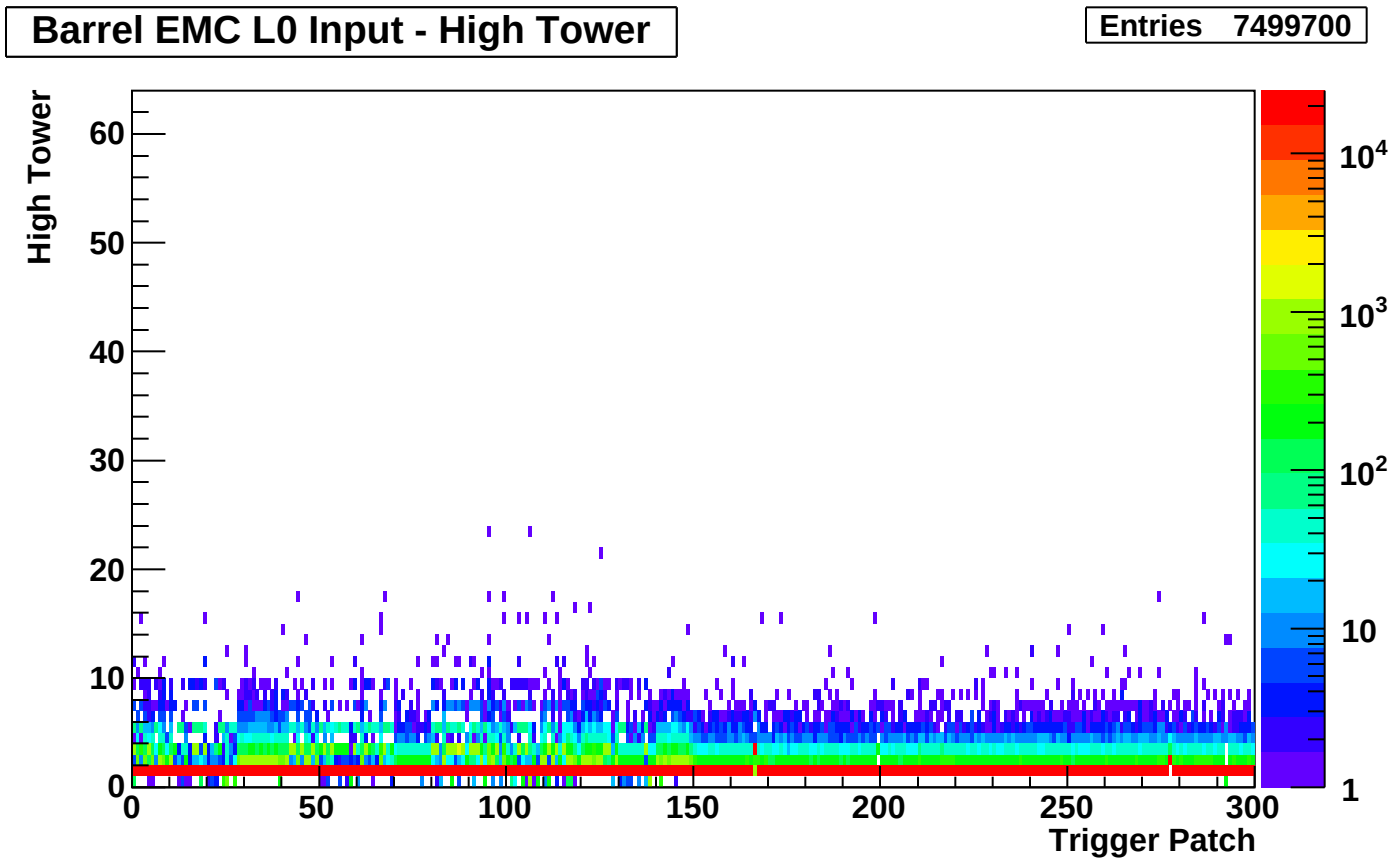
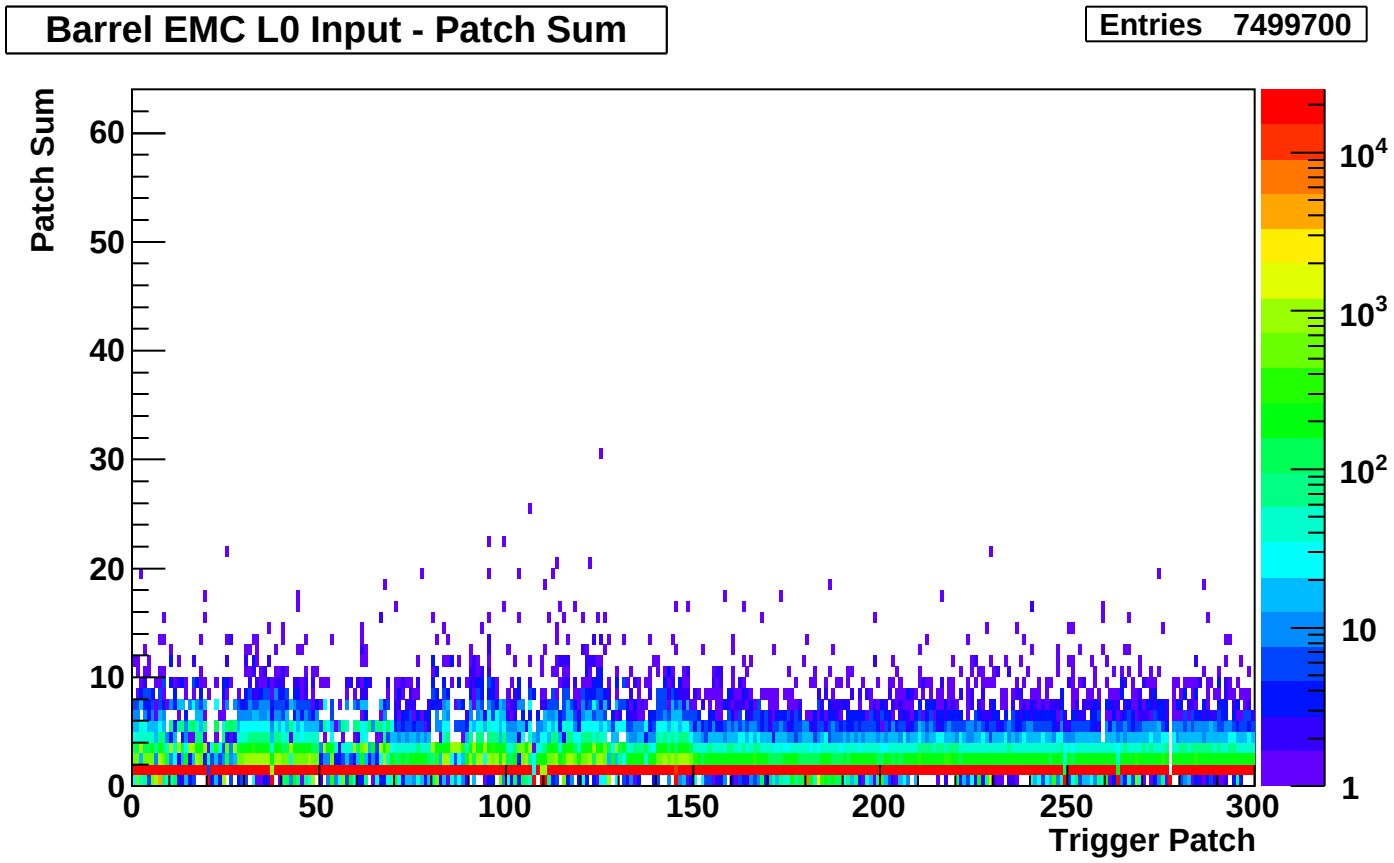
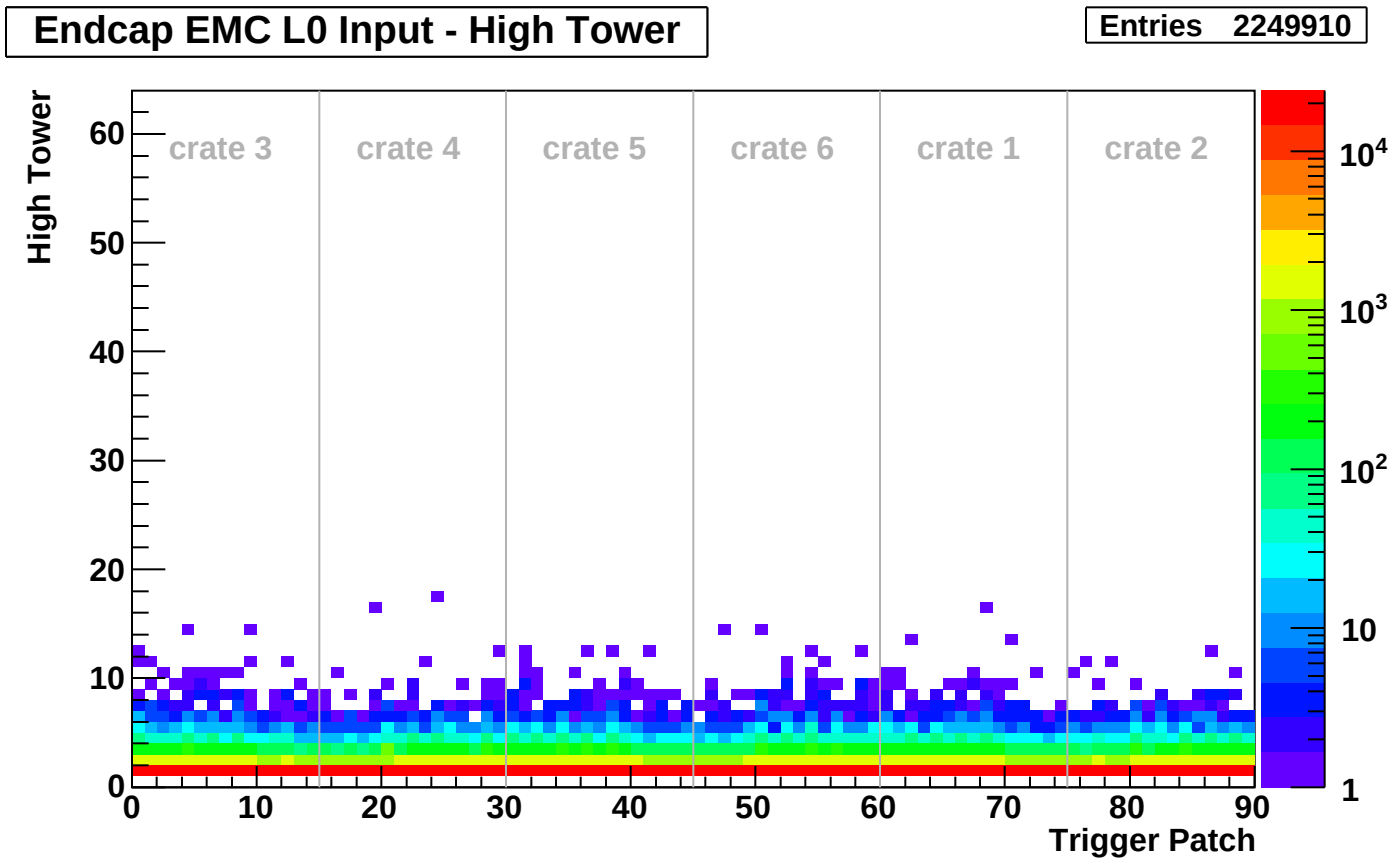
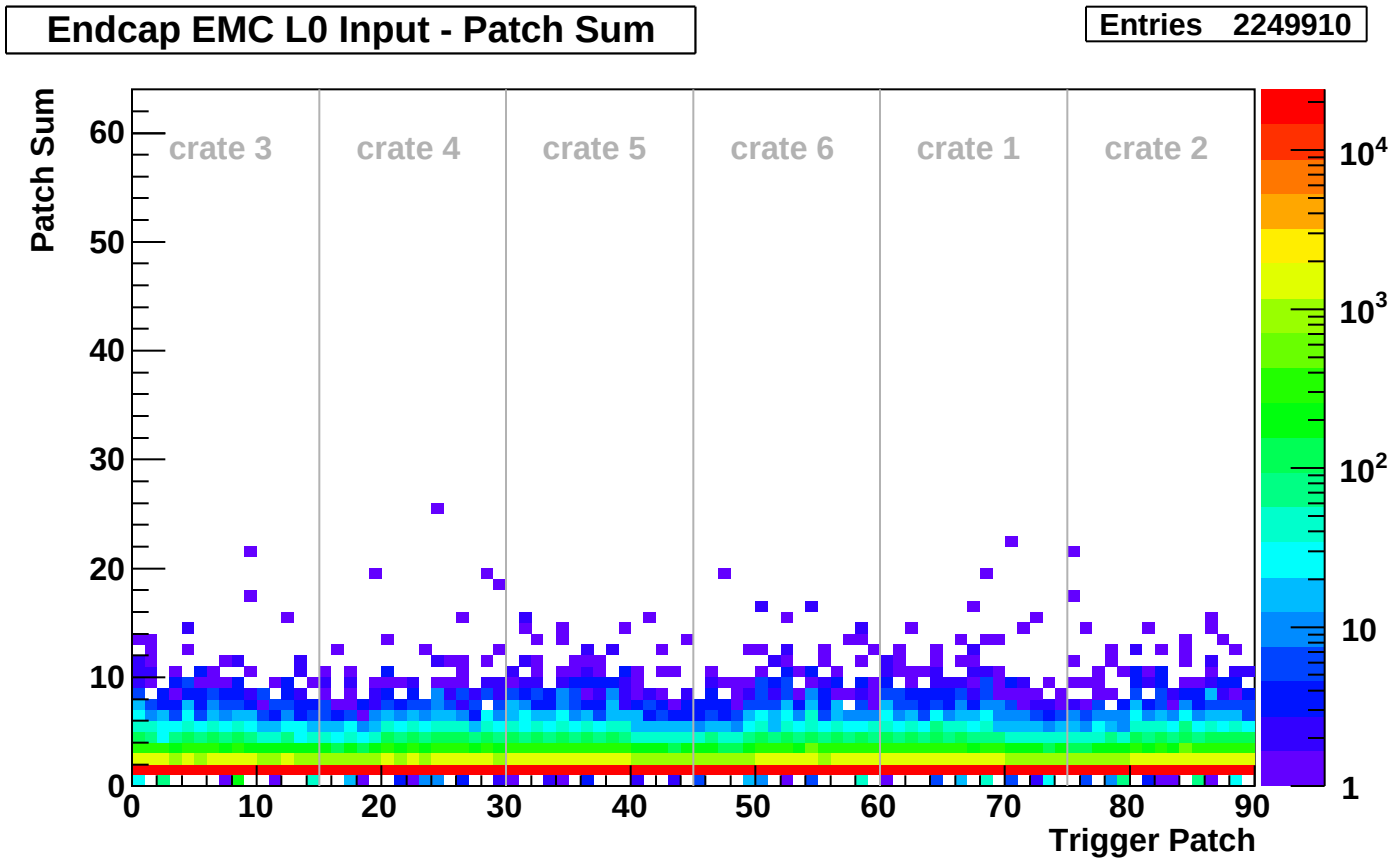
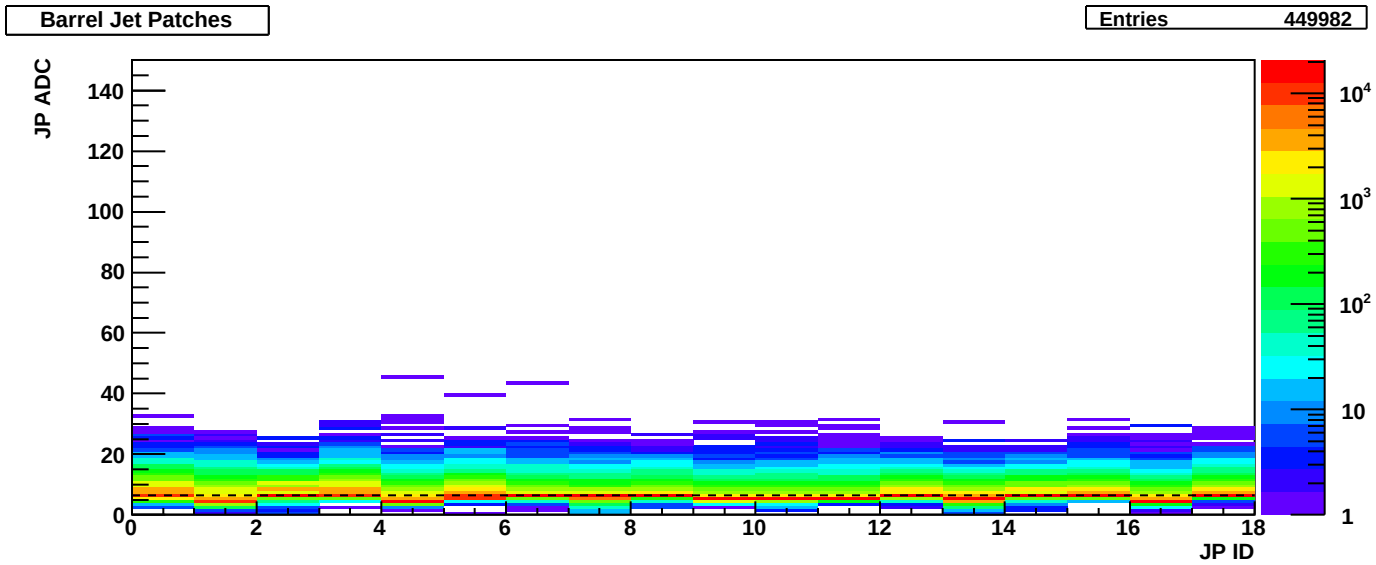
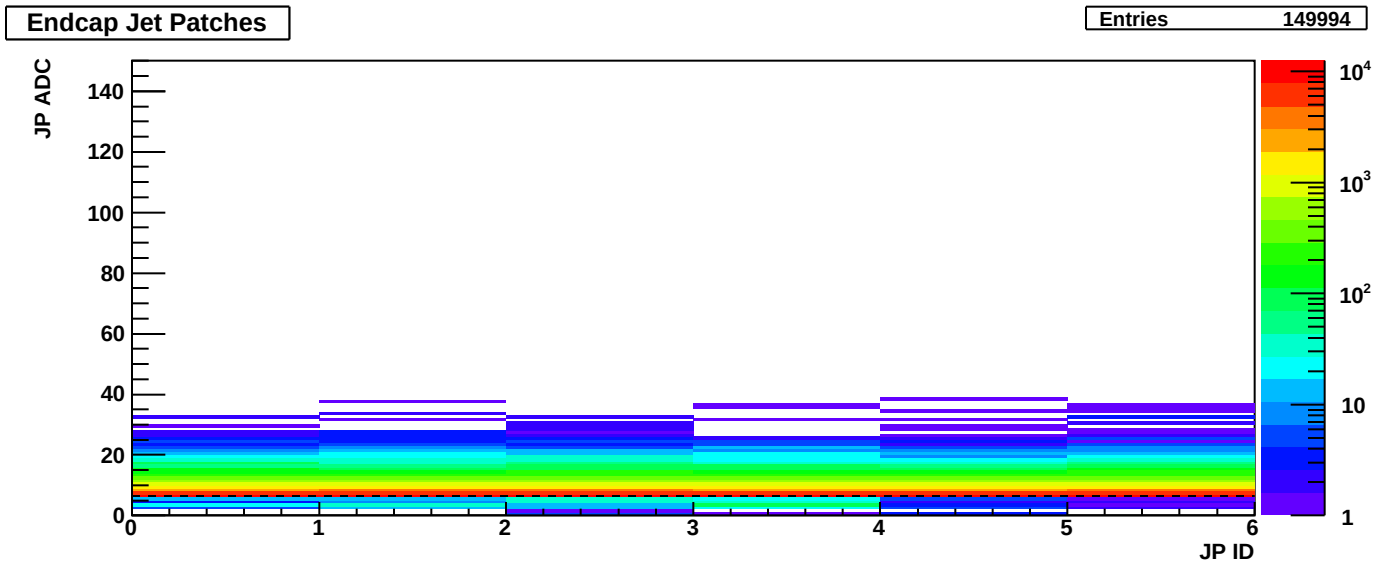

