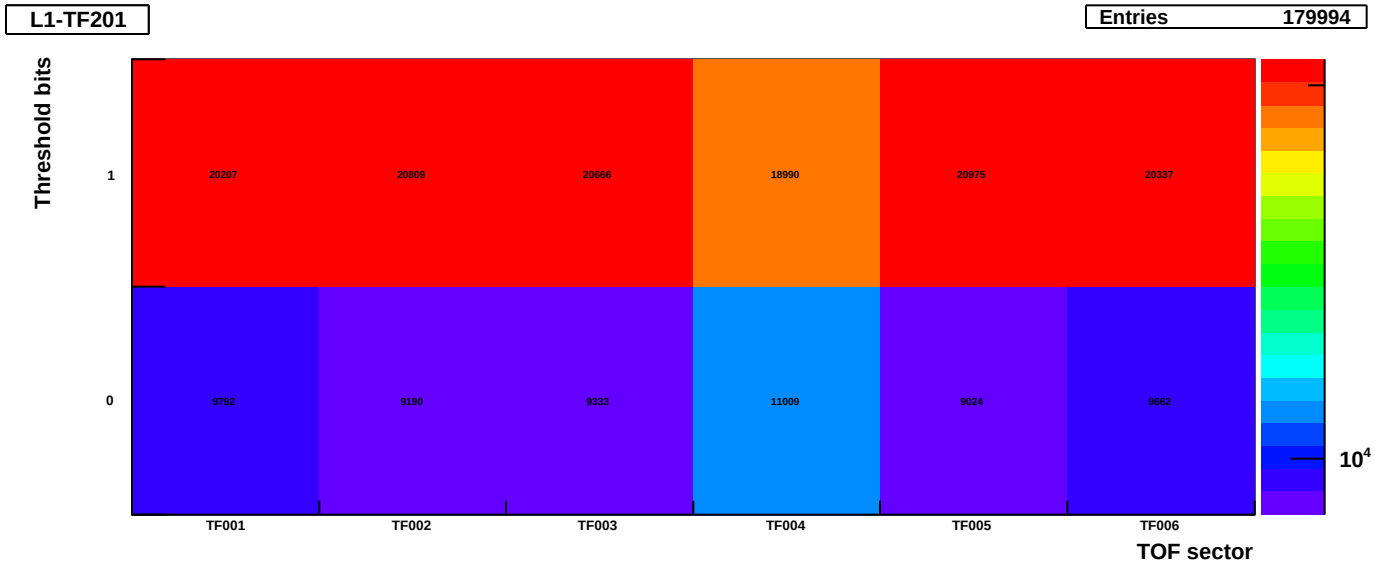

MIX-TF004
Entries 1259958
TOF MULT
TOF tray

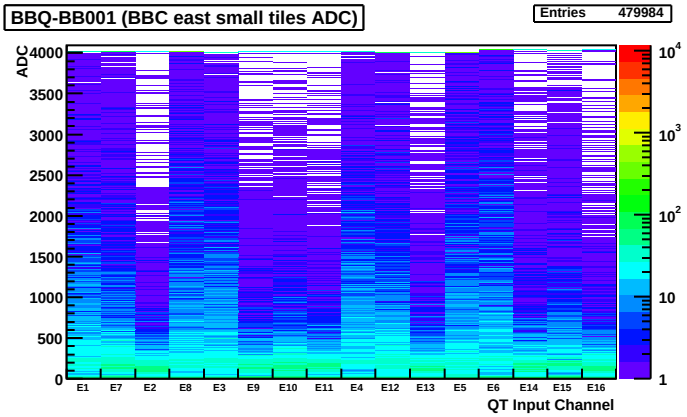

MIX-TF005
Entries 1259958
TOF MULT
TOF tray

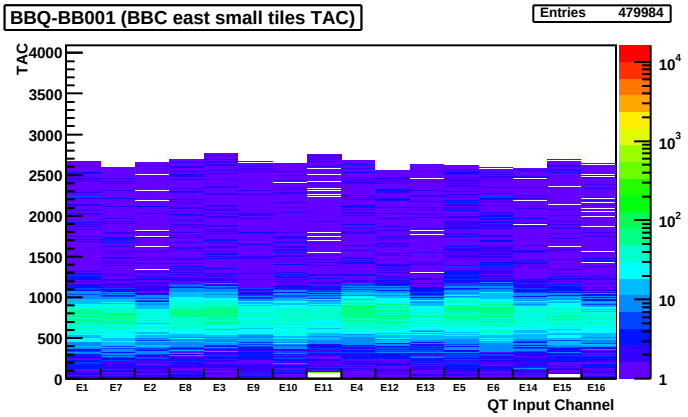

MIX-TF006
Entries 1259958
TOF MULT
TOF tray

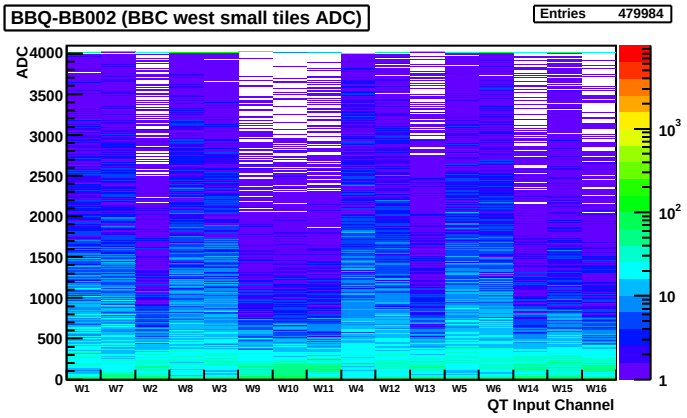

MIX-TF101
Entries 179994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

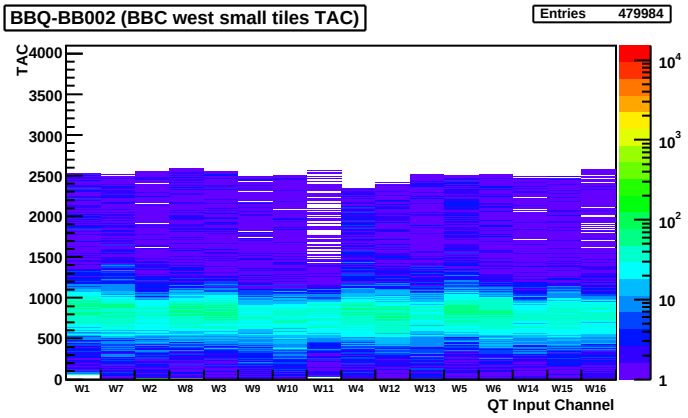

L1-TF201
Entries 29999
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

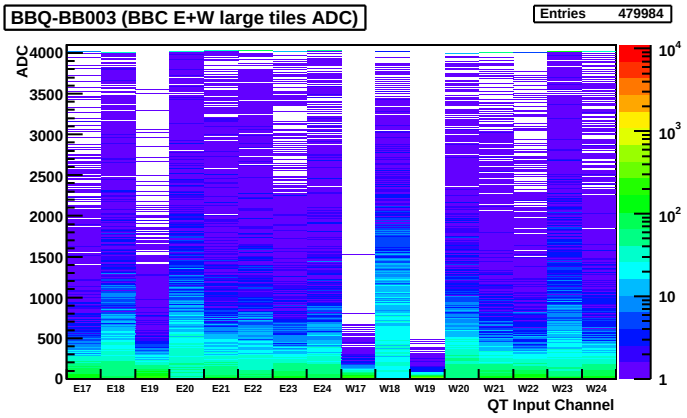

L1-TF201
Entries 179994
Threshold bits
1
0
20207
20809
20666
18990
20975
20337
9792
9190
9333
11009
9024
9662
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

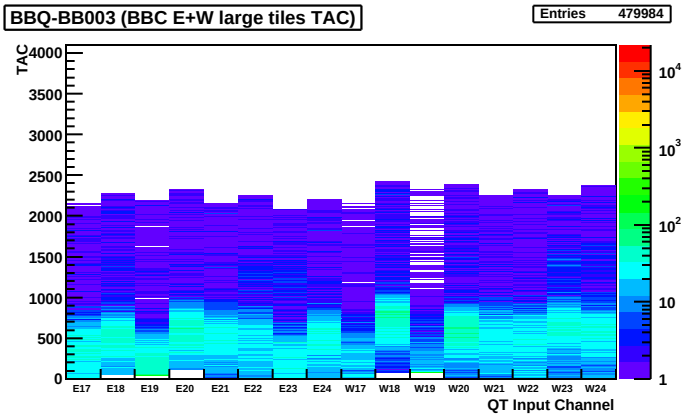

BBQ-BB001 (BBC east small tiles ADC)
Entries 479984
ADC
QT Input Channel

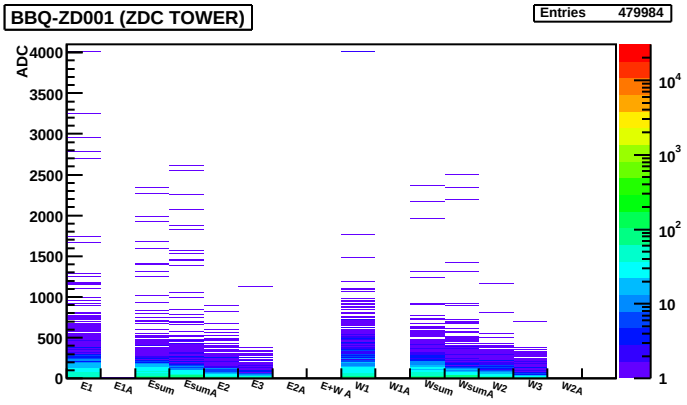

BBQ-BB001 (BBC east small tiles TAC)
Entries 479984
TAC
QT Input Channel

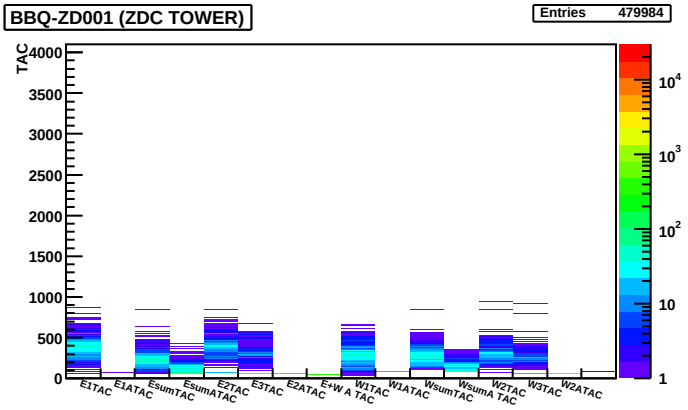

BBQ-BB002 (BBC west small tiles ADC)
Entries 479984
ADC
QT Input Channel

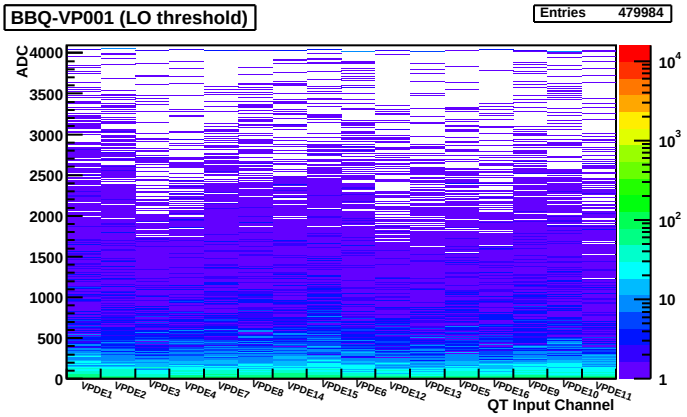

BBQ-BB002 (BBC west small tiles TAC)
Entries 479984
TAC
QT Input Channel

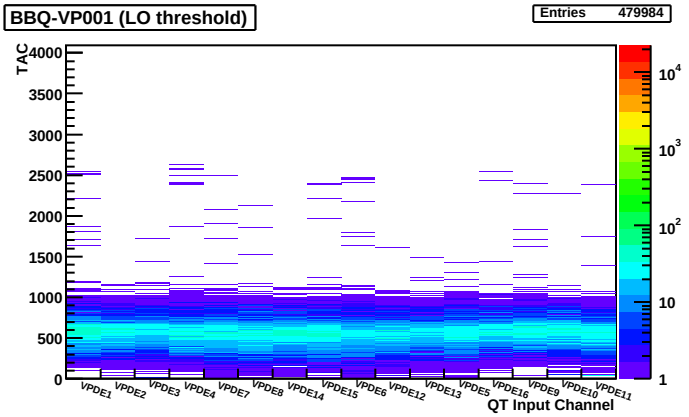

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 479984
ADC
QT Input Channel

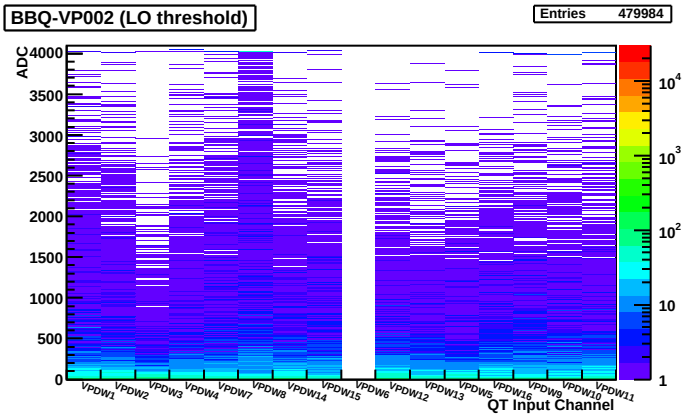

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 479984
TAC
QT Input Channel