Barrel EMC L0 Input - High Tower
Entries 7499700
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

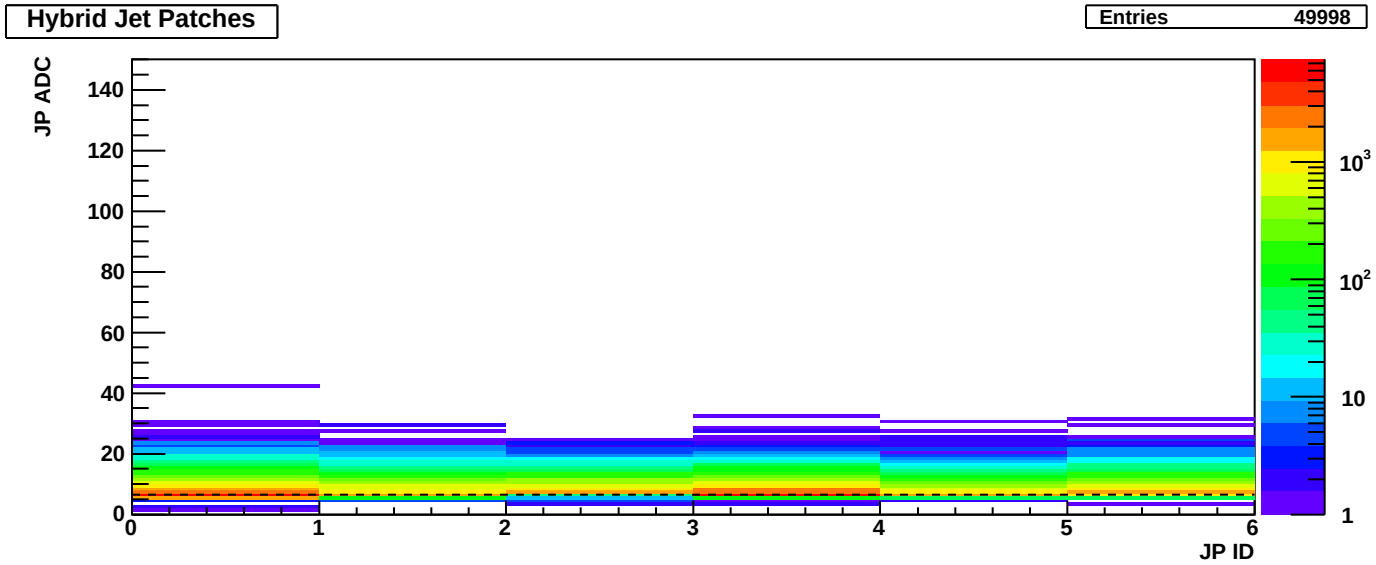

Barrel EMC L0 Input - Patch Sum
Entries 7499700
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

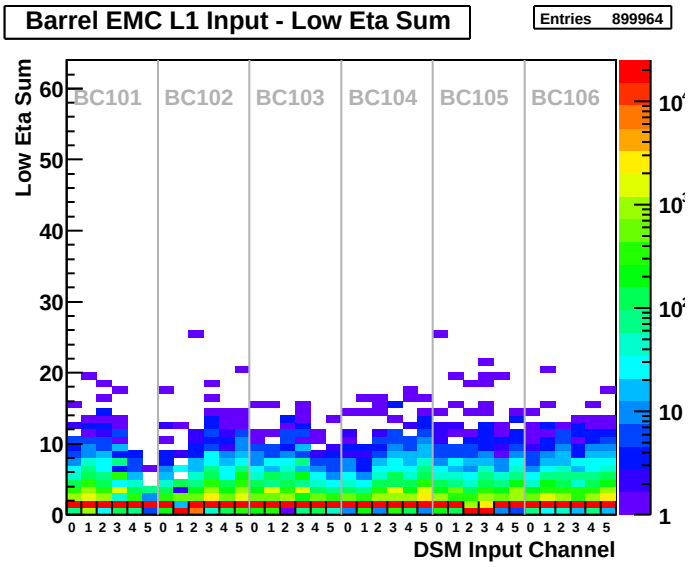

Endcap EMC L0 Input - High Tower
Entries 2249910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

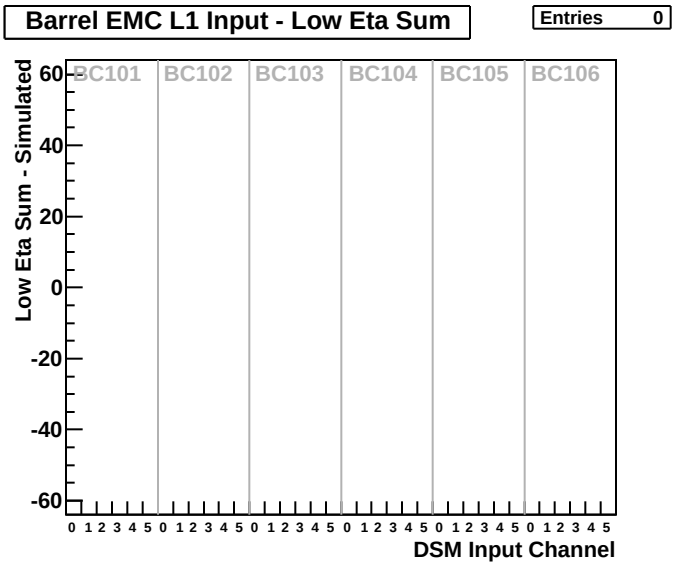

Endcap EMC L0 Input - Patch Sum
Entries 2249910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