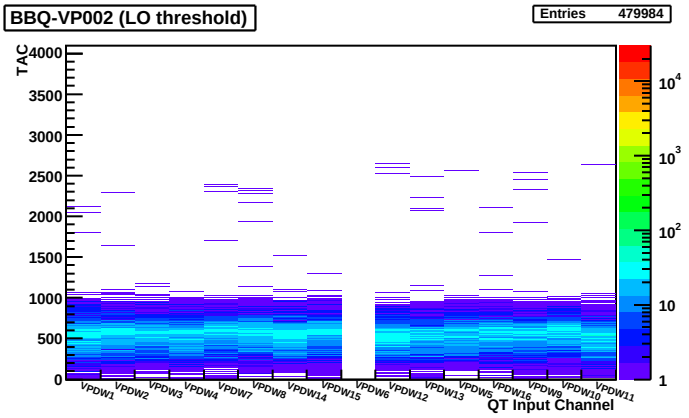

BBQ-ZD001 (ZDC TOWER)
Entries 479984
ADC

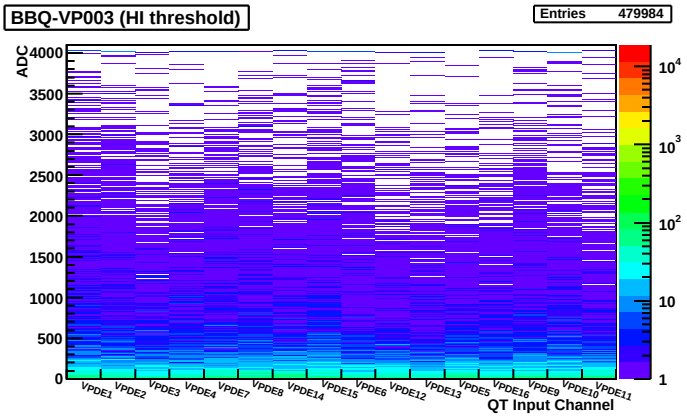

BBQ-ZD001 (ZDC TOWER)
Entries 479984
TAC

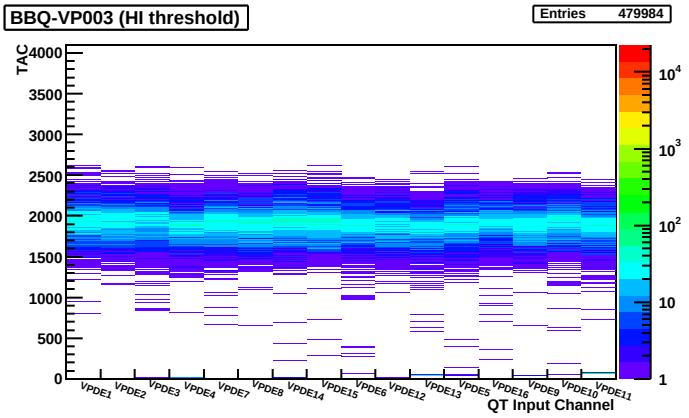

BBQ-VP001 (LO threshold)
Entries 479984
ADC
QT Input Channel

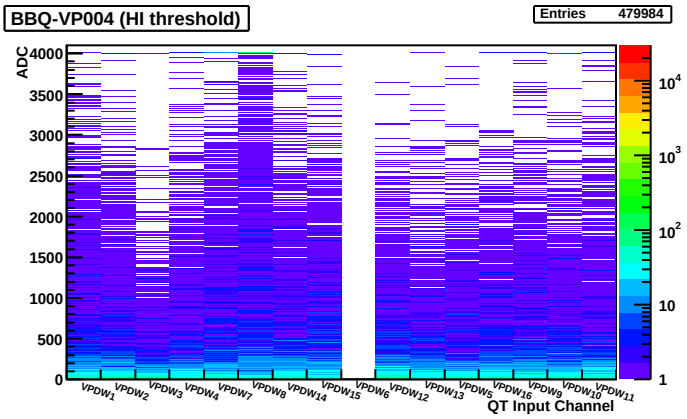

BBQ-VP001 (LO threshold)
Entries 479984
TAC
QT Input Channel

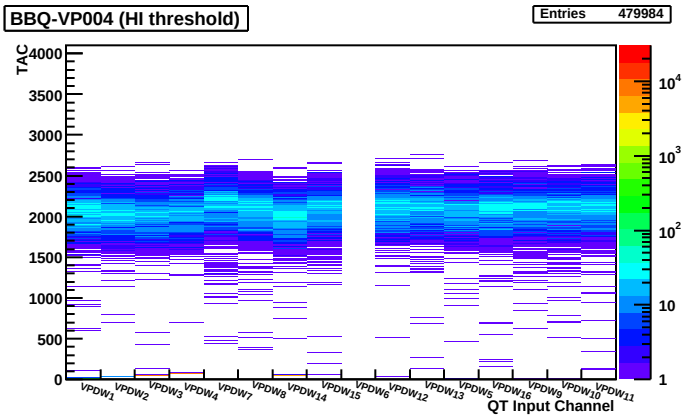

BBQ-VP002 (LO threshold)
Entries 479984
ADC
QT Input Channel

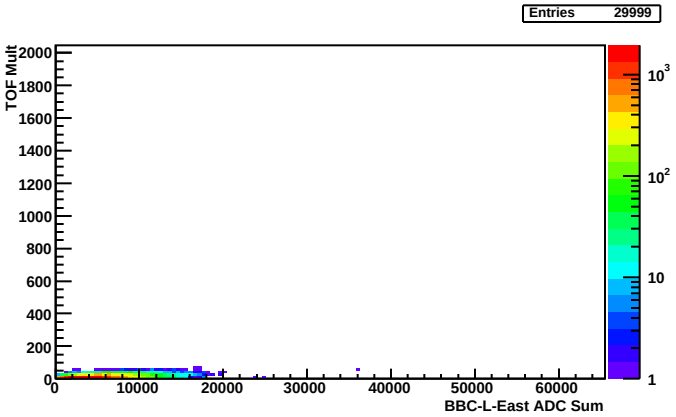

BBQ-VP002 (LO threshold)
Entries 479984
TAC
QT Input Channel

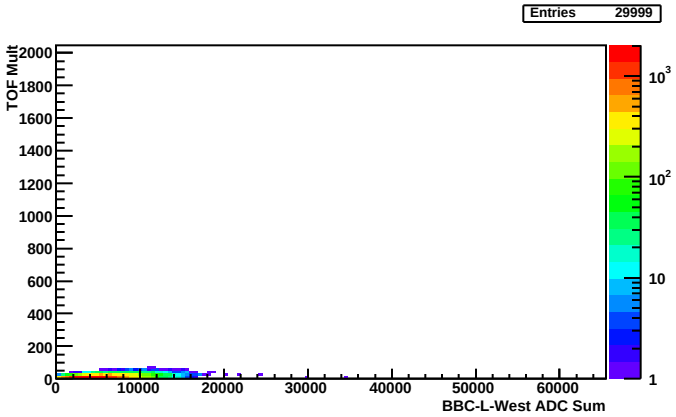

BBQ-VP003 (HI threshold)
Entries 479984
ADC
QT Input Channel

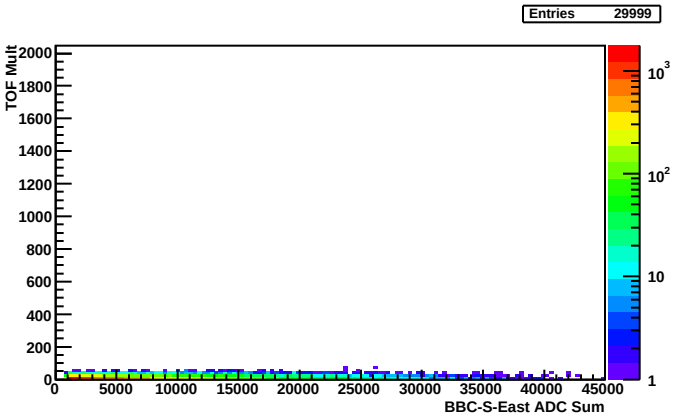

BBQ-VP003 (HI threshold)
Entries 479984
TAC
QT Input Channel

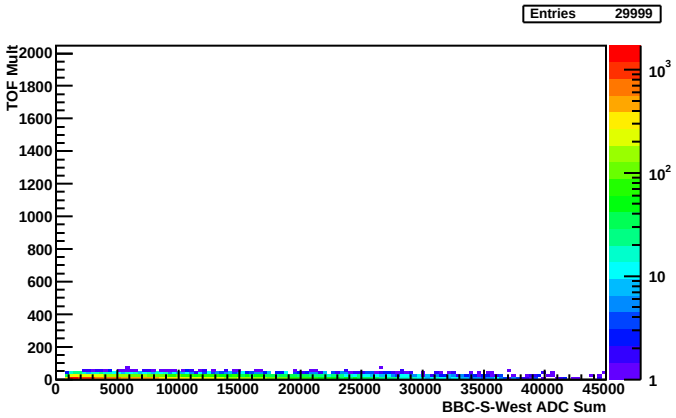

BBQ-VP004 (HI threshold)
Entries 479984
ADC
QT Input Channel

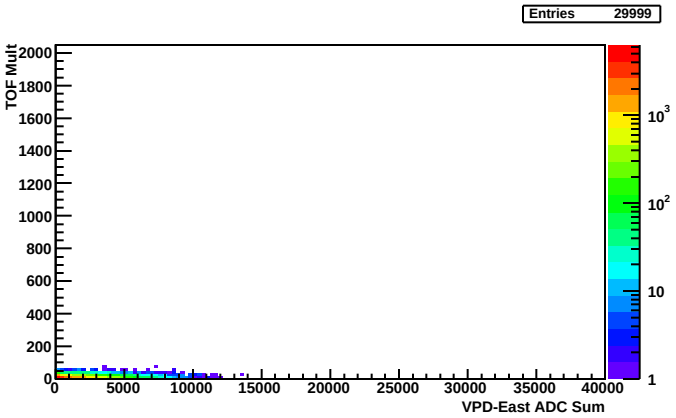

BBQ-VP004 (HI threshold)
Entries 479984
TAC
QT Input Channel

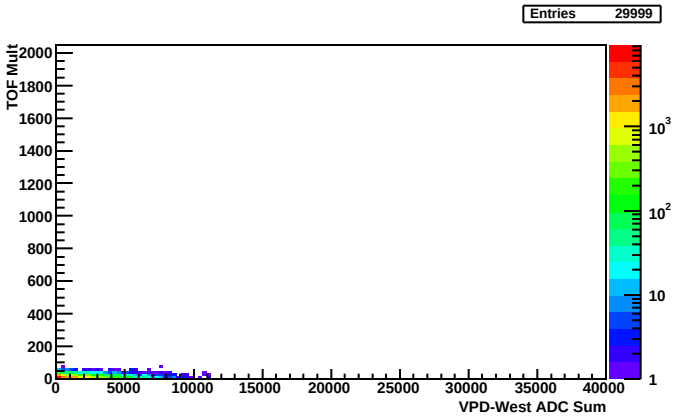

Entries 29999
TOF Mult
BBC-L-East ADC Sum

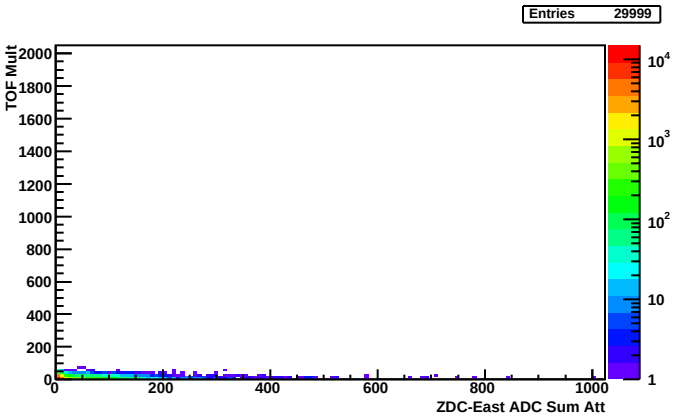

Entries 29999
TOF Mult
BBC-L-West ADC Sum

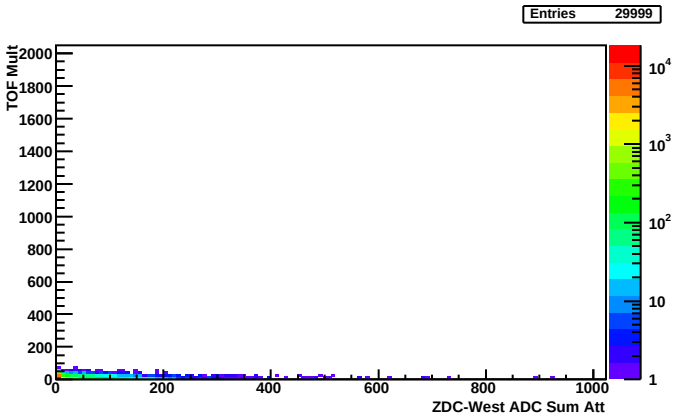