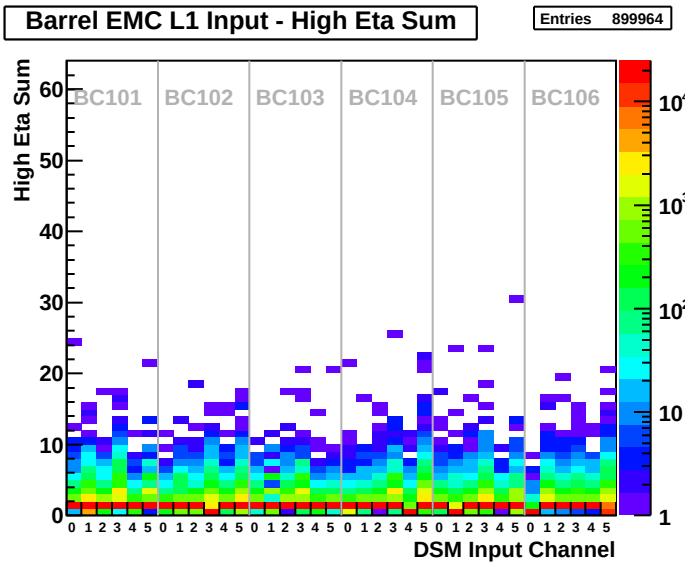

Barrel Jet Patches
Entries 449982
JP ADC
JP ID

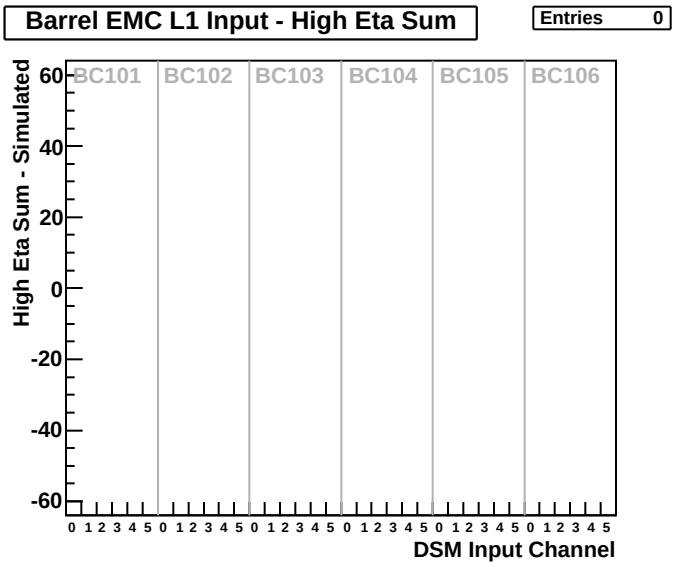

Endcap Jet Patches
Entries 149994
JP ADC
JP ID

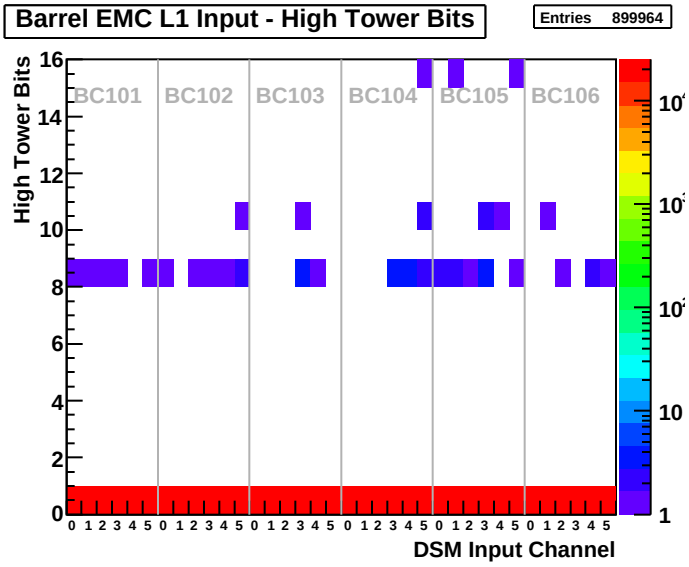

Hybrid Jet Patches
Entries 49998
JP ADC
JP ID

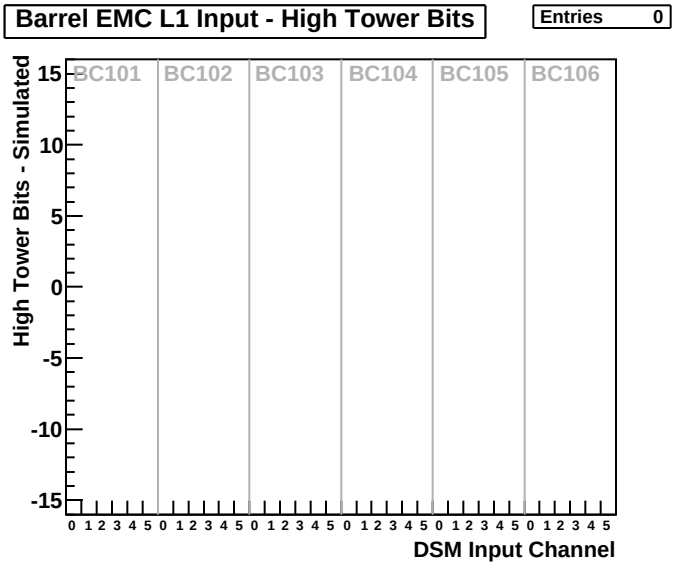

Barrel EMC L1 Input - Low Eta Sum
Entries 899964
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

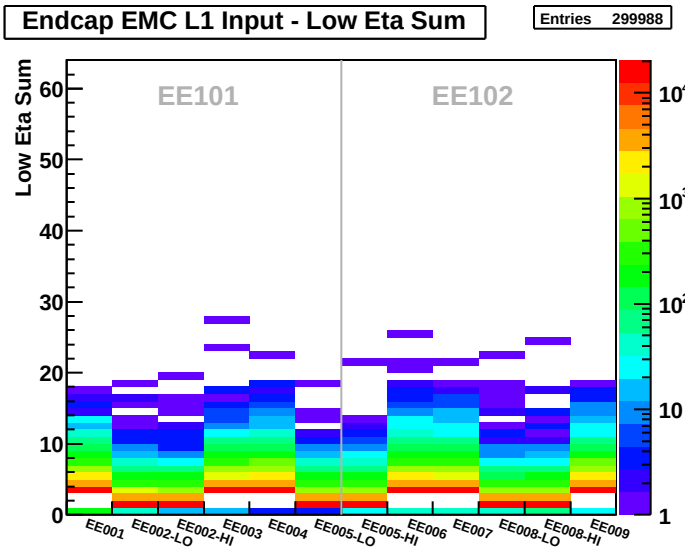

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

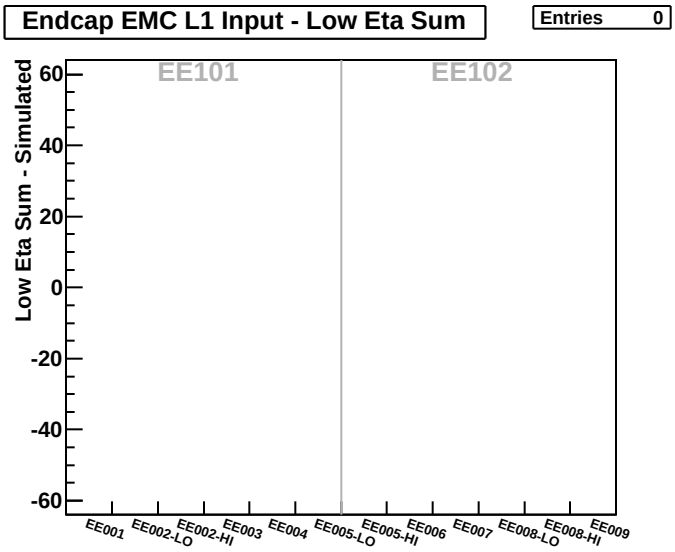

Barrel EMC L1 Input - High Eta Sum
Entries 899964
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

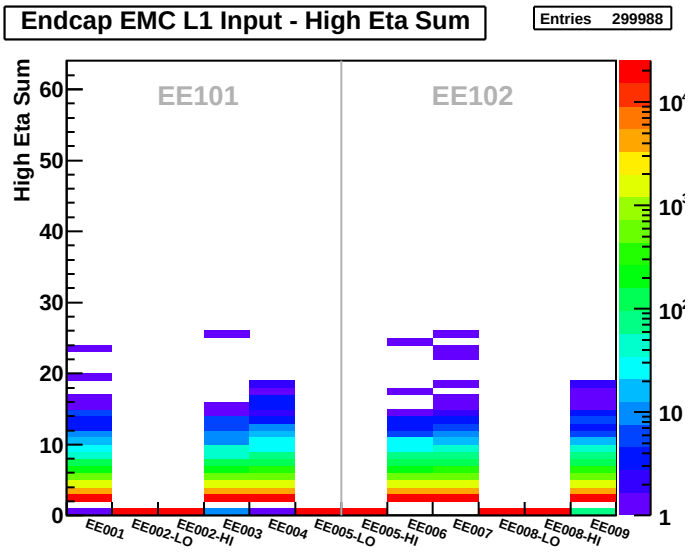

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

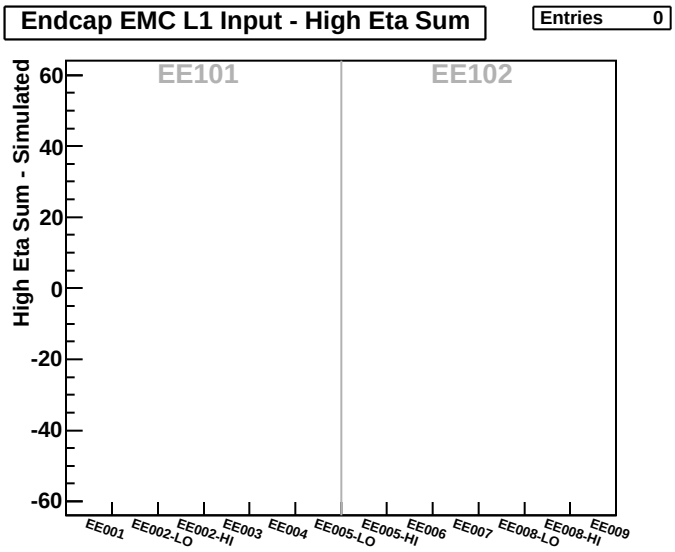

Barrel EMC L1 Input - High Tower Bits
Entries 899964
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

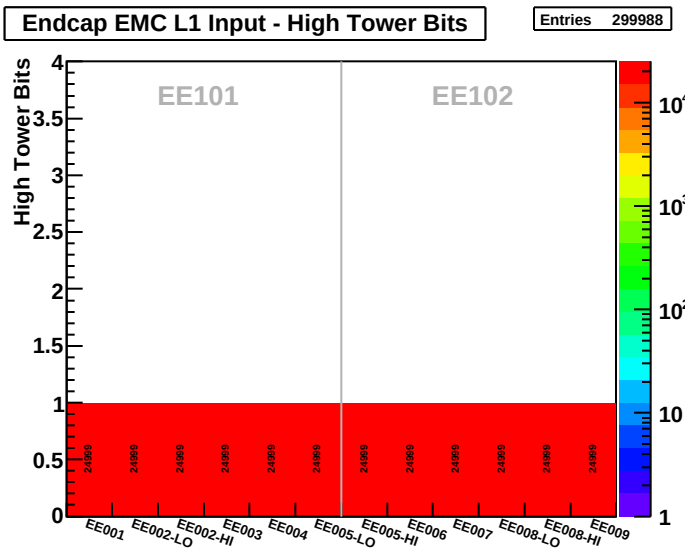

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

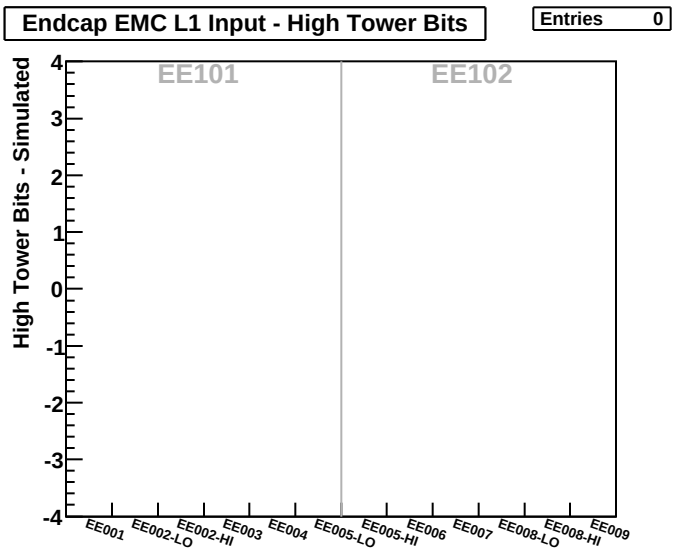

Endcap EMC L1 Input - Low Eta Sum
Entries 299988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

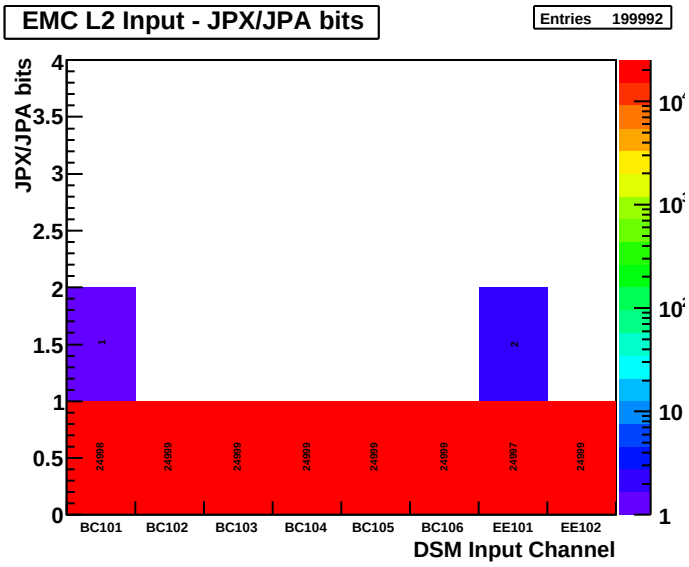

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

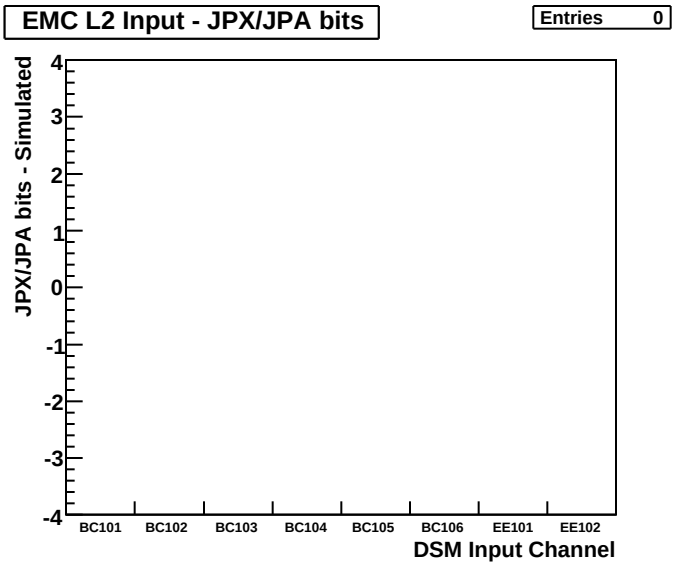

Endcap EMC L1 Input - High Eta Sum
Entries 299988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