Entries 29999
TOF Mult
BBC-S-East ADC Sum

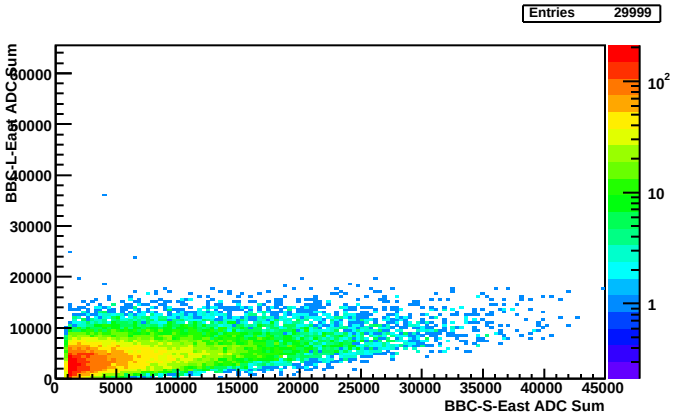

Entries 29999
TOF Mult
BBC-S-West ADC Sum

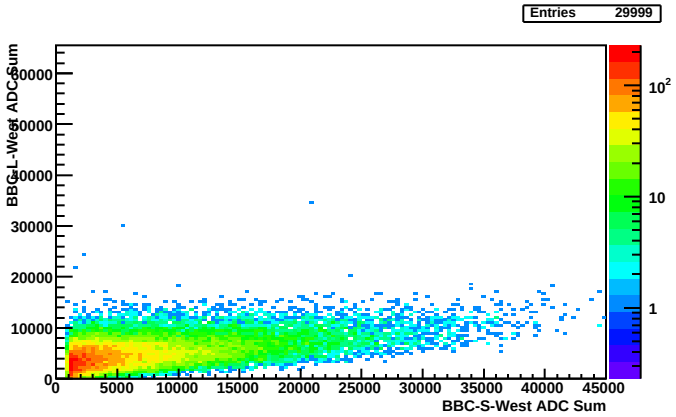

Entries 29999
TOF Mult
VPD-East ADC Sum

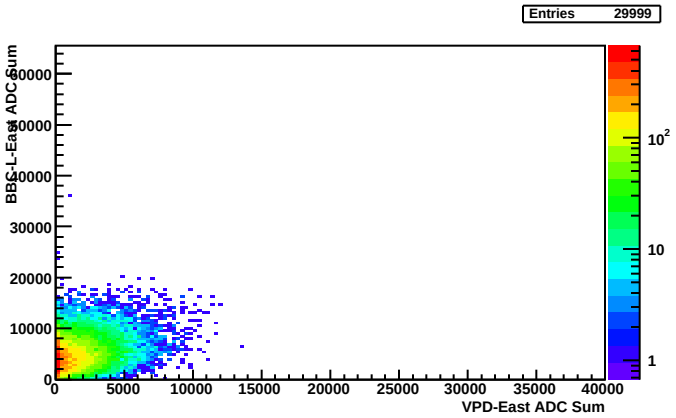

Entries 29999
TOF Mult
VPD-West ADC Sum

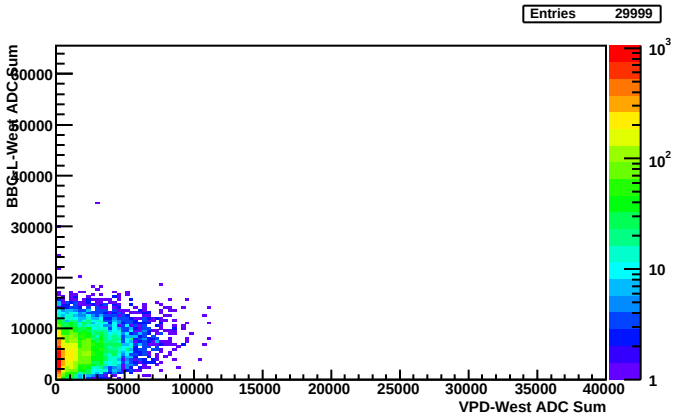

Entries 29999
TOF Mult
ZDC-East ADC Sum Att

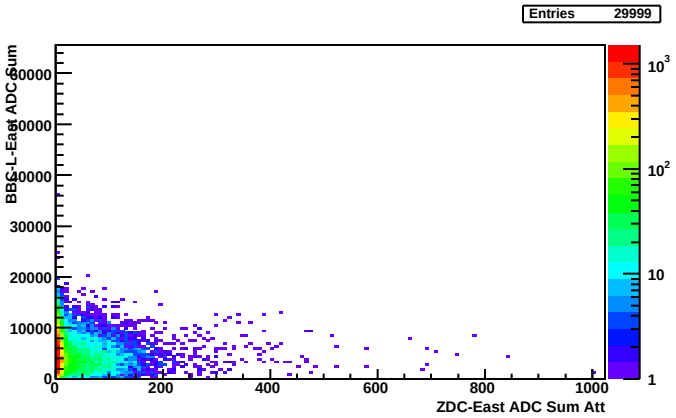

Entries 29999
TOF Mult
ZDC-West ADC Sum Att

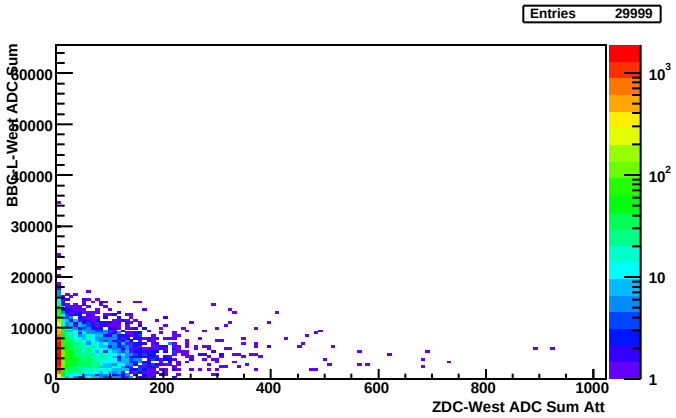

Entries 29999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

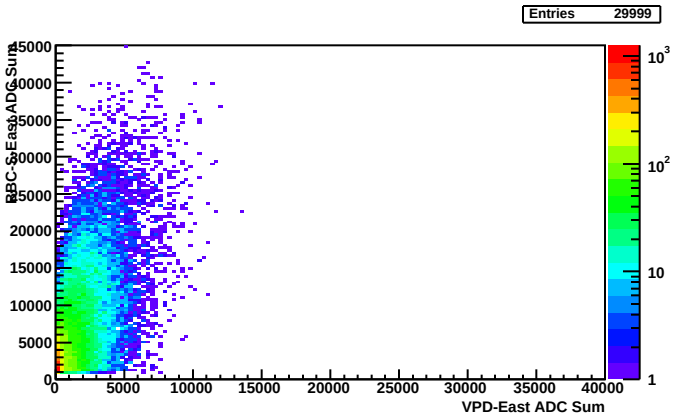

Entries 29999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

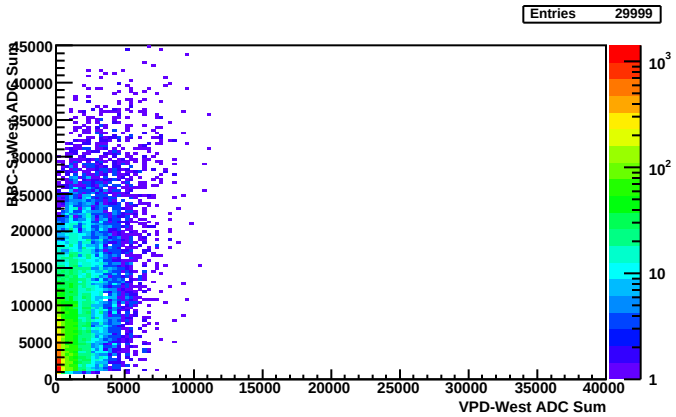

Entries 29999
BBC-L-East ADC Sum
VPD-East ADC Sum

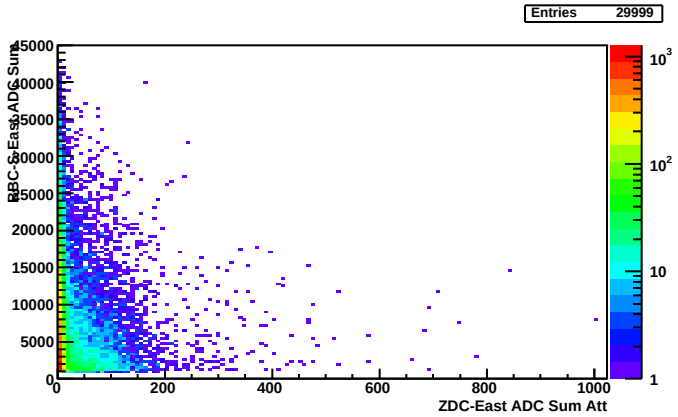

Entries 29999
BBC-L-West ADC Sum
VPD-West ADC Sum

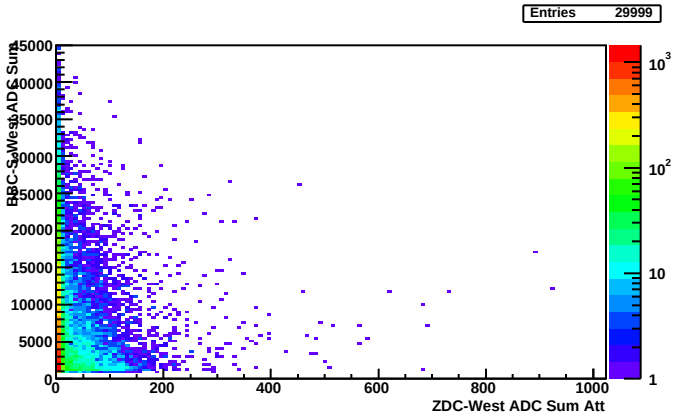

Entries 29999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

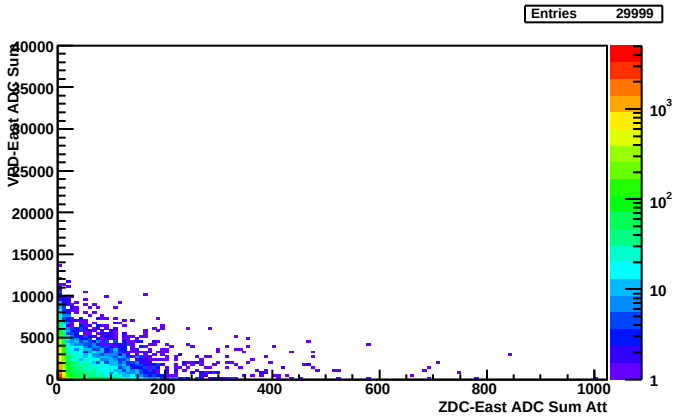

Entries 29999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

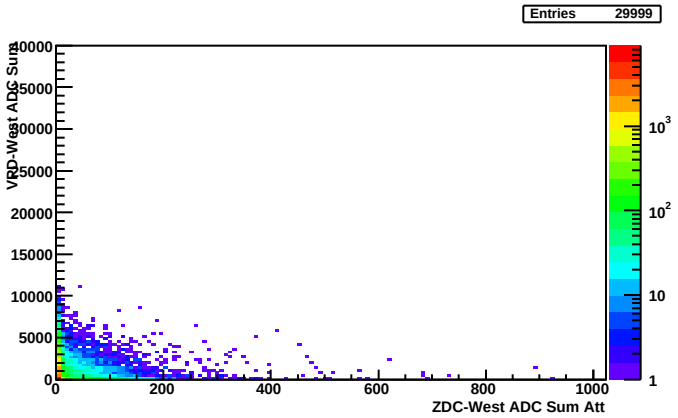

Entries 29999
BBC-S-East ADC Sum
VPD-East ADC Sum

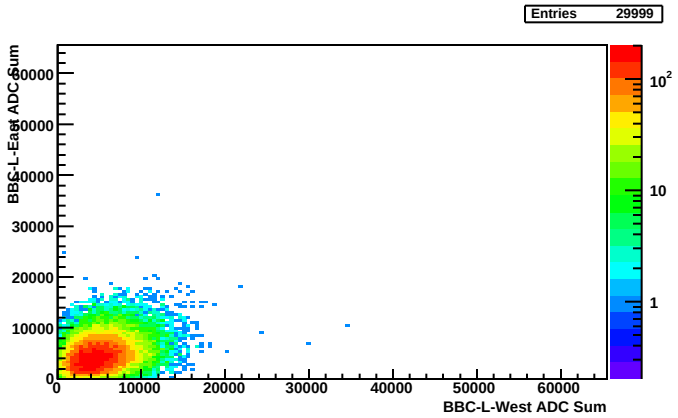