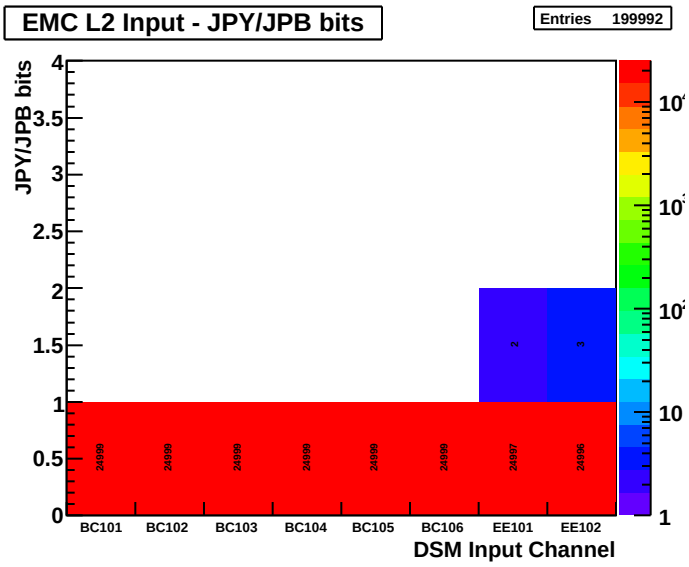

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

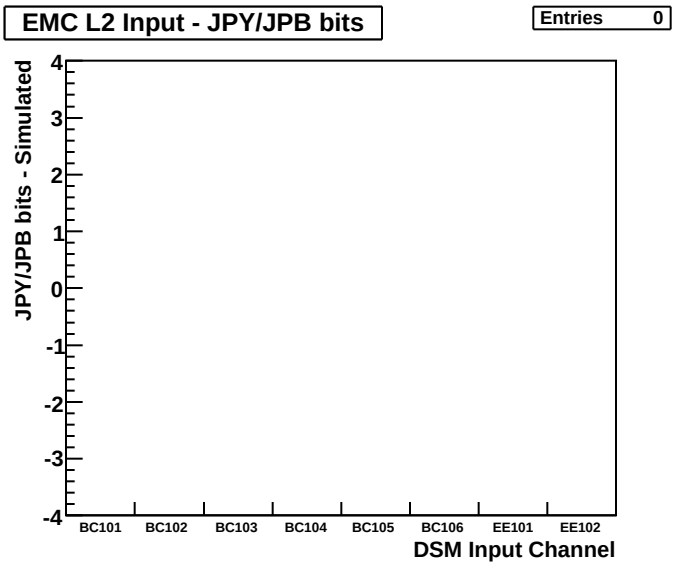

Endcap EMC L1 Input - High Tower Bits
Entries 299988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

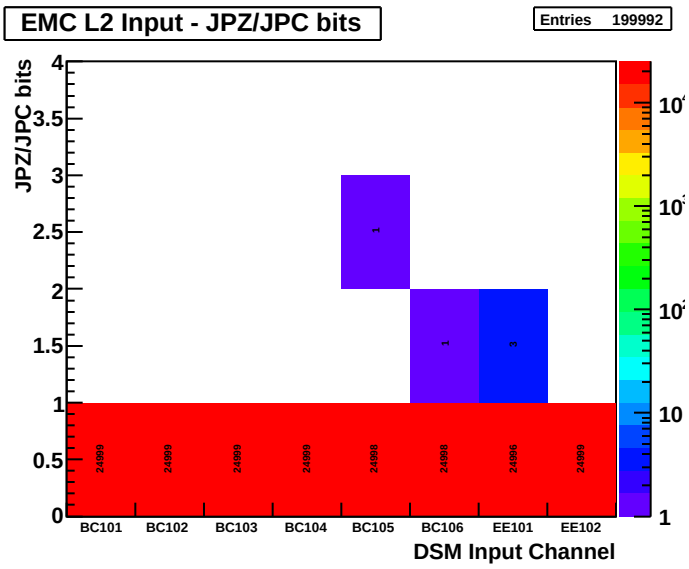

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

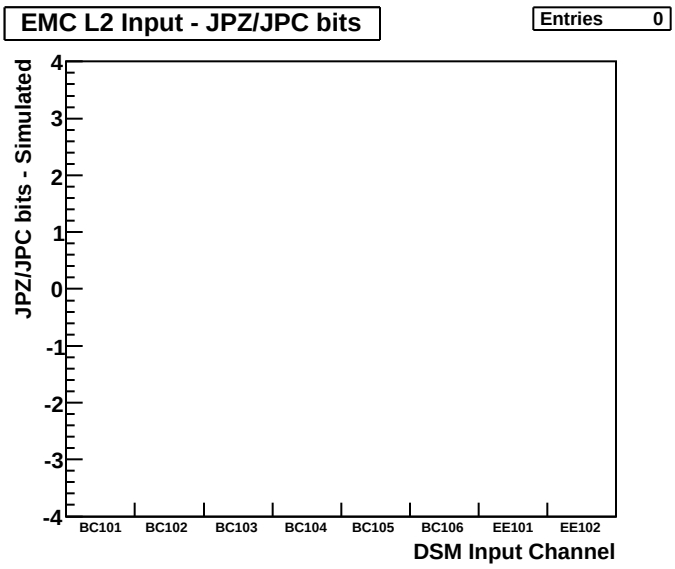

EMC L2 Input - JPX/JPA bits
Entries 199992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

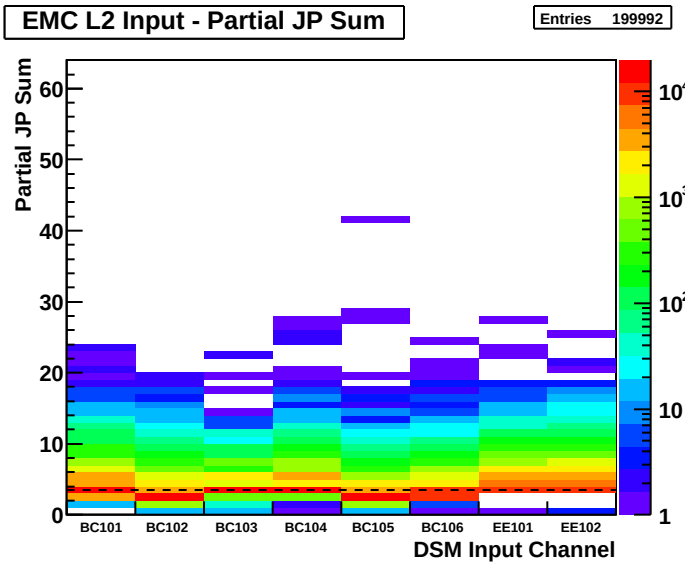

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

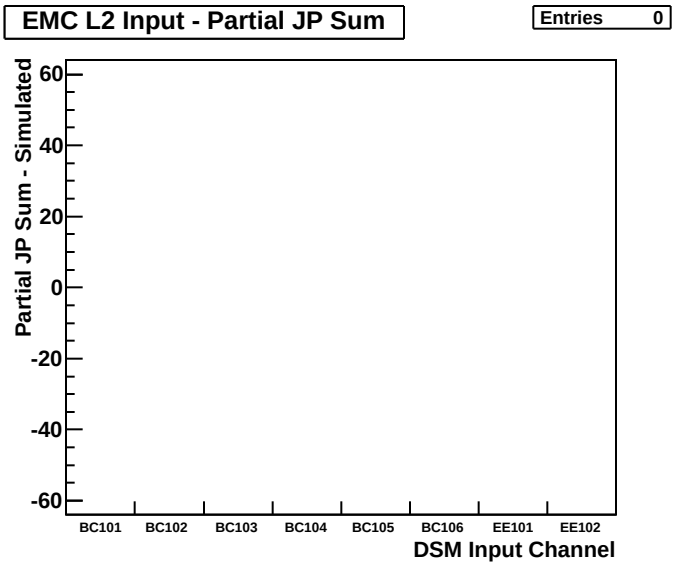

EMC L2 Input - JPY/JPB bits
Entries 199992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

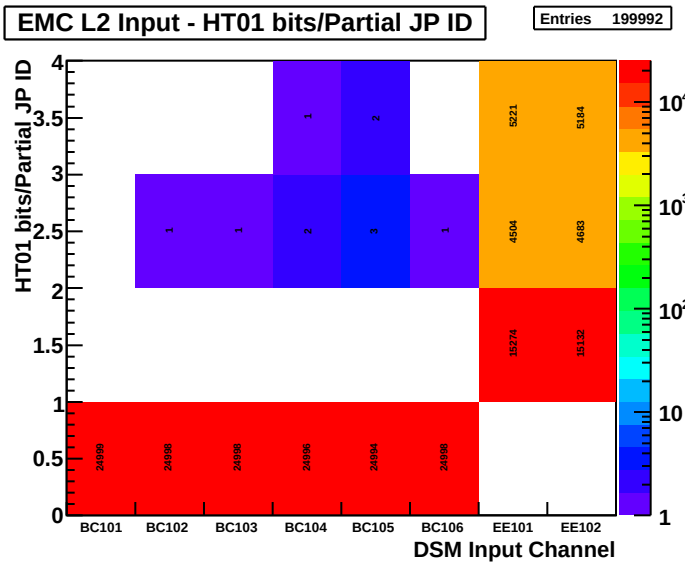

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

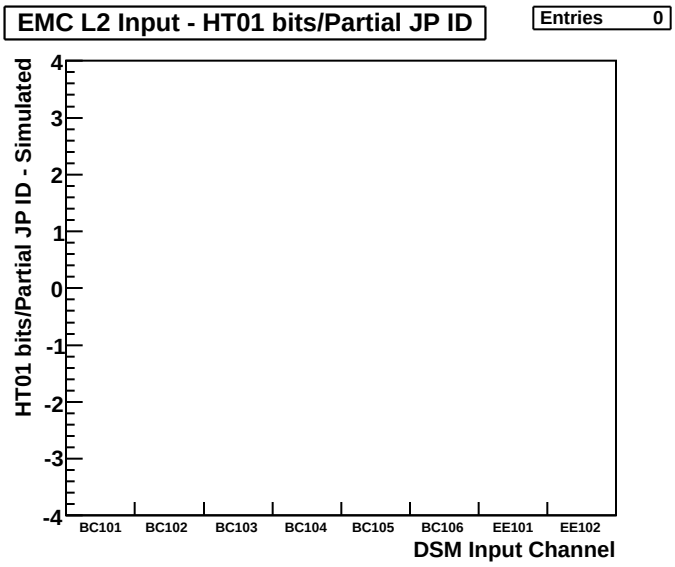

EMC L2 Input - JPZ/JPC bits
Entries 199992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

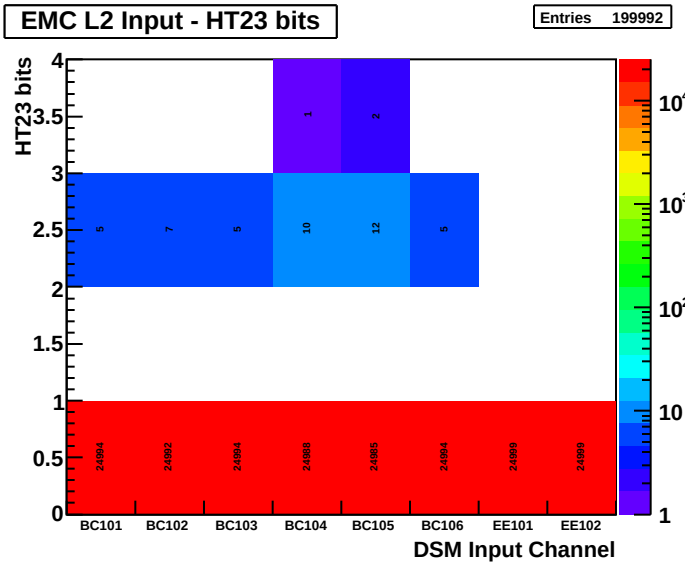

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

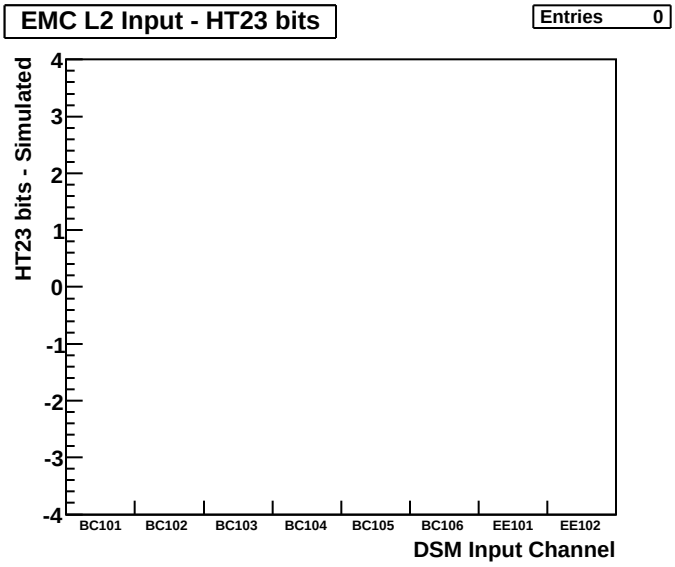

EMC L2 Input - Partial JP Sum
Entries 199992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

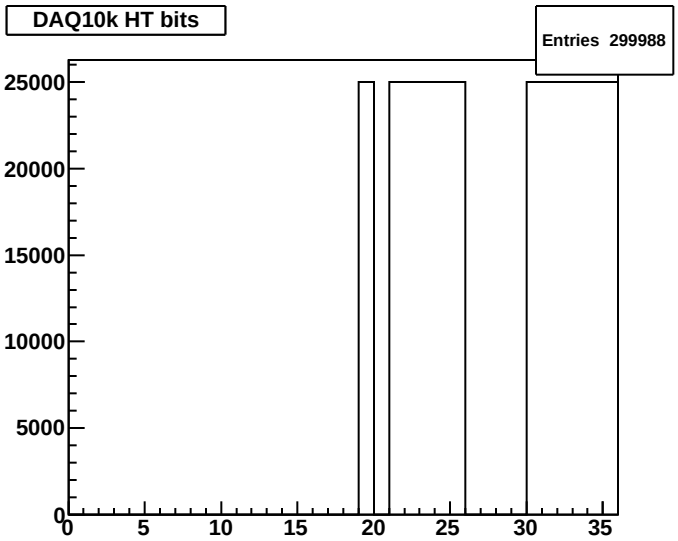

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

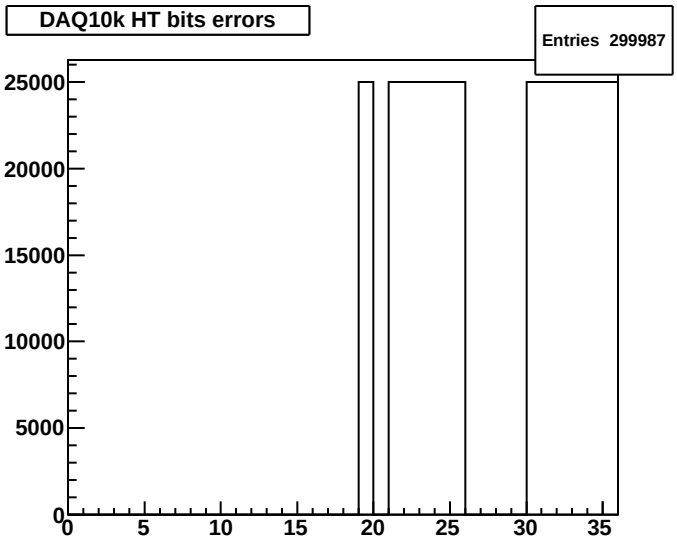

EMC L2 Input - HT01 bits/Partial JP ID
Entries 199992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

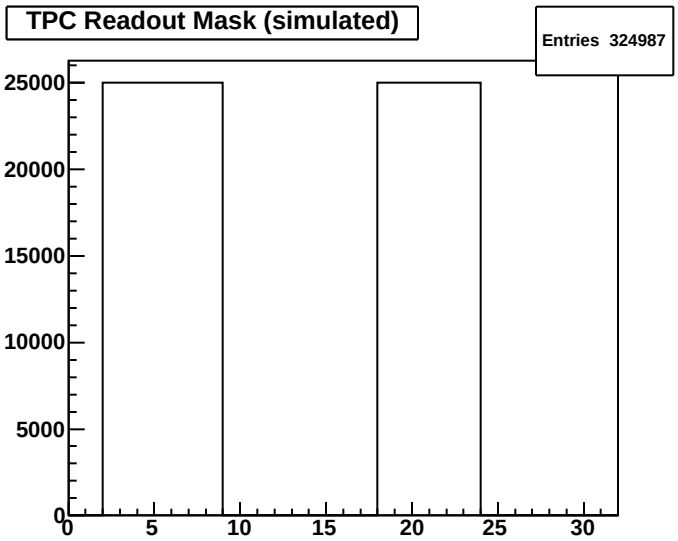

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

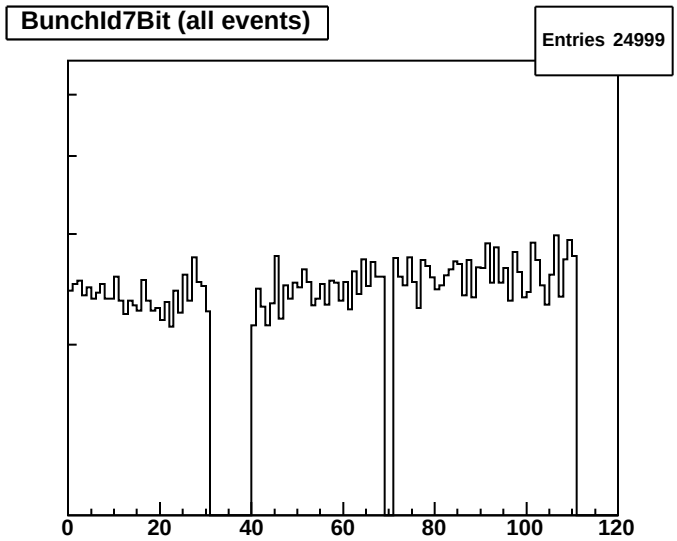

EMC L2 Input - HT23 bits
Entries 199992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

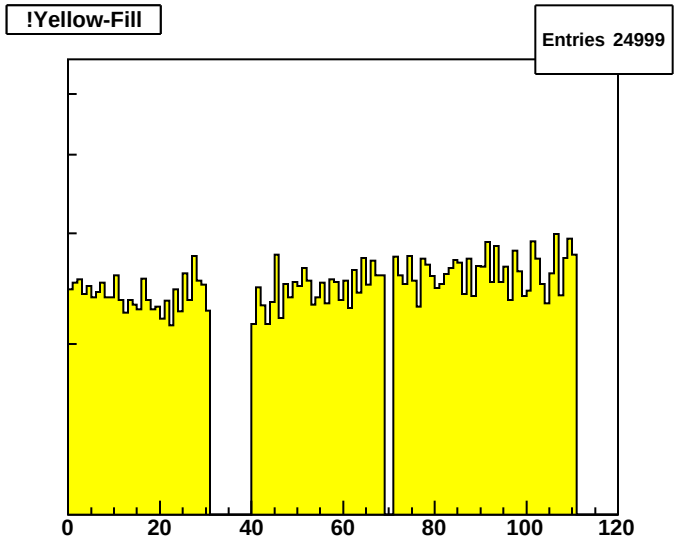

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

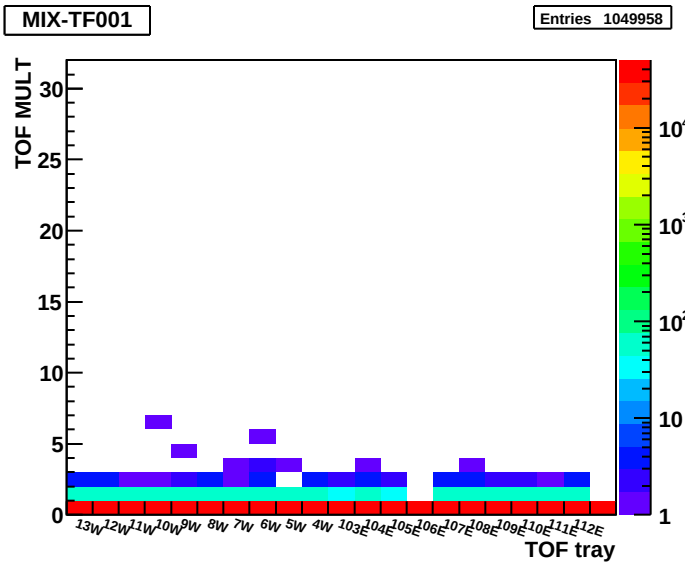

DAQ10k HT bits
Entries 299988
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

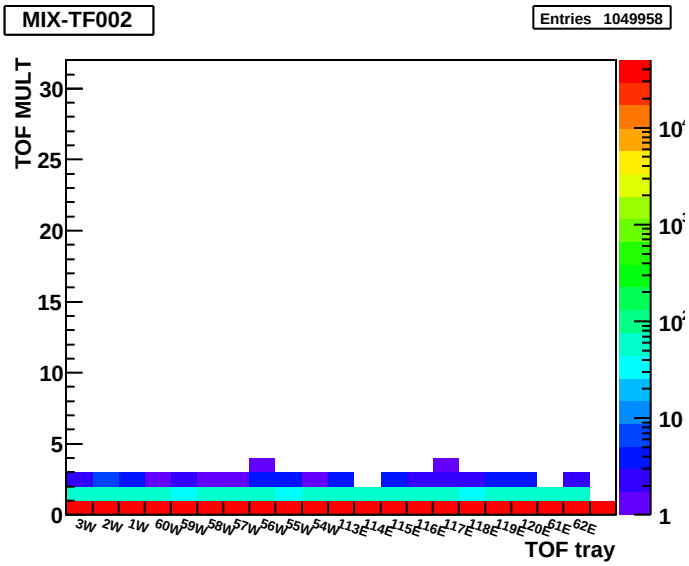

DAQ10k HT bits errors
Entries 299987
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

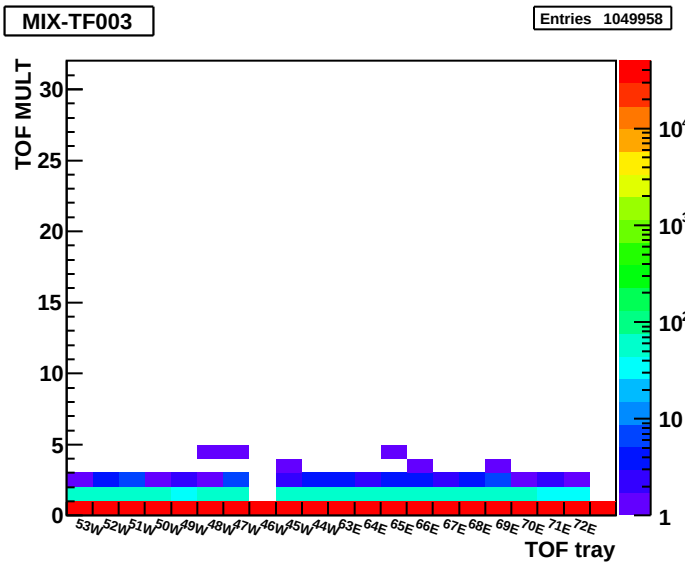

TPC Readout Mask (simulated)
Entries 324987
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