Entries 29999
BBC-S-West ADC Sum
VPD-West ADC Sum

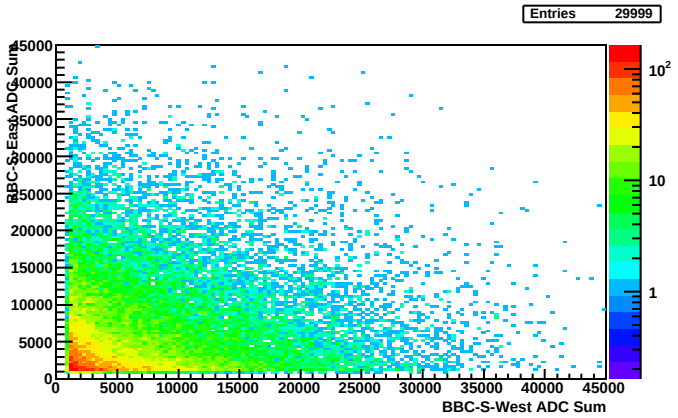

Entries 29999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

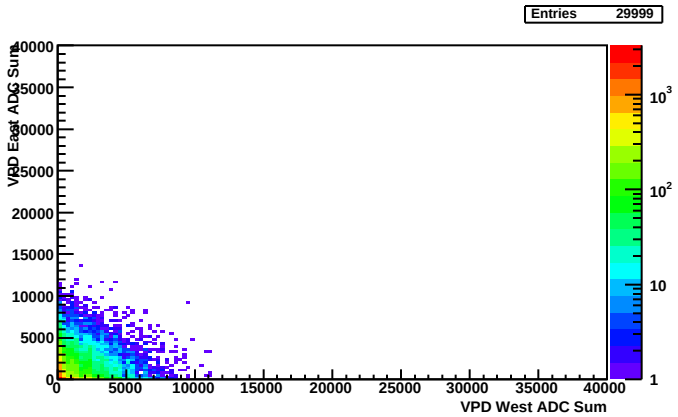

Entries 29999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

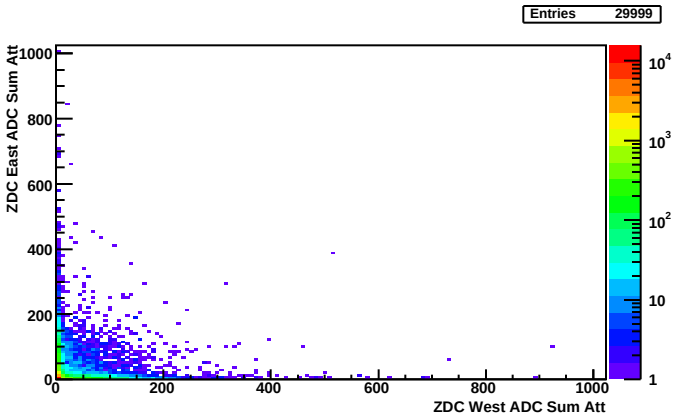

Entries 29999
VPD-East ADC Sum
ZDC-East ADC Sum Att

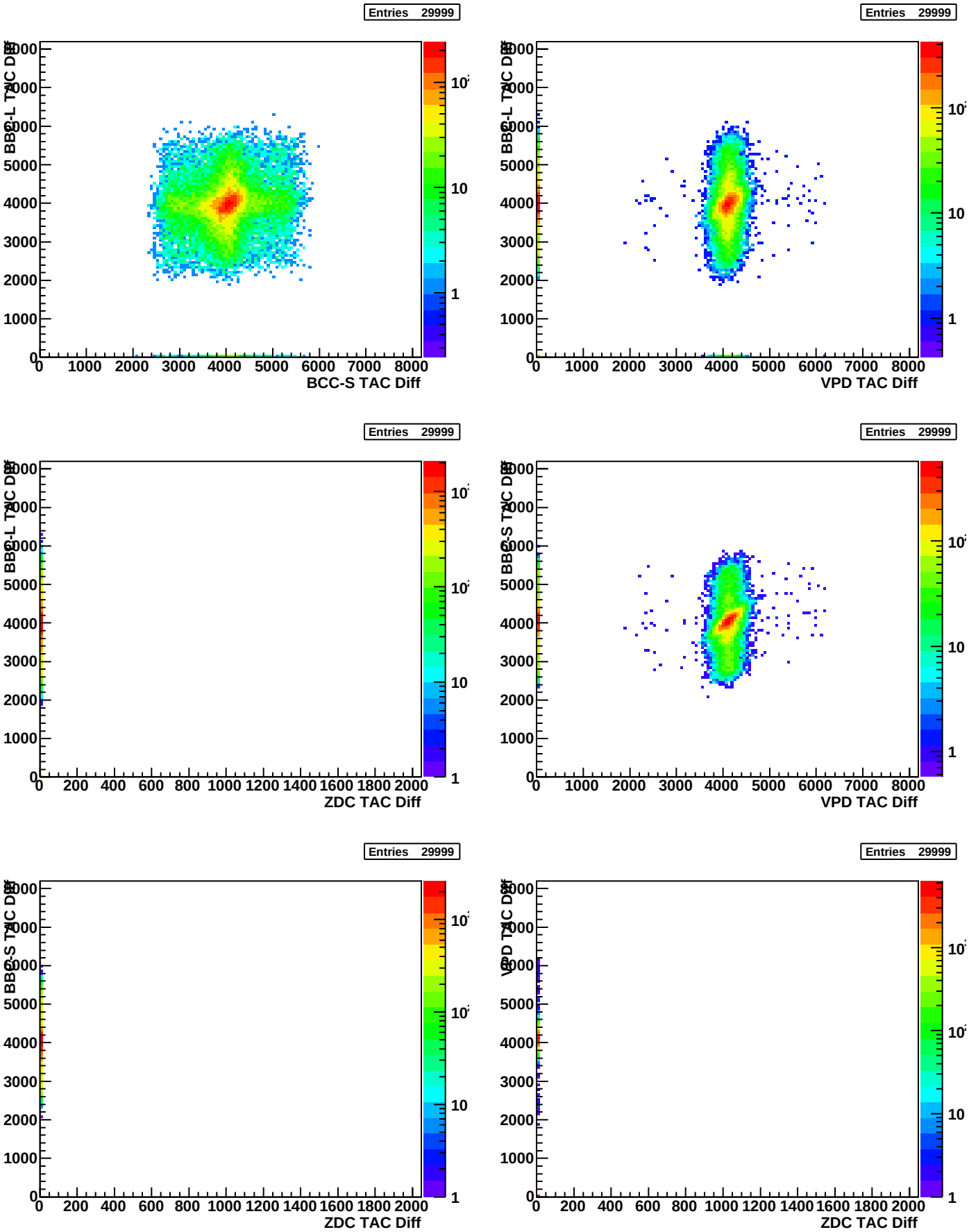

Entries 29999
VPD-West ADC Sum
ZDC-West ADC Sum Att

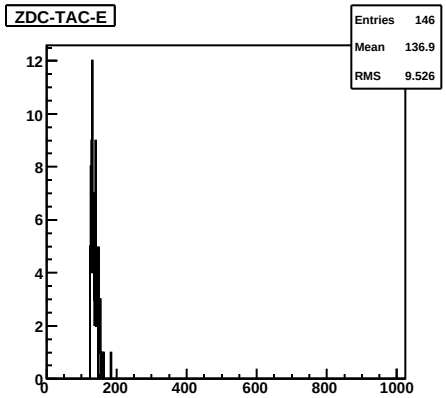

Entries 29999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

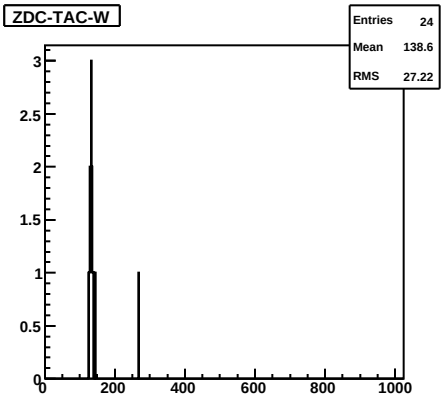

Entries 29999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

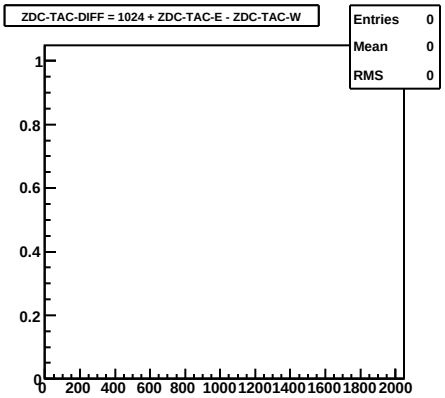

Entries 29999
VPD East ADC Sum
VPD West ADC Sum

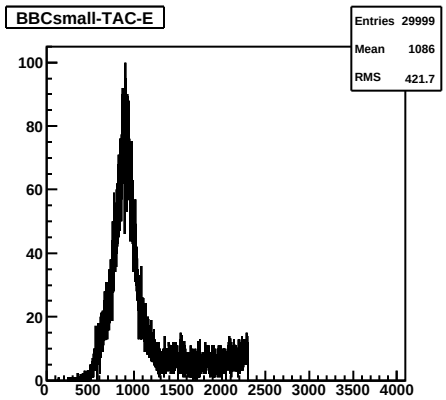

Entries 29999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

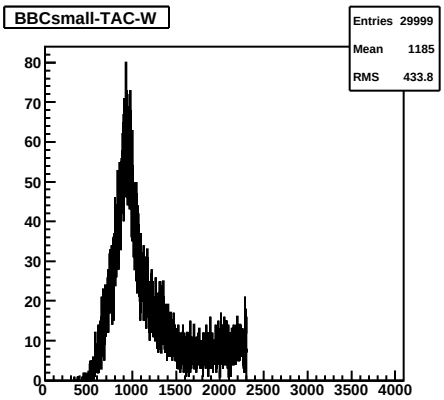

Entries 29999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 29999
BBC-L TAC Diff
VPD TAC Diff
Entries 29999
BBC-L TAC Diff
ZDC TAC Diff
Entries 29999
BBC-S TAC Diff
VPD TAC Diff
Entries 29999
BBC-S TAC Diff
ZDC TAC Diff
Entries 29999
VPD TAC Diff
ZDC TAC Diff

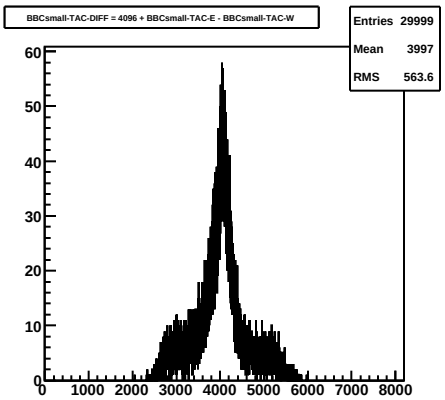

ZDC-TAC-E
Entries 146
Mean 136.9
RMS 9.526

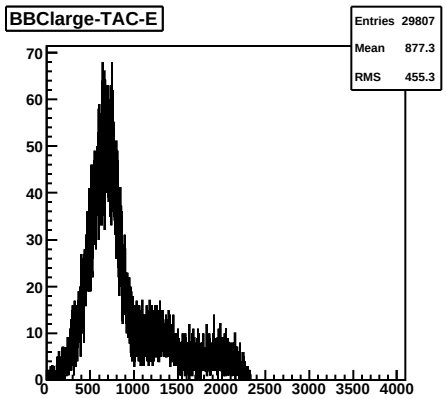

ZDC-TAC-W
Entries 24
Mean 138.6
RMS 27.22

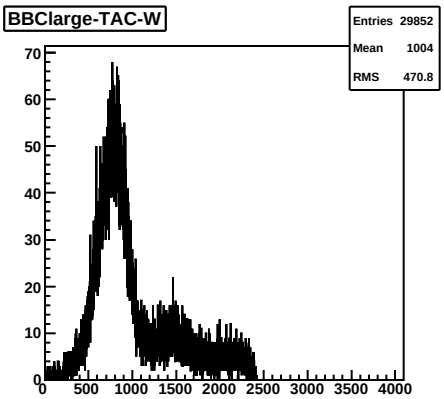

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 0
Mean 0
RMS 0

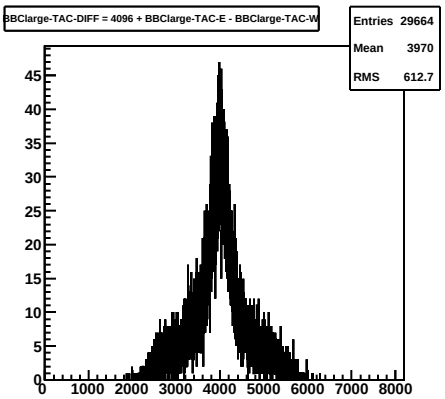

BBCsmall-TAC-E
Entries 29999
Mean 1086
RMS 421.7

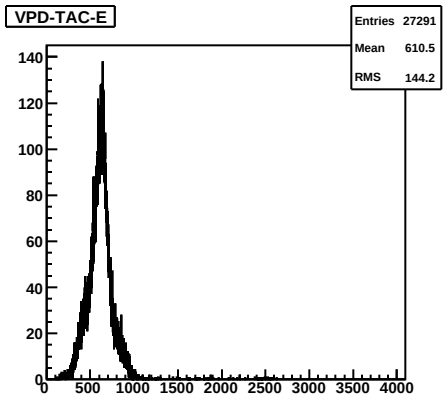

BBCsmall-TAC-W
Entries 29999
Mean 1185
RMS 433.8

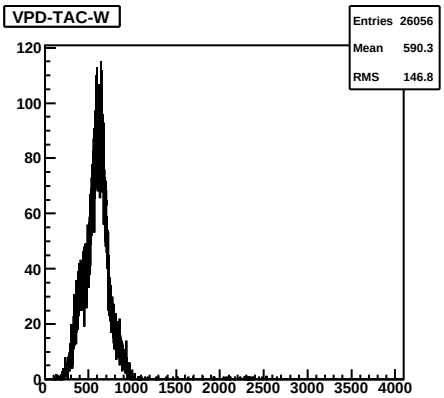

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 29999
Mean 3997
RMS 563.6

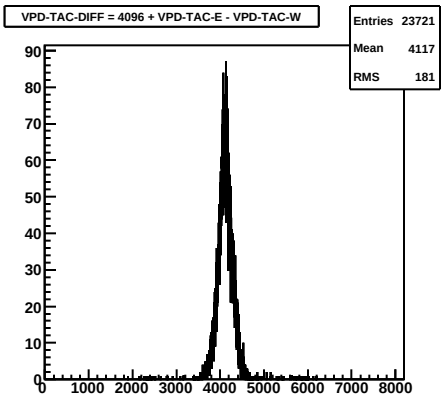

BBClarge-TAC-E
Entries 29807
Mean 877.3
RMS 455.3

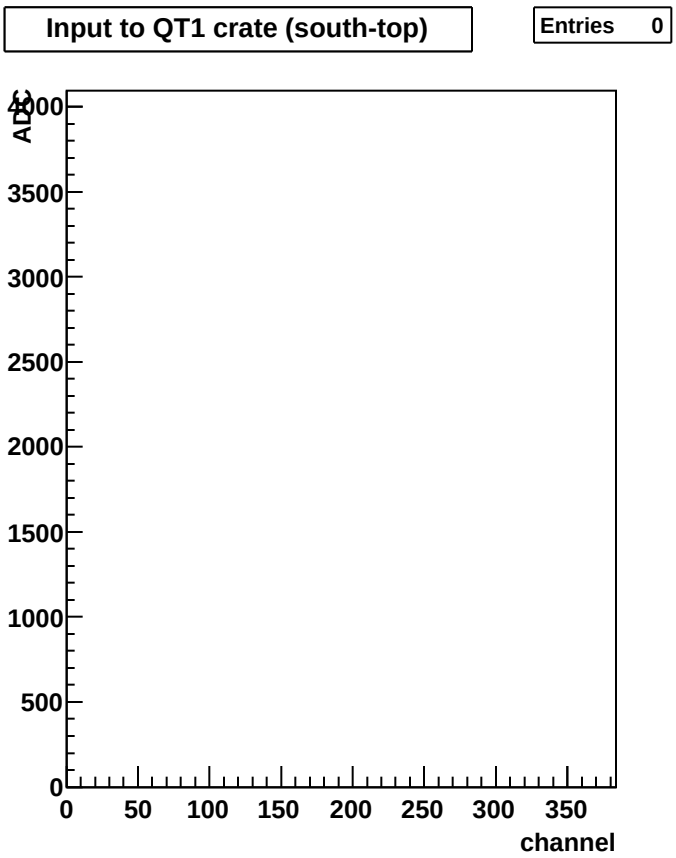

BBClarge-TAC-W
Entries 29852
Mean 1004
RMS 470.8

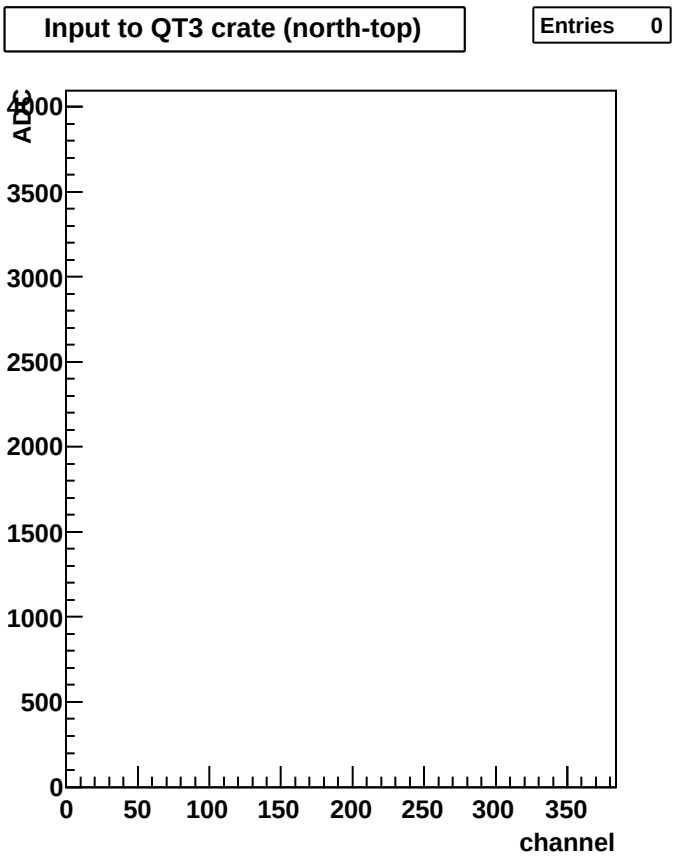

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 29664
Mean 3970
RMS 612.7

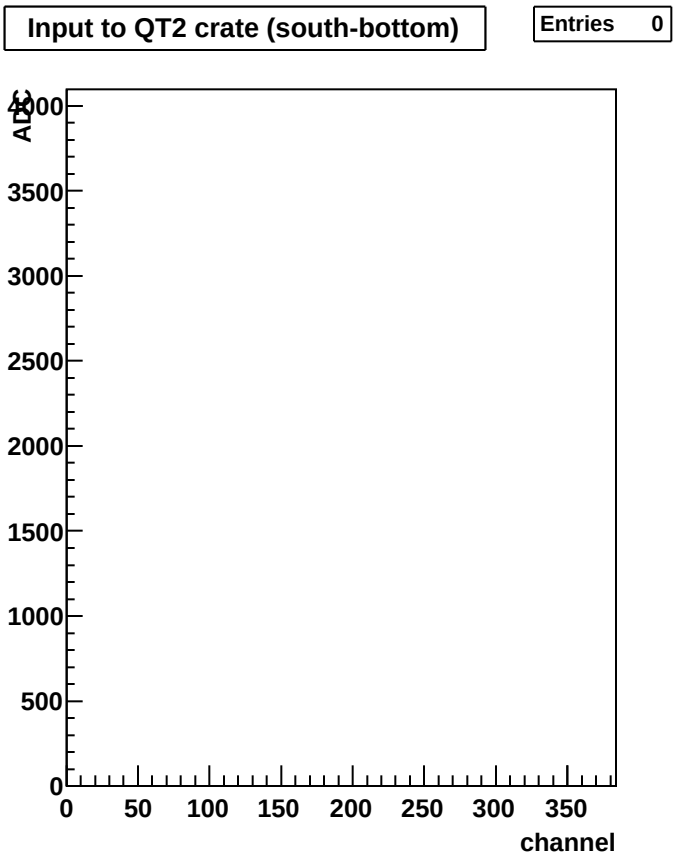

VPD-TAC-E
Entries 27291
Mean 610.5
RMS 144.2

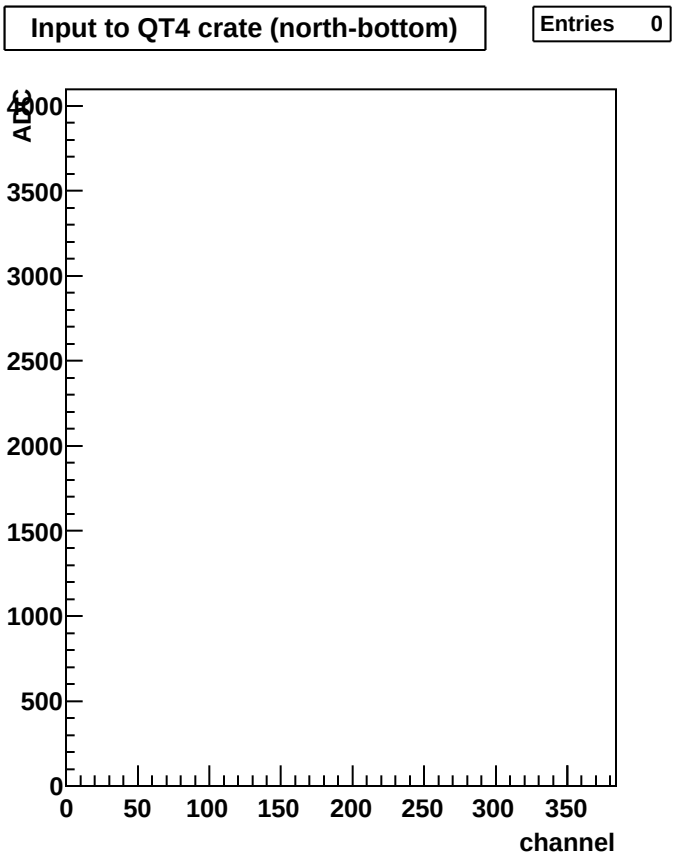

VPD-TAC-W
Entries 26056
Mean 590.3
RMS 146.8

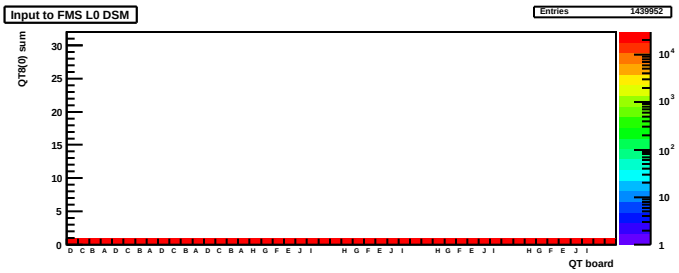

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 23721
Mean 4117
RMS 181

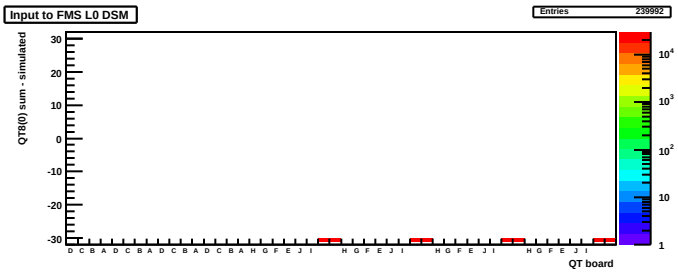

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

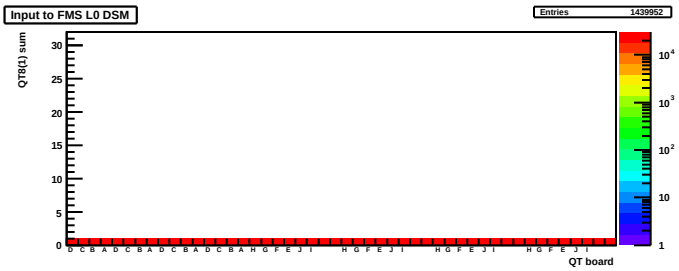

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

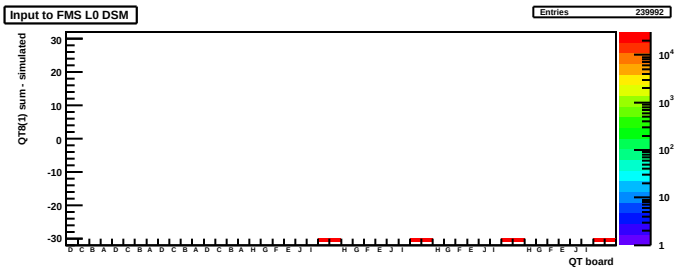

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

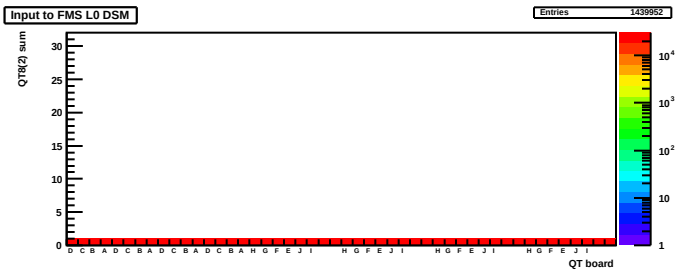

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

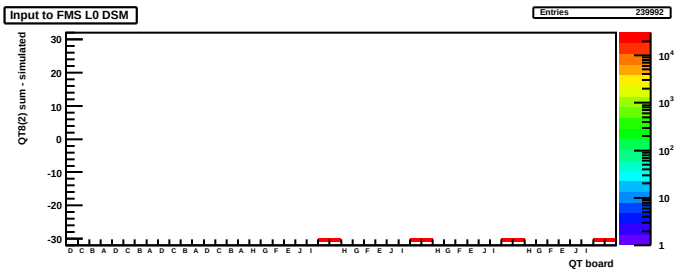

Input to FMS L0 DSM
Entries 1439952
QT8(0) sum
QT board

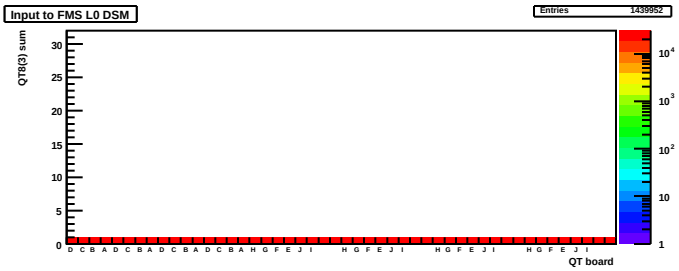

Input to FMS L0 DSM
Entries 239992
QT8(0) sum - simulated
QT board

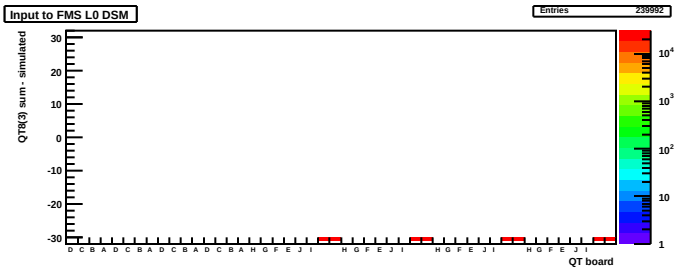

Input to FMS L0 DSM
Entries 1439952
QT8(1) sum
QT board

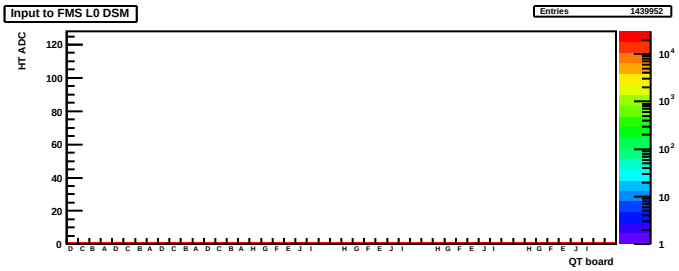

Input to FMS L0 DSM
Entries 239992
QT8(1) sum - simulated
QT board

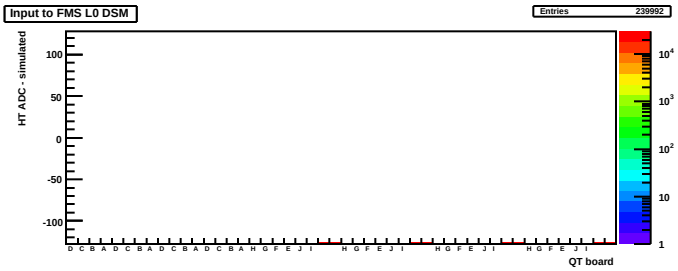

Input to FMS L0 DSM
Entries 1439952
QT8(2) sum
QT board

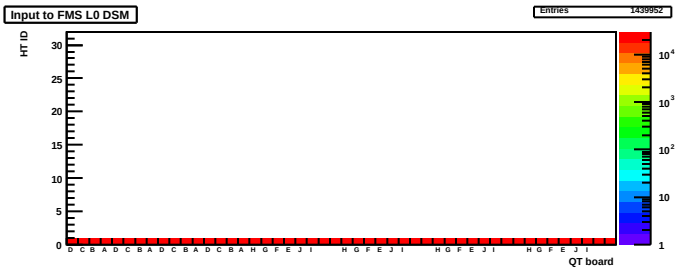