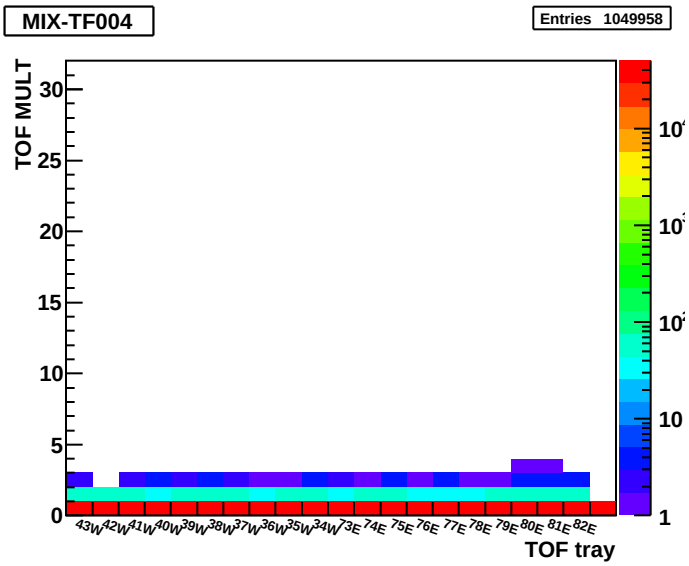

BunchId7Bit (all events)
Entries 24999
0 20 40 60 80 100 120

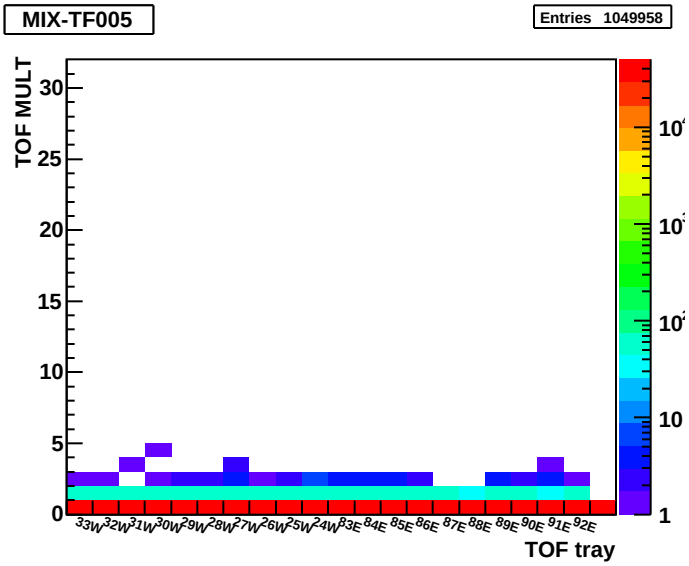

!Yellow-Fill
Entries 24999
0 20 40 60 80 100 120

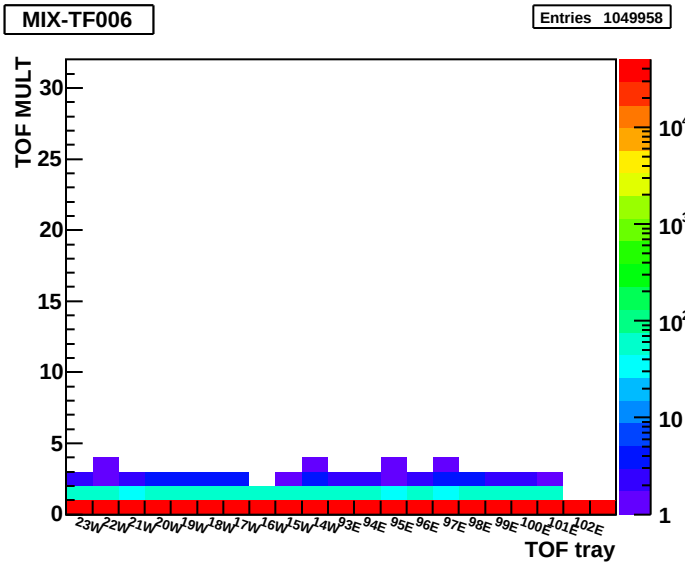

MIX-TF001
Entries 1049958
TOF MULT
TOF tray

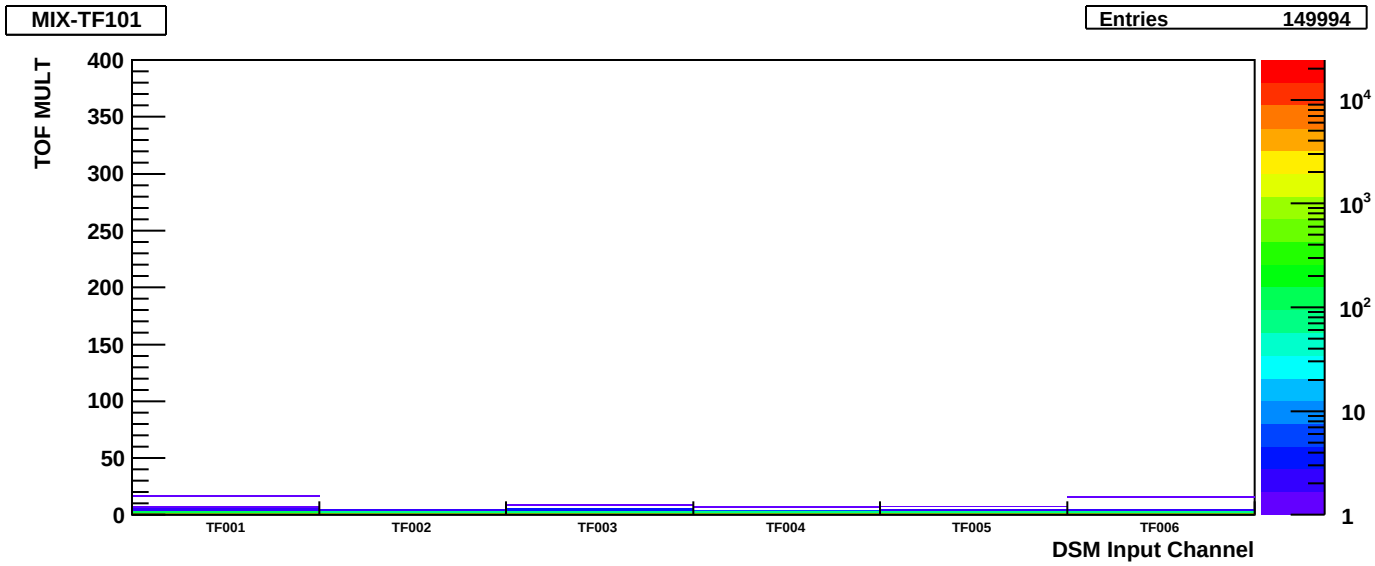

MIX-TF002
Entries 1049958
TOF MULT
TOF tray

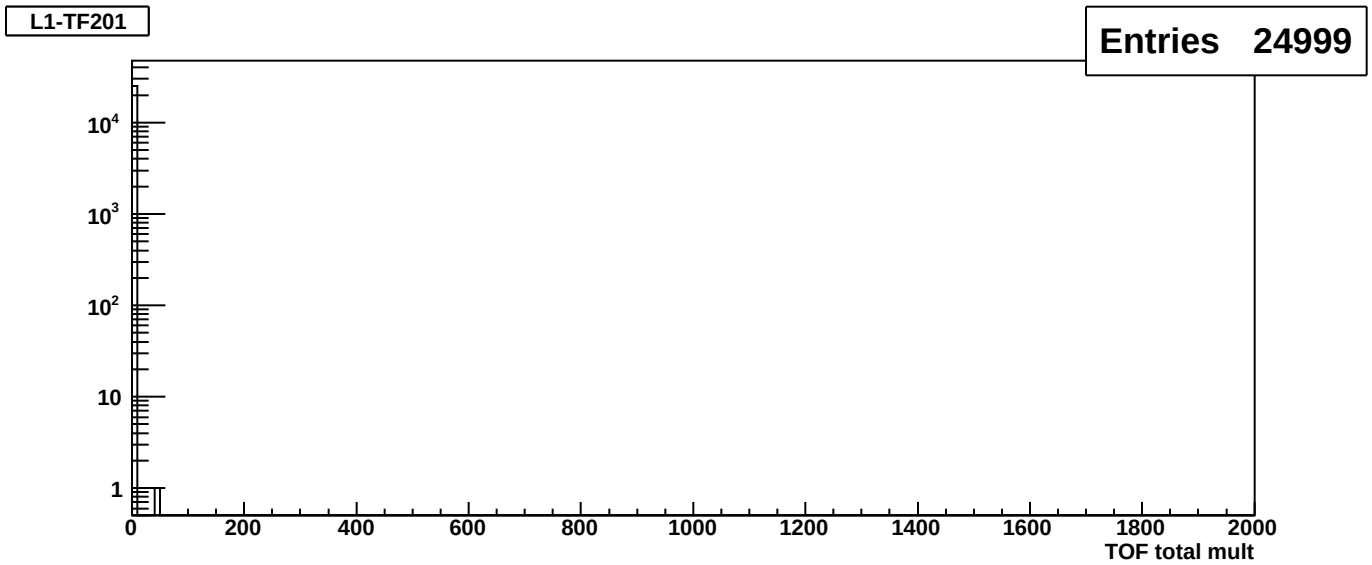

MIX-TF003
Entries 1049958
TOF MULT
TOF tray

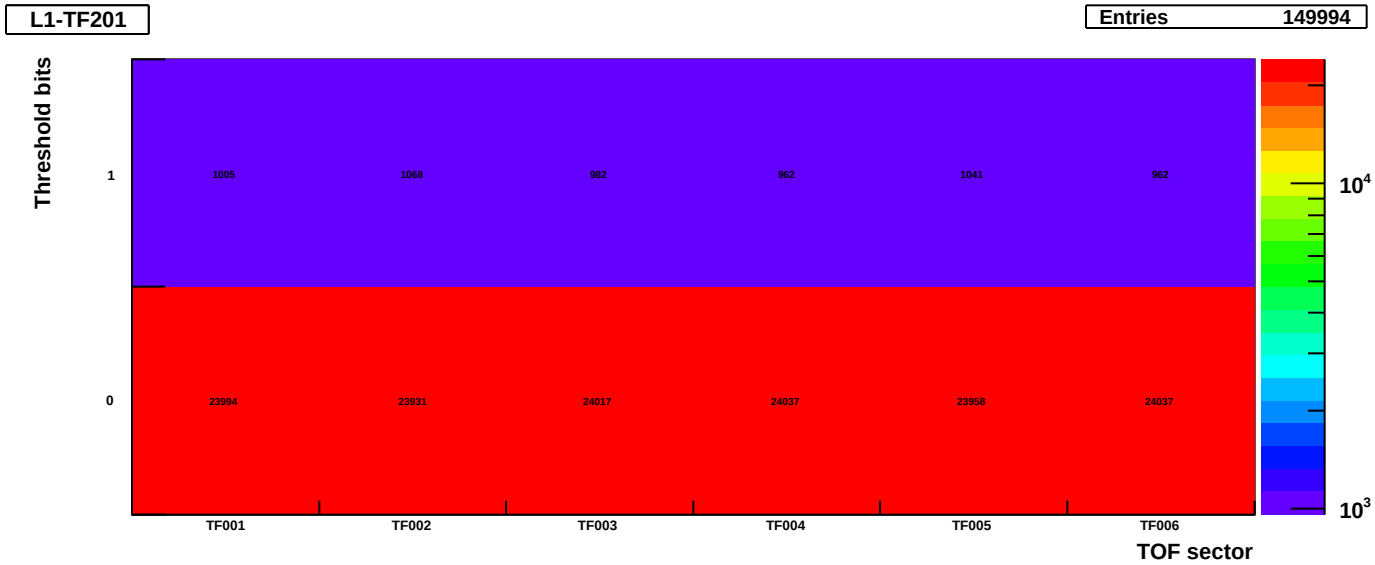

MIX-TF004
Entries 1049958
TOF MULT
TOF tray

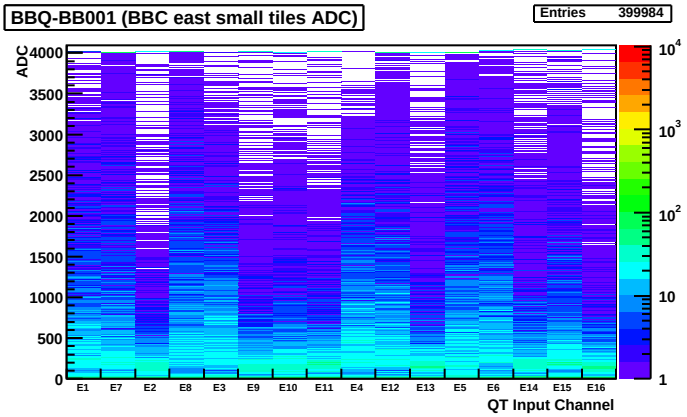

MIX-TF005
Entries 1049958
TOF MULT
TOF tray

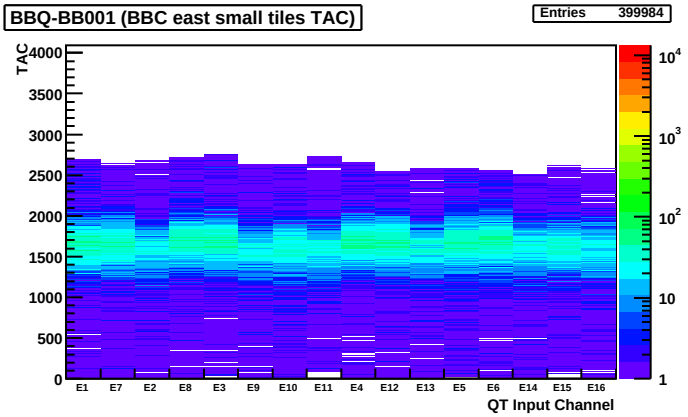

MIX-TF006
Entries 1049958
TOF MULT
TOF tray

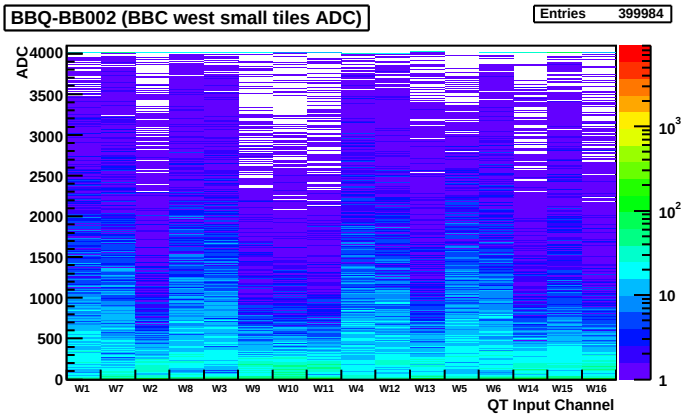

MIX-TF101
Entries 149994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

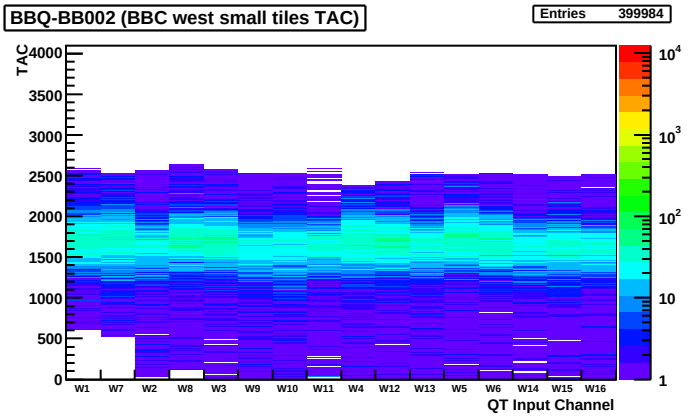

L1-TF201
Entries 24999
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

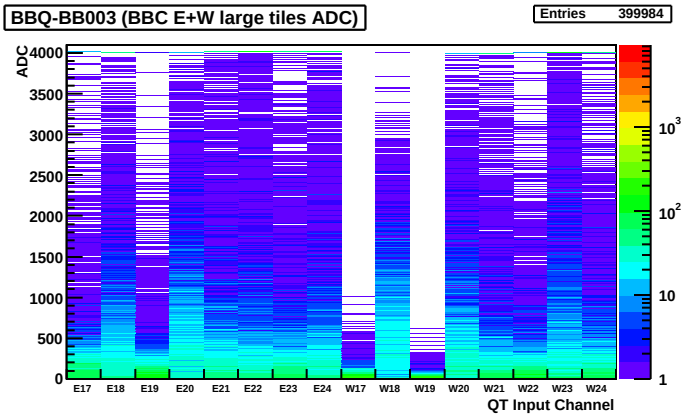

L1-TF201
Entries 149994
Threshold bits
1
0
1005
1068
982
962
1041
962
23994
23931
24017
24037
23958
24037
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

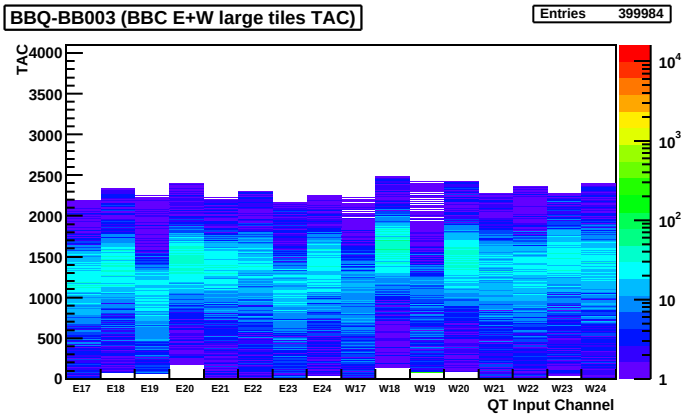

BBQ-BB001 (BBC east small tiles ADC)
Entries 399984
ADC
QT Input Channel

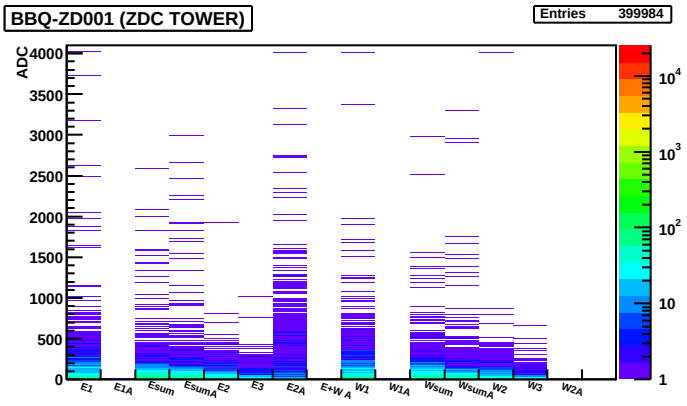

BBQ-BB001 (BBC east small tiles TAC)
Entries 399984
TAC
QT Input Channel

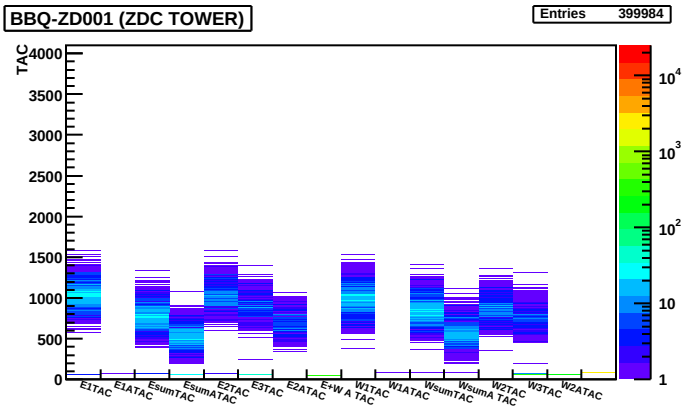

BBQ-BB002 (BBC west small tiles ADC)
Entries 399984
ADC
QT Input Channel

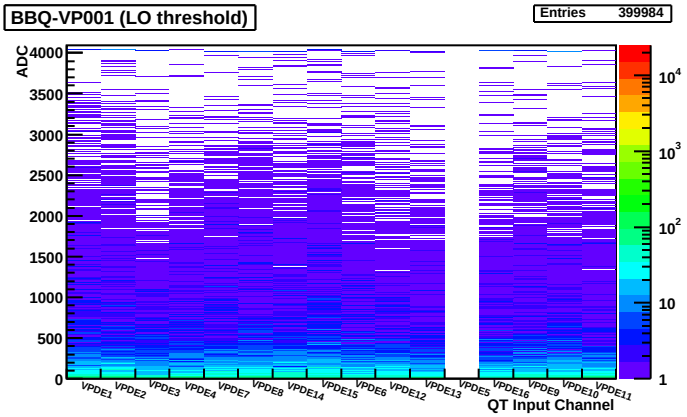

BBQ-BB002 (BBC west small tiles TAC)
Entries 399984
TAC
QT Input Channel

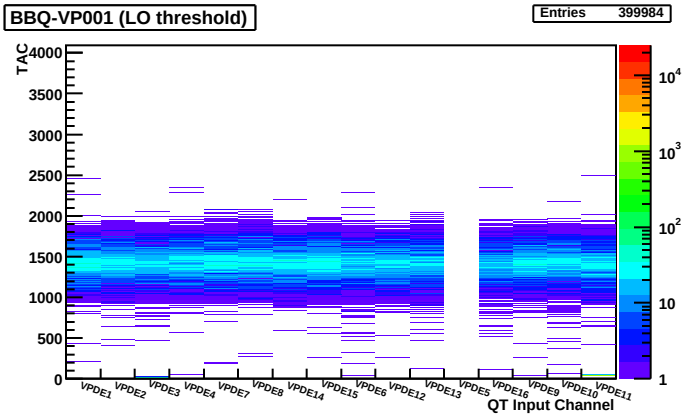

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 399984
ADC
QT Input Channel

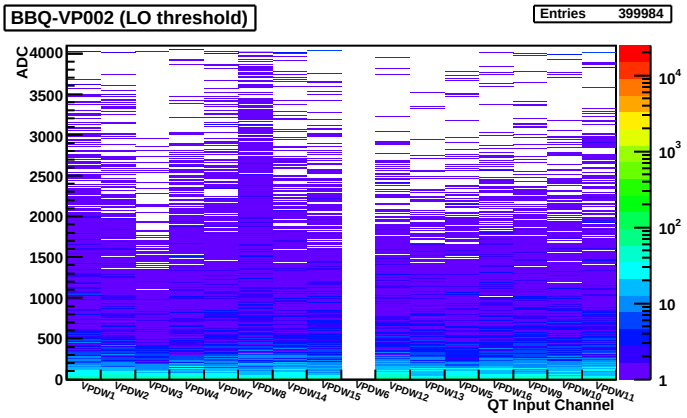

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 399984
TAC
QT Input Channel