Input to FMS L0 DSM
Entries 239992
QT8(2) sum - simulated
QT board

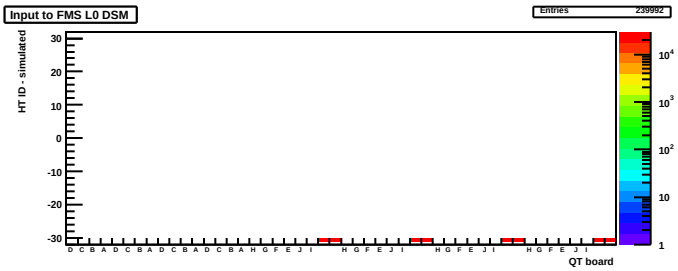

Input to FMS L0 DSM
Entries 1439952
QT8(3) sum
QT board

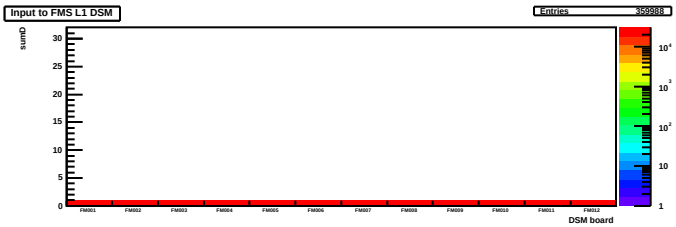

Input to FMS L0 DSM
Entries 239992
QT8(3) sum - simulated
QT board

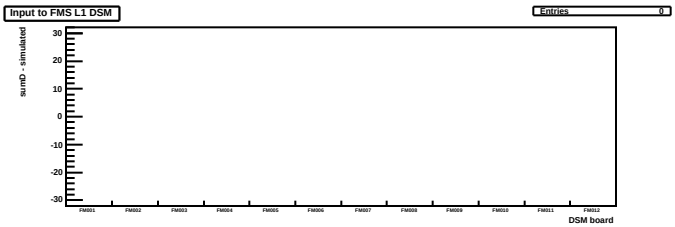

Input to FMS L0 DSM
Entries 1439952
HT ADC
QT board

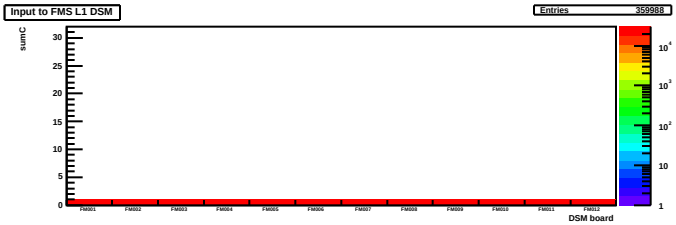

Input to FMS L0 DSM
Entries 239992
HT ADC - simulated
QT board

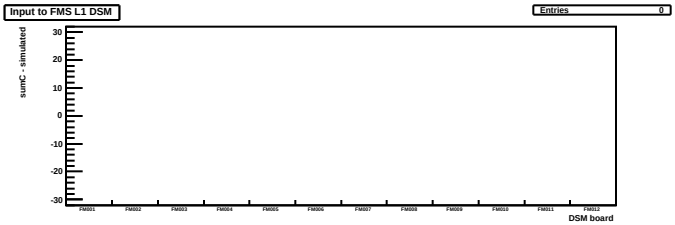

Input to FMS L0 DSM
Entries 1439952
HT ID
QT board

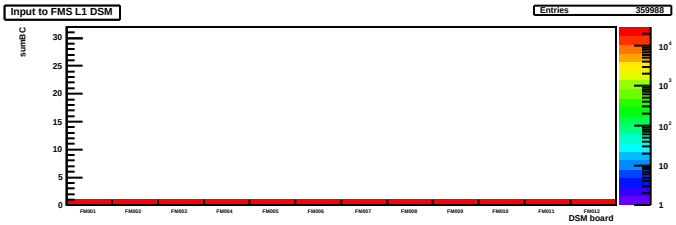

Input to FMS L0 DSM
Entries 239992
HT ID - simulated
QT board

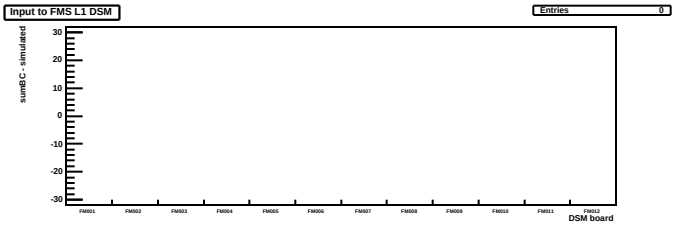

Input to FMS L1 DSM
Entries 359988
sumD
DSM board

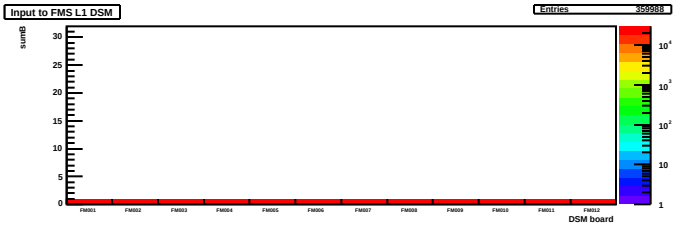

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

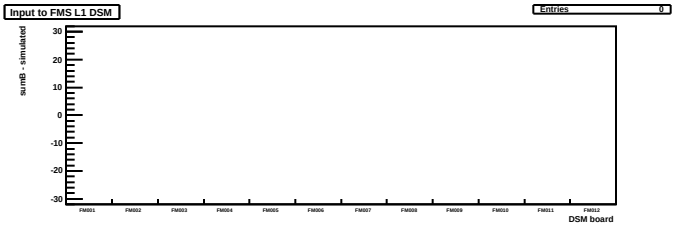

Input to FMS L1 DSM
Entries 359988
sumC
DSM board

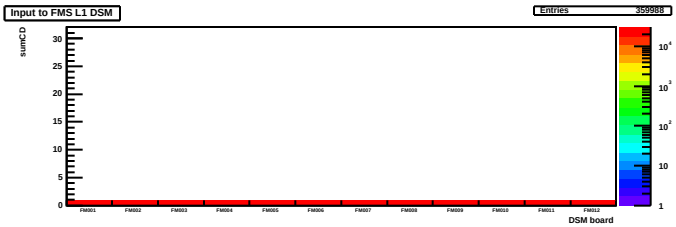

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

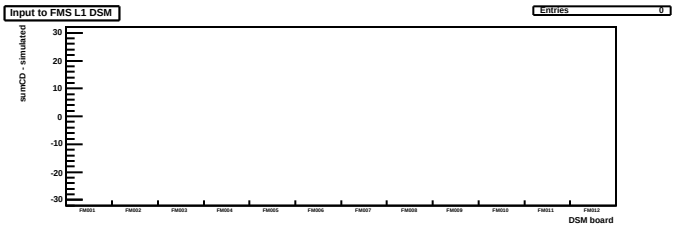

Input to FMS L1 DSM
Entries 359988
sumBC
DSM board

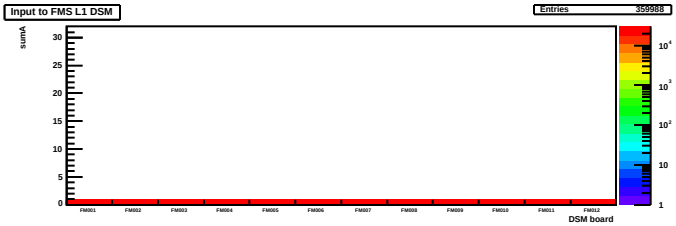

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

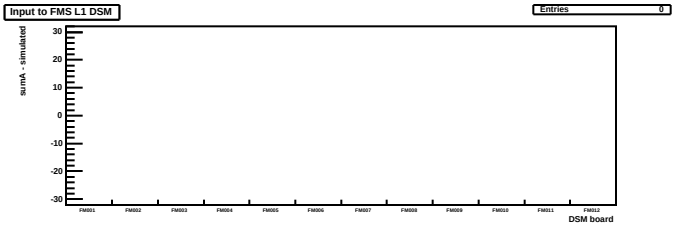

Input to FMS L1 DSM
Entries 359988
sumB
DSM board

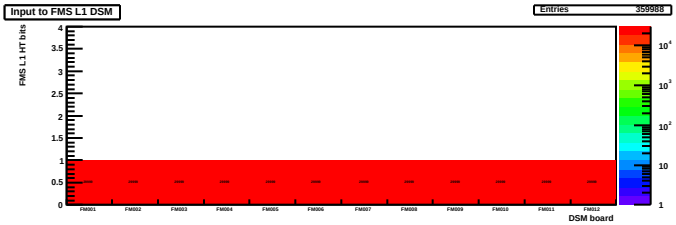

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

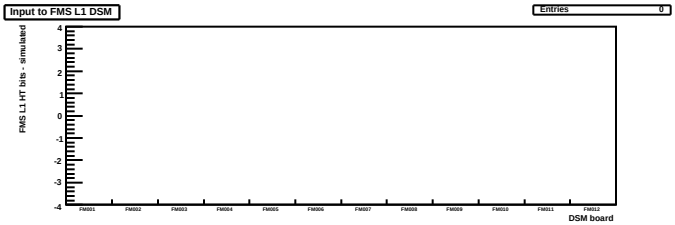

Input to FMS L1 DSM
Entries 359988
sumCD
DSM board

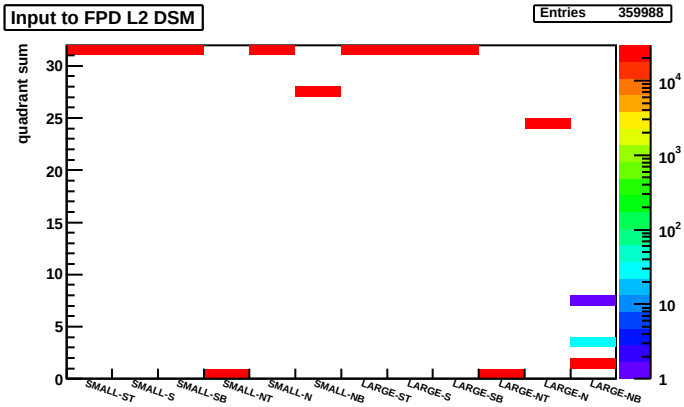

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

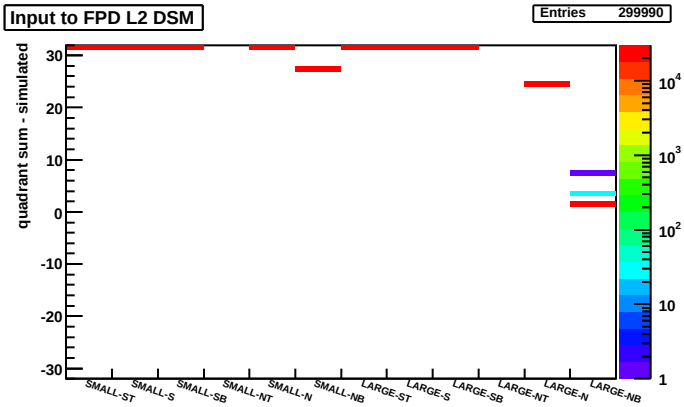

Input to FMS L1 DSM
Entries 359988
sumA
DSM board

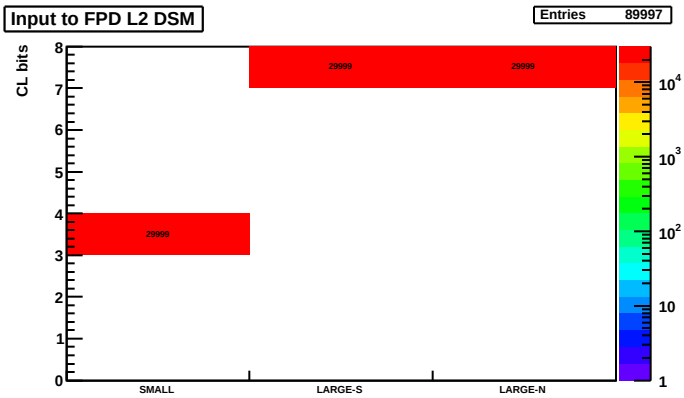

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

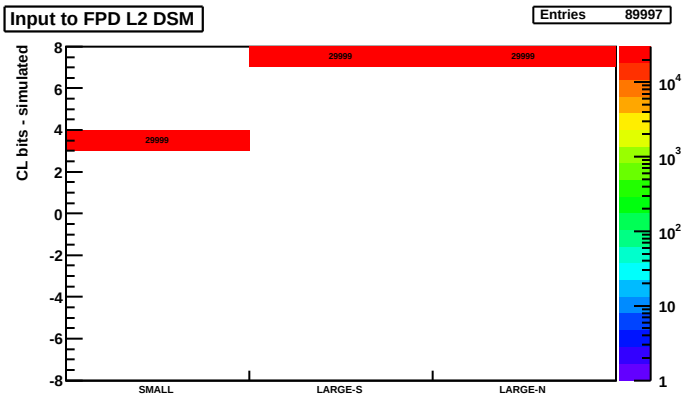

Input to FMS L1 DSM
Entries 359988
FMS L1 HT bits
DSM board

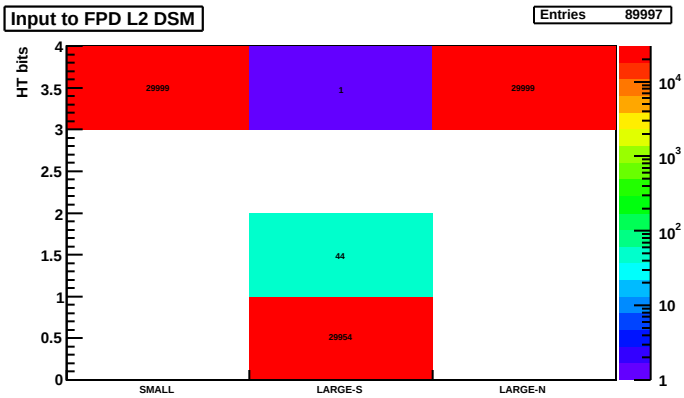

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

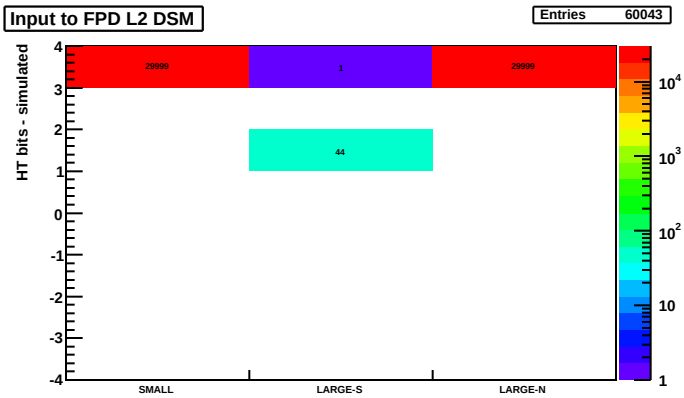

Input to FPD L2 DSM
Entries 359988
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

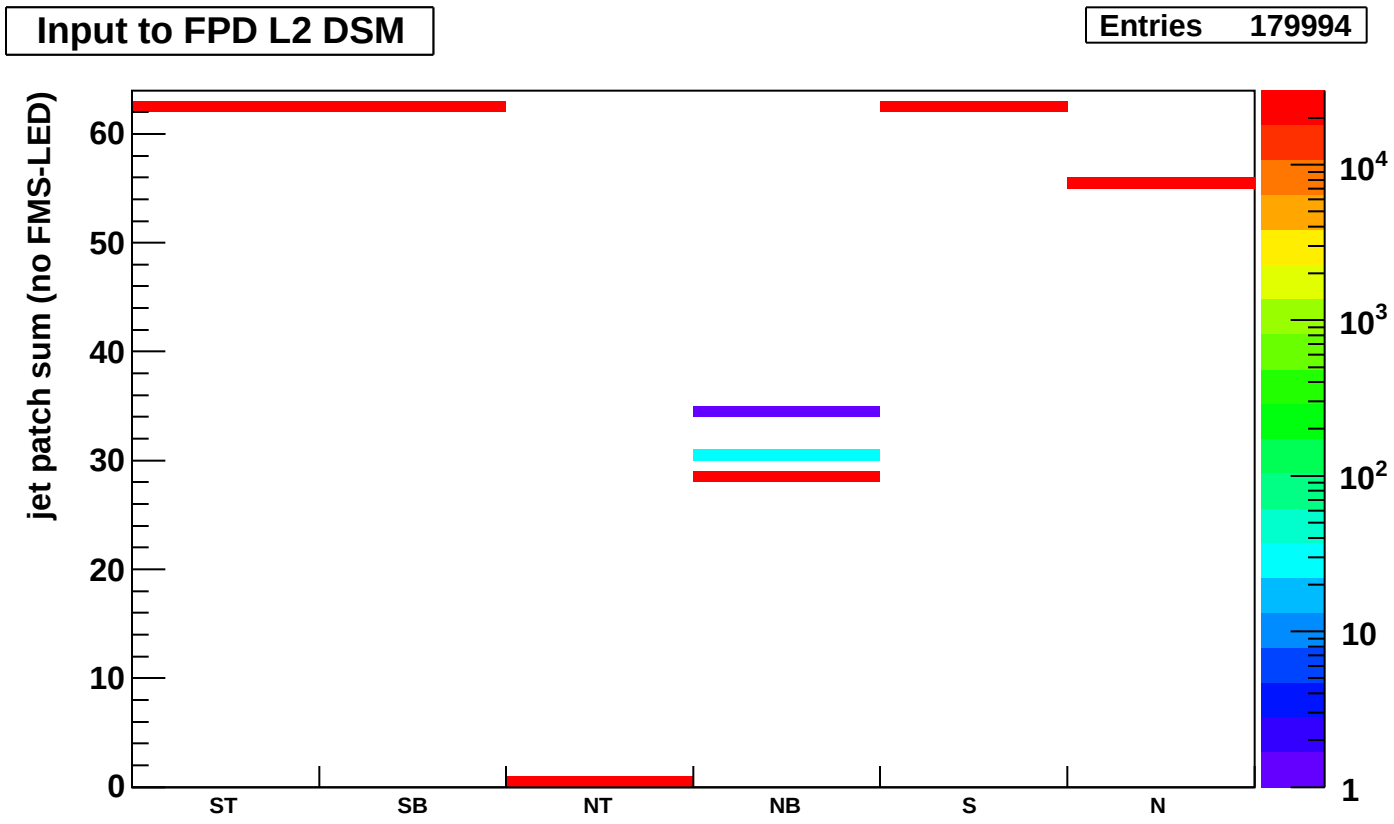

Input to FPD L2 DSM
Entries 299990
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

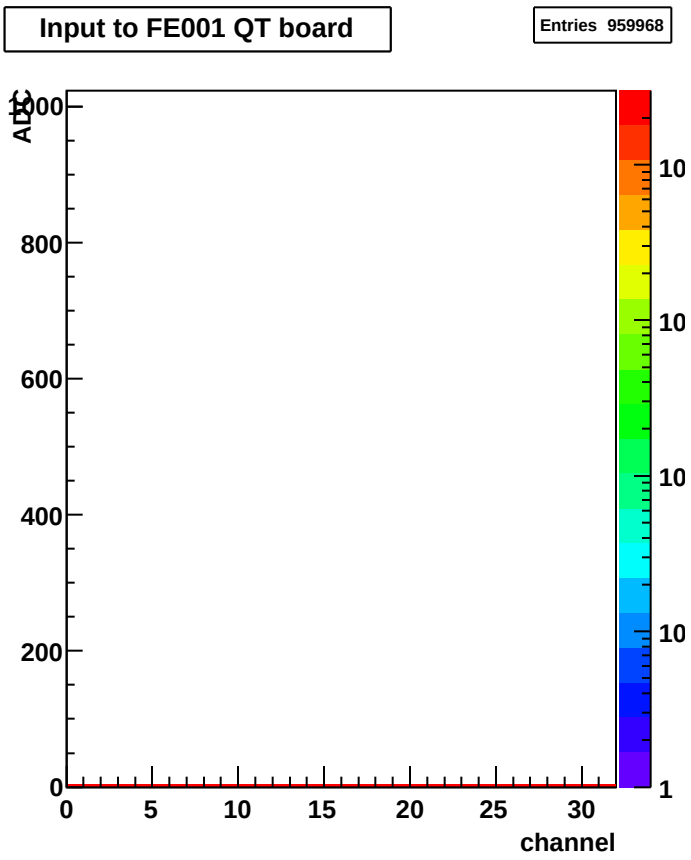

Input to FPD L2 DSM
Entries 89997
CL bits
29999
29999
29999
SMALL
LARGE-S
LARGE-N

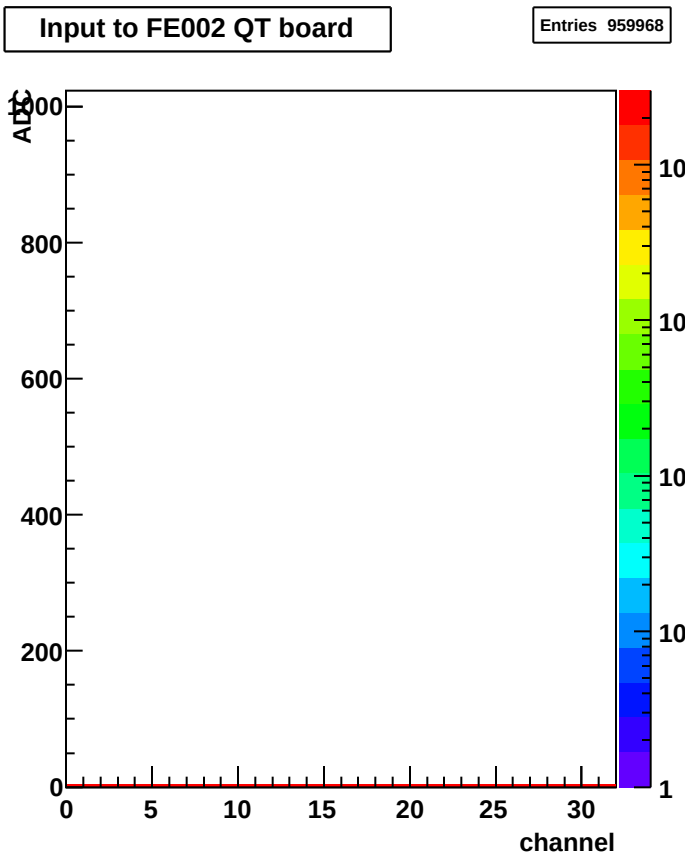

Input to FPD L2 DSM
Entries 89997
CL bits - simulated
29999
29999
29999
SMALL
LARGE-S
LARGE-N

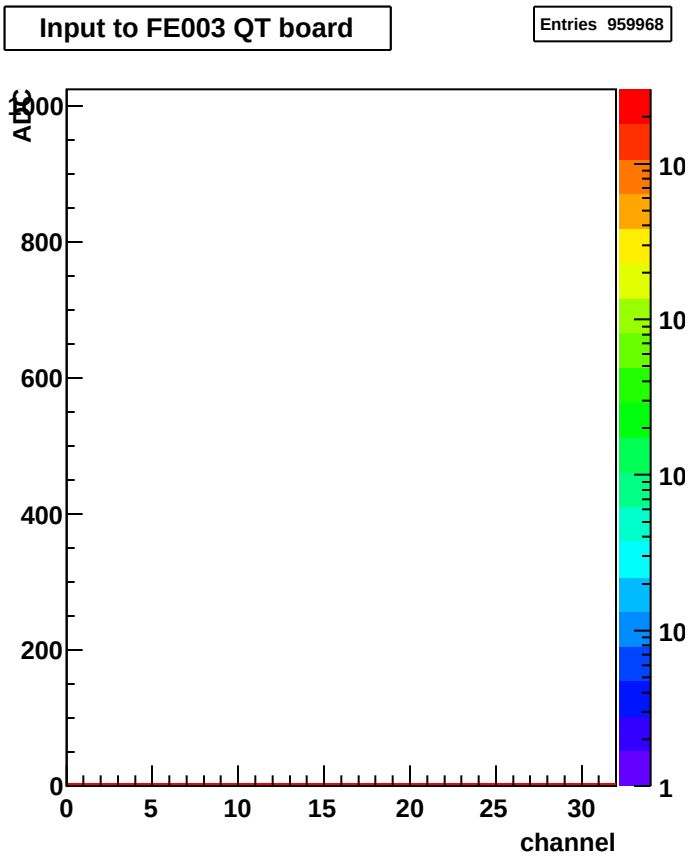

Input to FPD L2 DSM
Entries 89997
HT bits
29999
1
29999
44
29954
SMALL
LARGE-S
LARGE-N

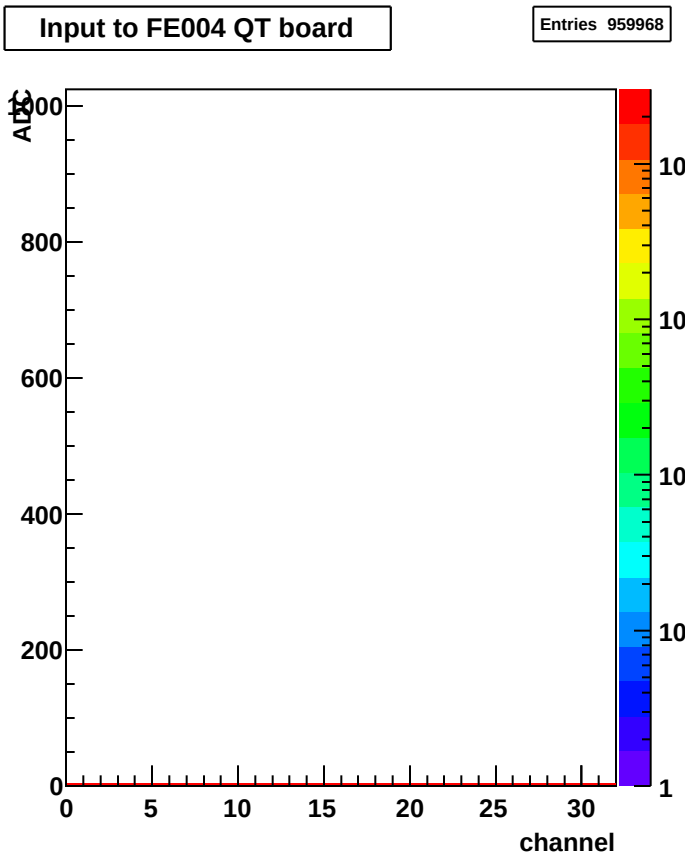

Input to FPD L2 DSM
Entries 60043
HT bits - simulated
29999
1
29999
44
SMALL
LARGE-S
LARGE-N

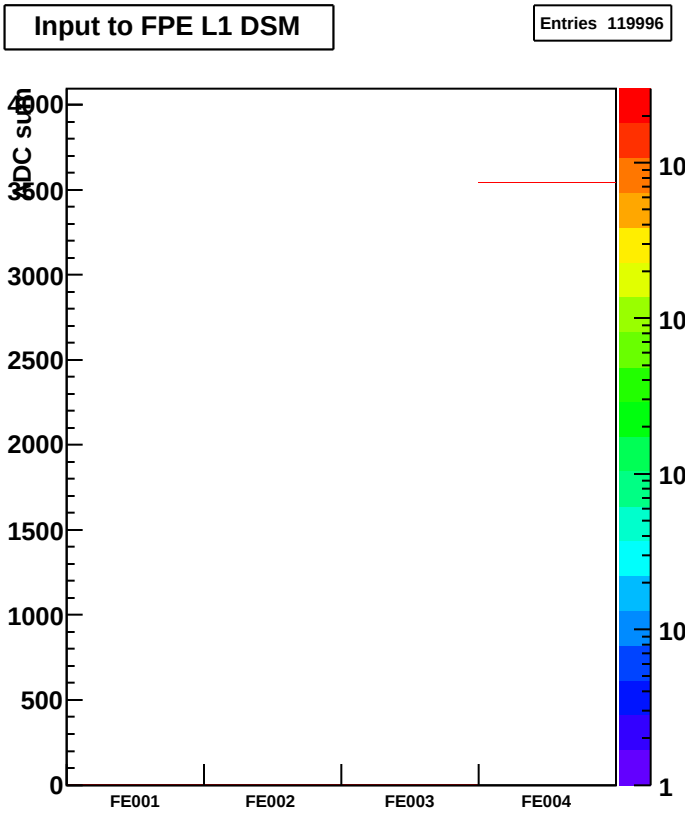

Input to FPD L2 DSM
Entries 179994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

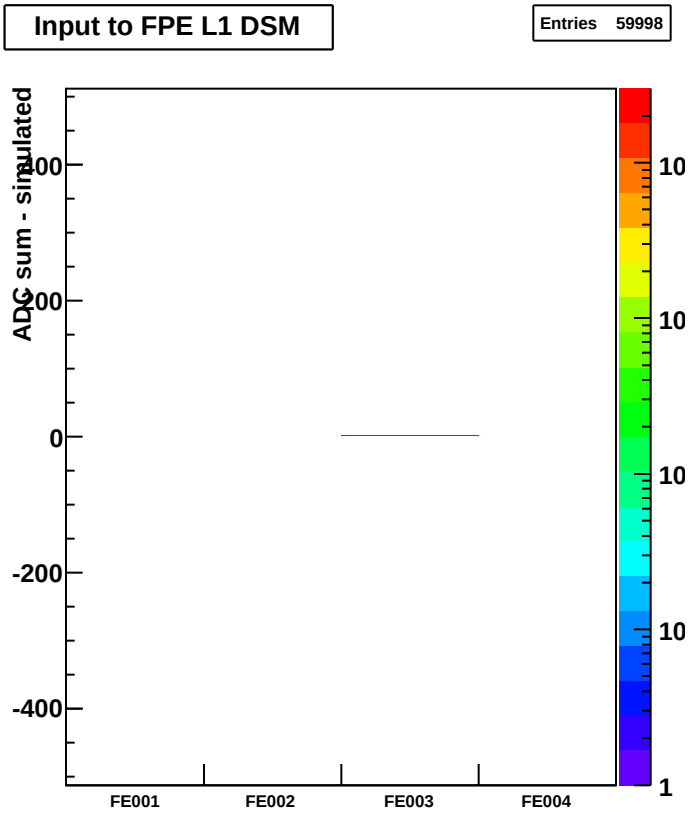

Input to FE001 QT board
Entries 959968
ADC
channel

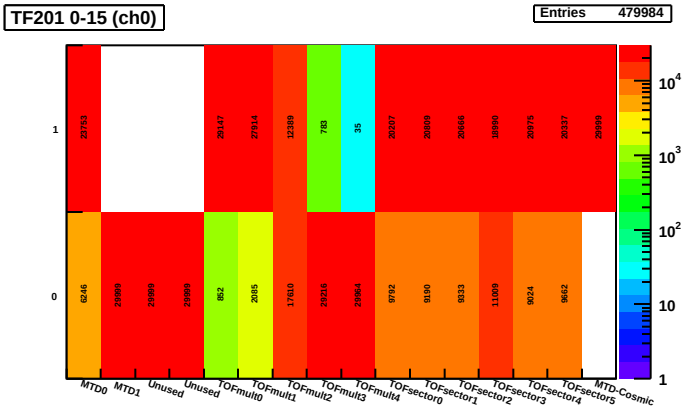

Input to FE002 QT board
Entries 959968
ADC
channel

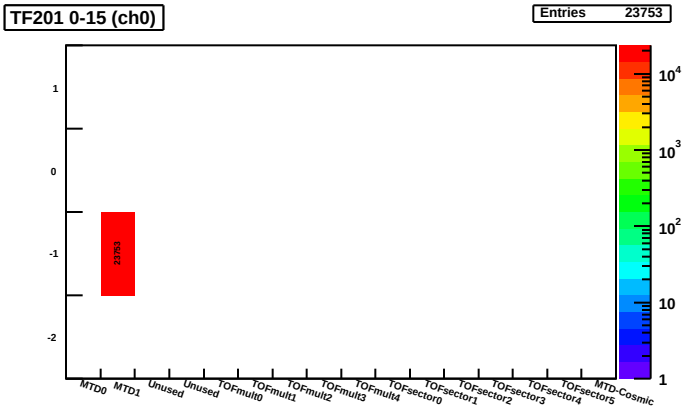

Input to FE003 QT board
Entries 959968
ADC
channel

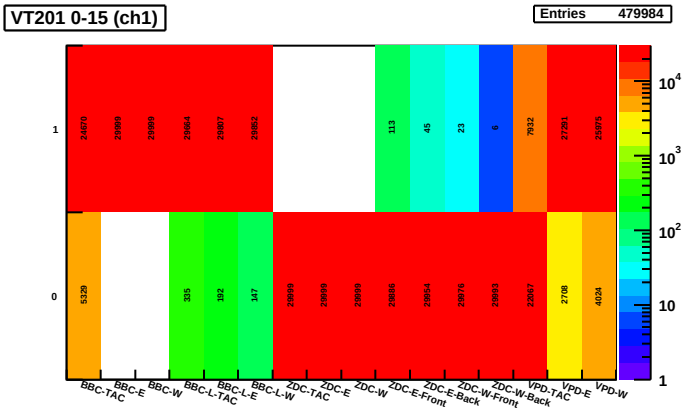

Input to FE004 QT board
Entries 959968
ADC
channel

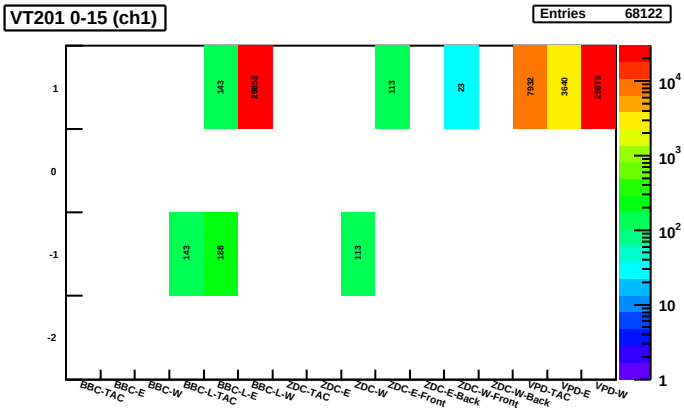

Input to FPE L1 DSM
Entries 119996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

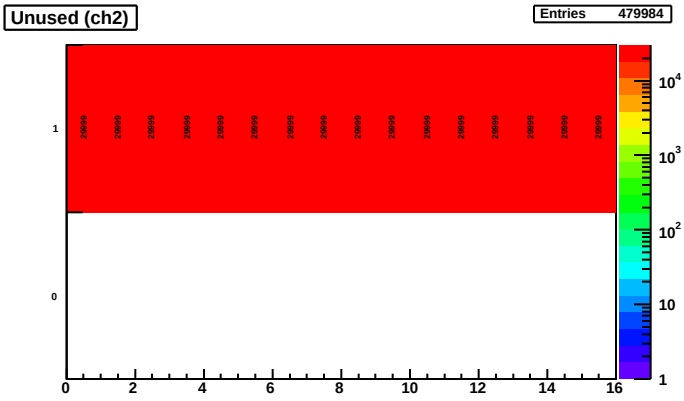

Input to FPE L1 DSM
Entries 59998
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

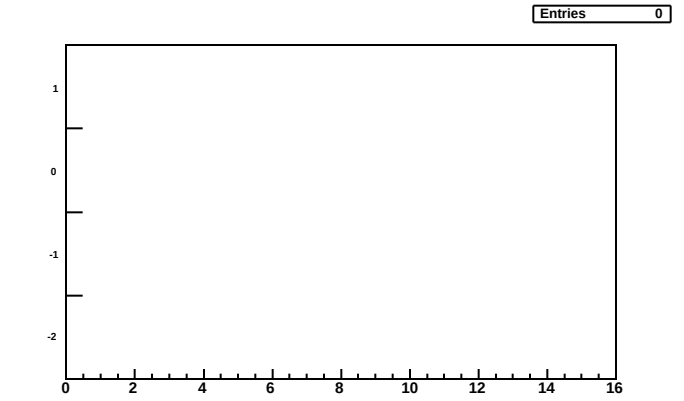

TF201 0-15 (ch0)
Entries 479984
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

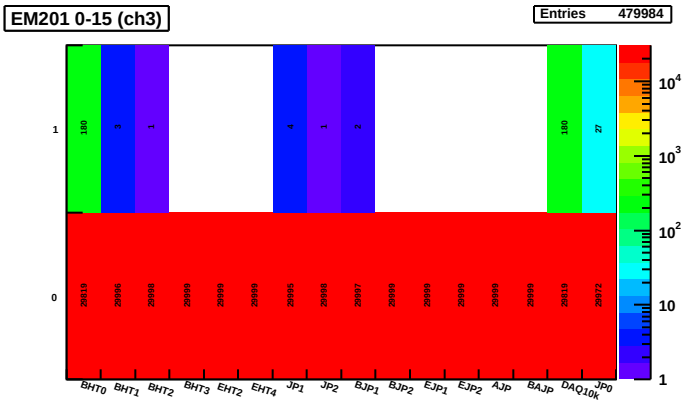

TF201 0-15 (ch0)
Entries 23753
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

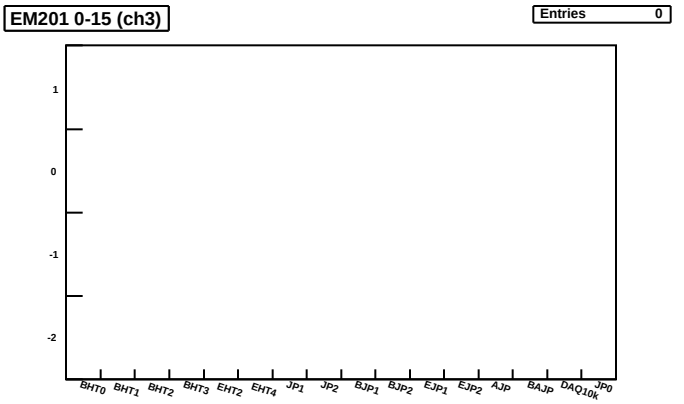

VT201 0-15 (ch1)
Entries 479984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 68122
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

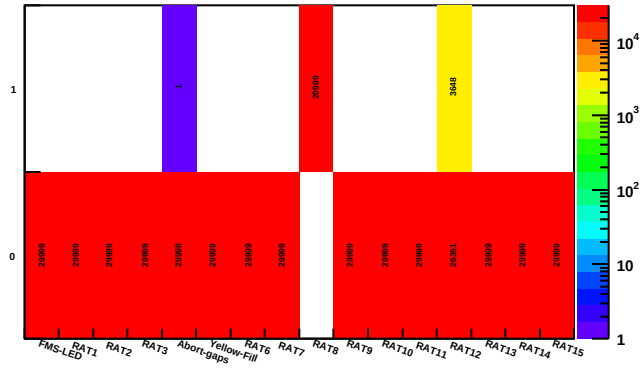

Unused (ch2)
Entries 479984

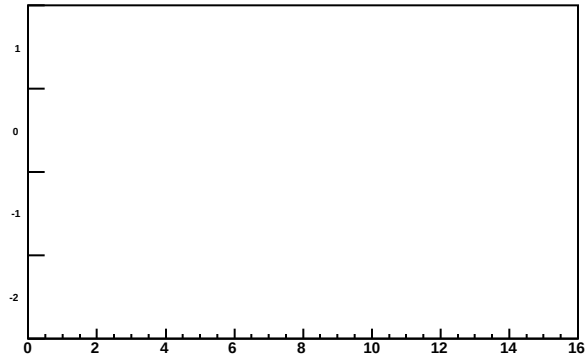

Entries 0


EM201 0-15 (ch3)
Entries 479984
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

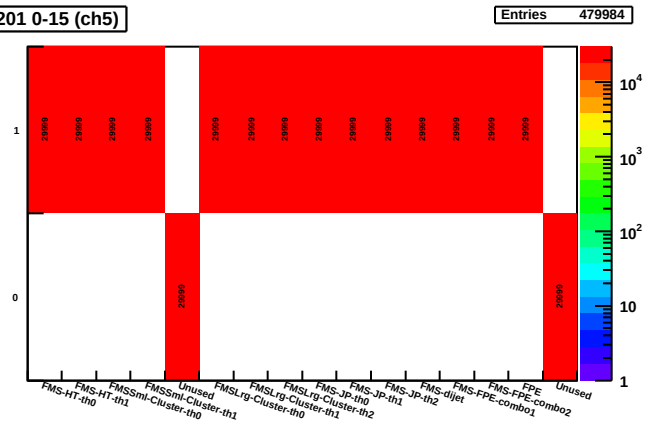

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)





FP201 0-15 (ch5)



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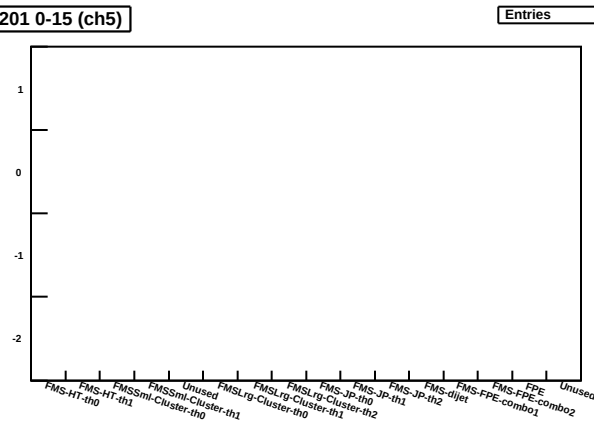
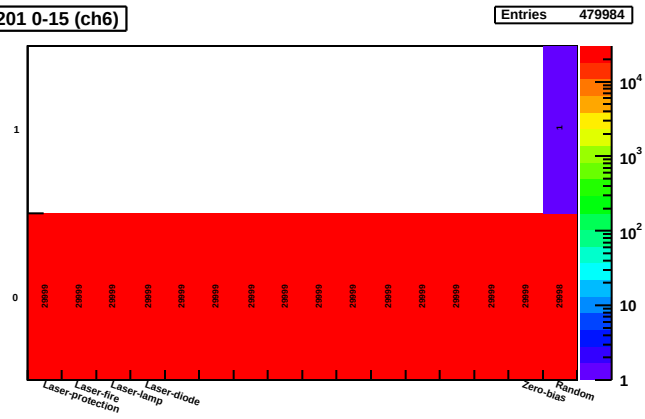
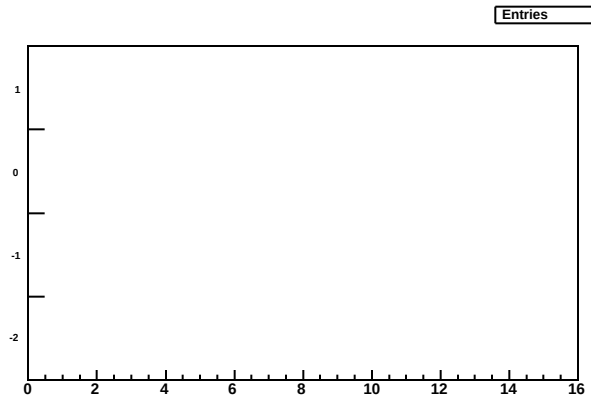
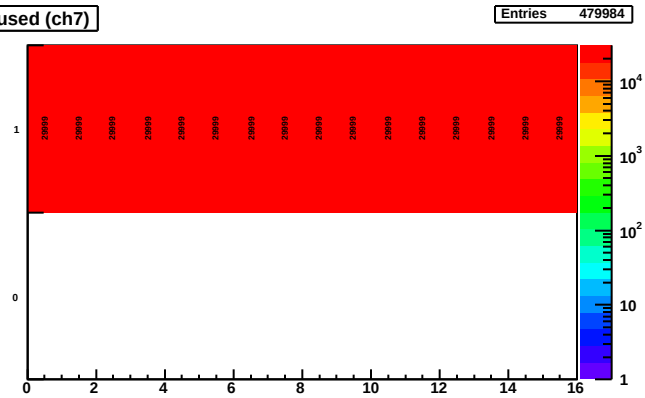
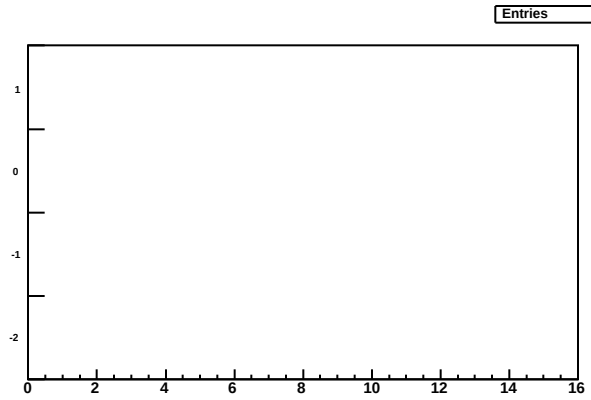


ST201 0-15 (ch6)





Unused (ch7)