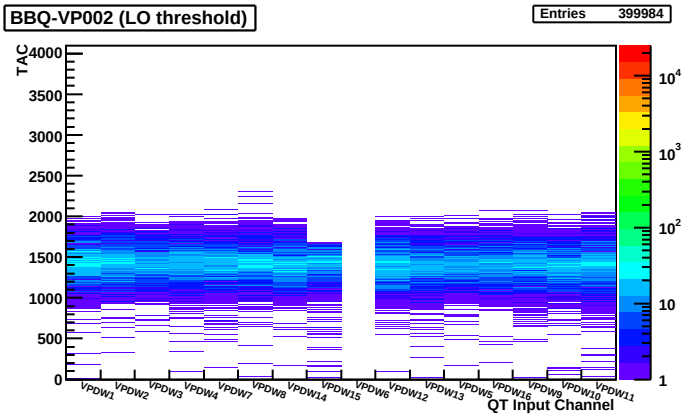

BBQ-ZD001 (ZDC TOWER)
Entries 399984
ADC

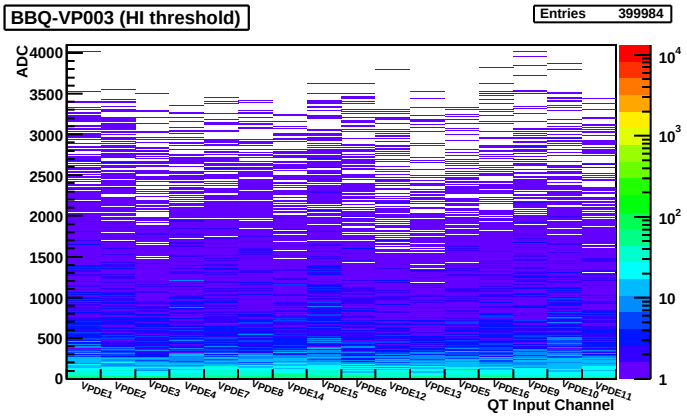

BBQ-ZD001 (ZDC TOWER)
Entries 399984
TAC

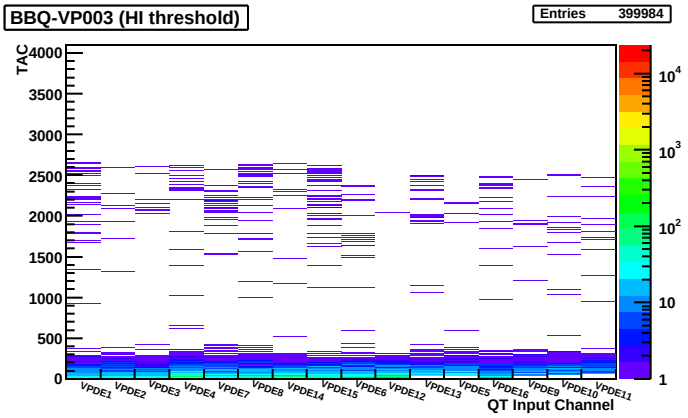

BBQ-VP001 (LO threshold)
Entries 399984
ADC
QT Input Channel

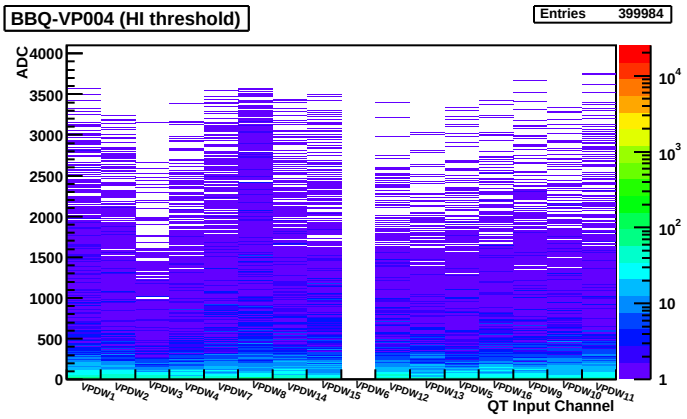

BBQ-VP001 (LO threshold)
Entries 399984
TAC
QT Input Channel

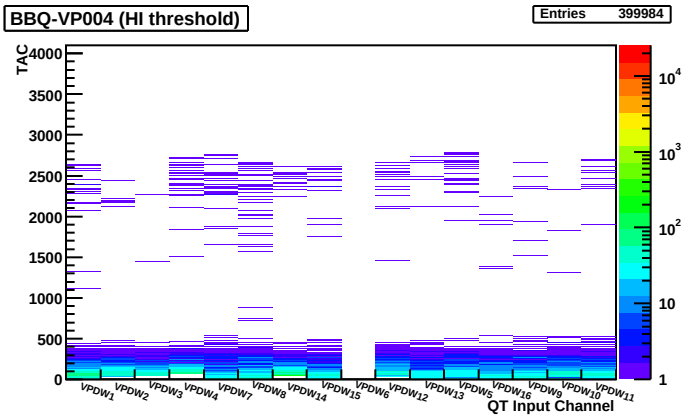

BBQ-VP002 (LO threshold)
Entries 399984
ADC
QT Input Channel

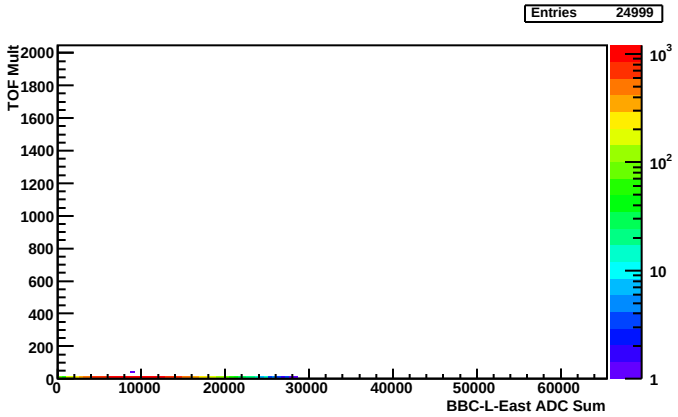

BBQ-VP002 (LO threshold)
Entries 399984
TAC
QT Input Channel

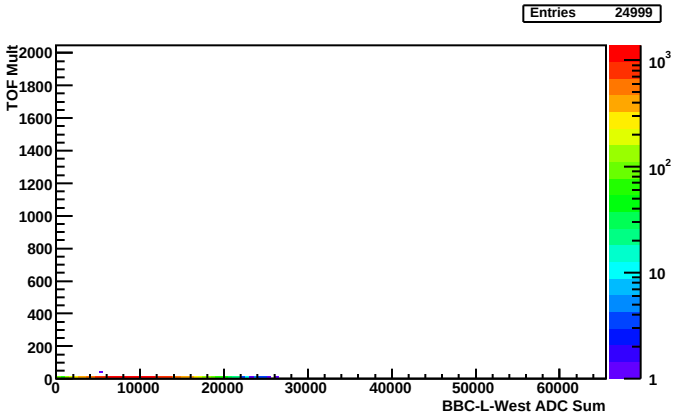

BBQ-VP003 (HI threshold)
Entries 399984
ADC
QT Input Channel

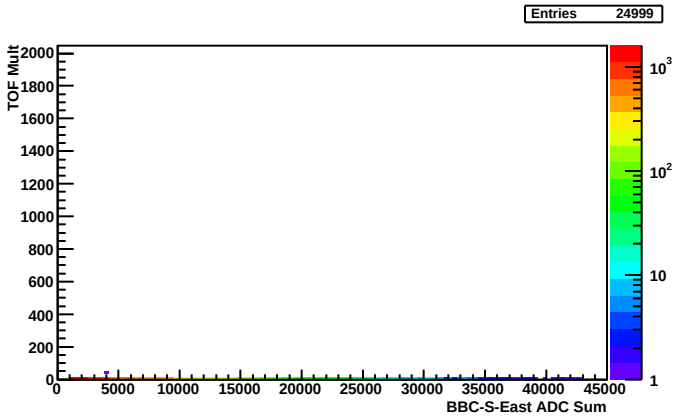

BBQ-VP003 (HI threshold)
Entries 399984
TAC
QT Input Channel

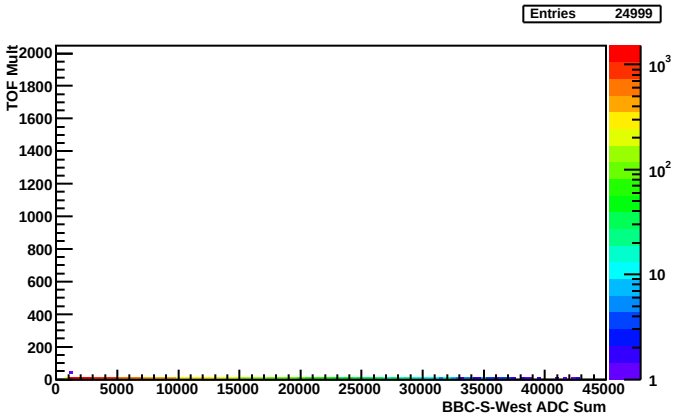

BBQ-VP004 (HI threshold)
Entries 399984
ADC
QT Input Channel

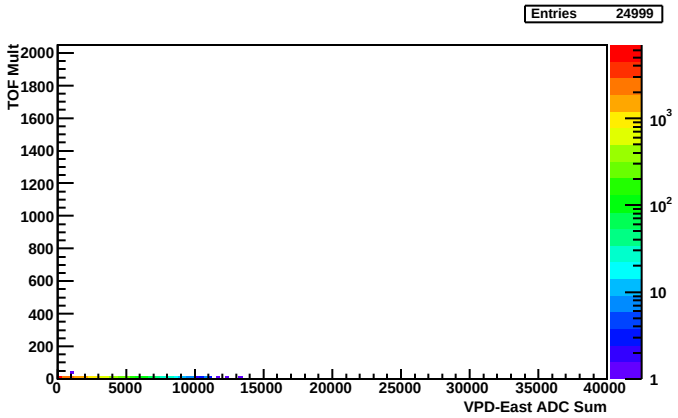

BBQ-VP004 (HI threshold)
Entries 399984
TAC
QT Input Channel

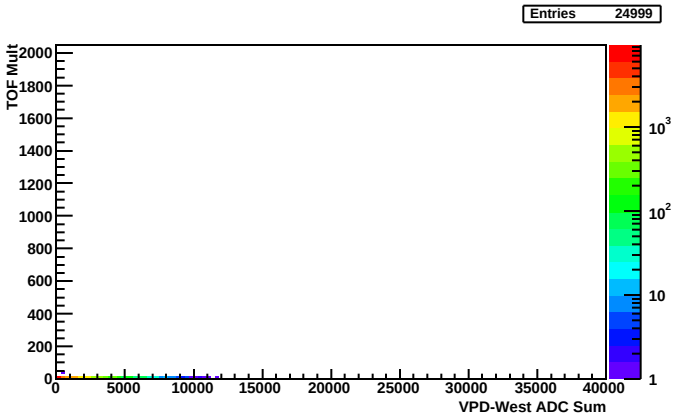

Entries 24999
TOF Mult
BBC-L-East ADC Sum

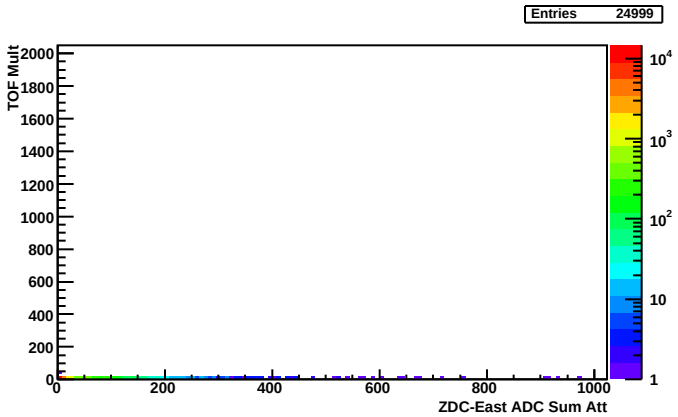

Entries 24999
TOF Mult
BBC-L-West ADC Sum

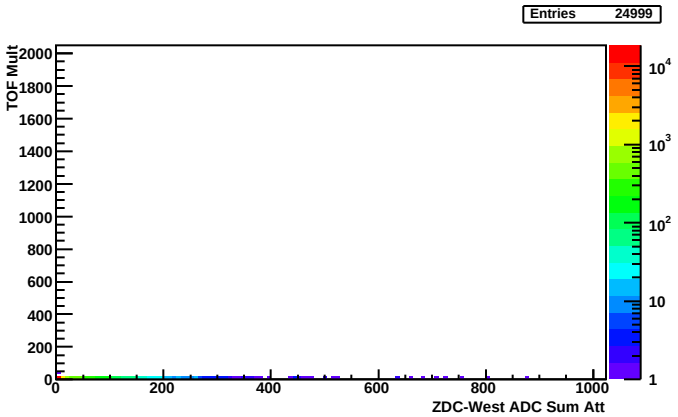

Entries 24999
TOF Mult
BBC-S-East ADC Sum

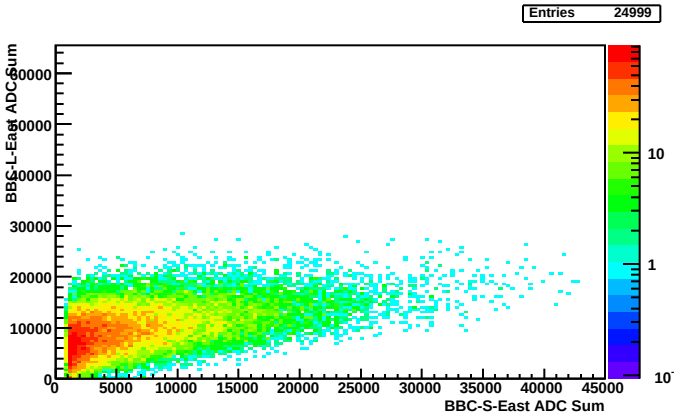

Entries 24999
TOF Mult
BBC-S-West ADC Sum

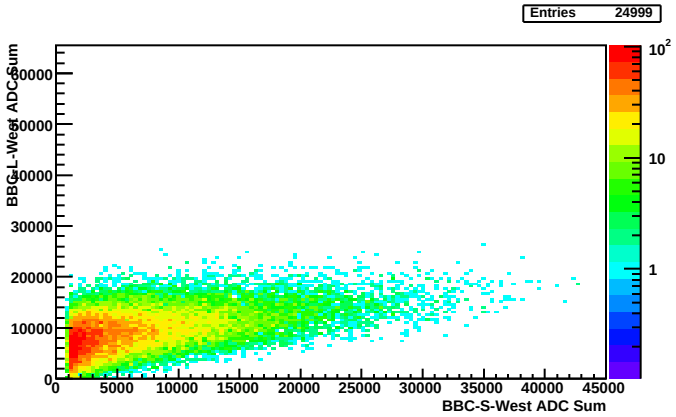

Entries 24999
TOF Mult
VPD-East ADC Sum

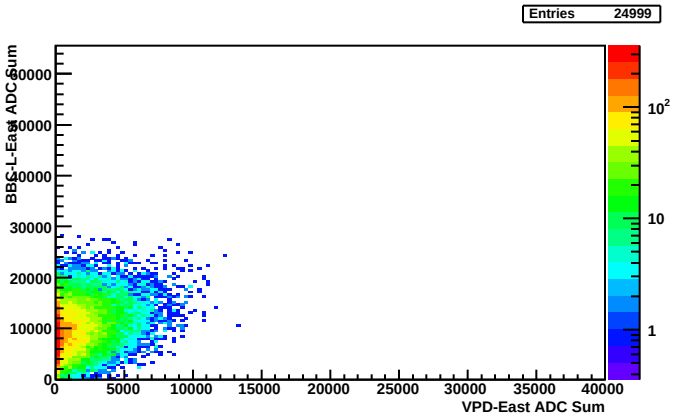

Entries 24999
TOF Mult
VPD-West ADC Sum

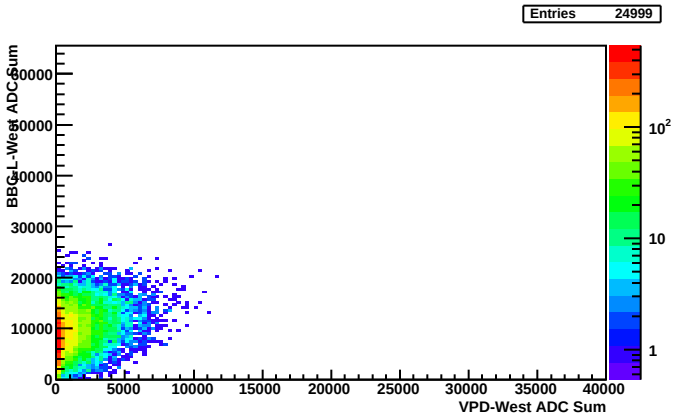

Entries 24999
TOF Mult
ZDC-East ADC Sum Att

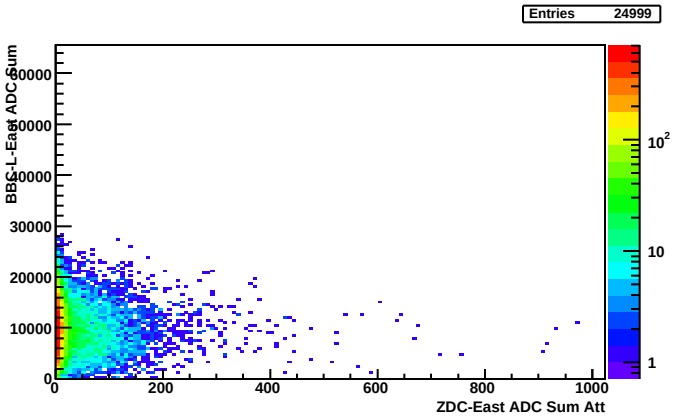

Entries 24999
TOF Mult
ZDC-West ADC Sum Att

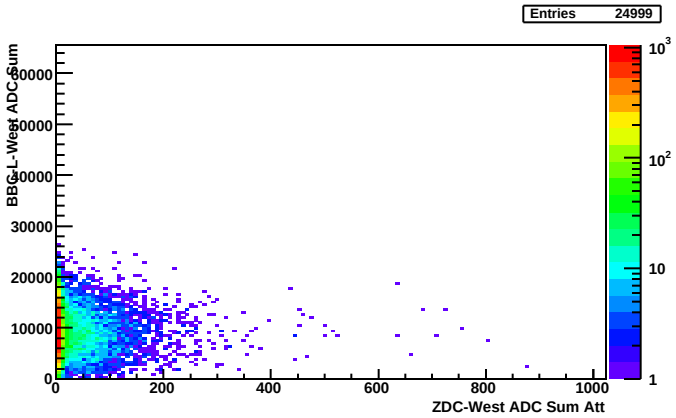

Entries 24999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

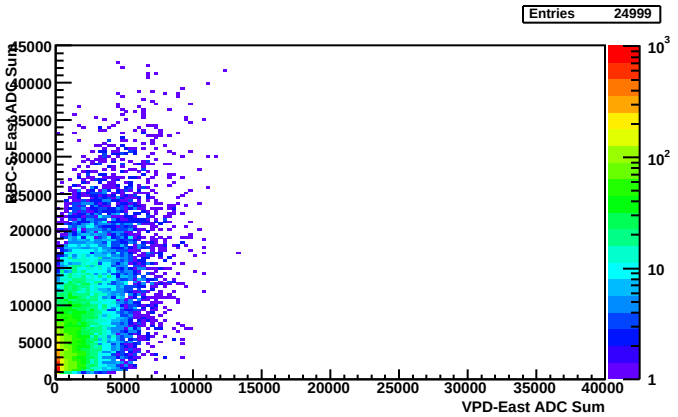

Entries 24999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

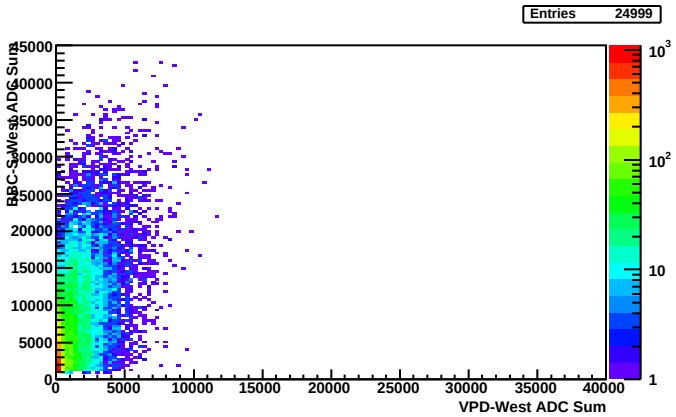

Entries 24999
BBC-L-East ADC Sum
VPD-East ADC Sum

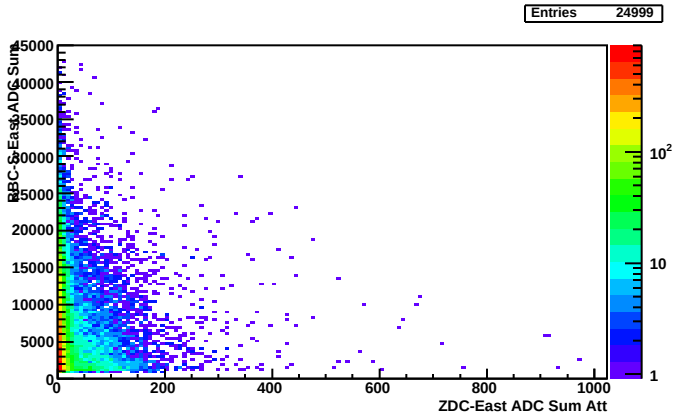

Entries 24999
BBC-L-West ADC Sum
VPD-West ADC Sum

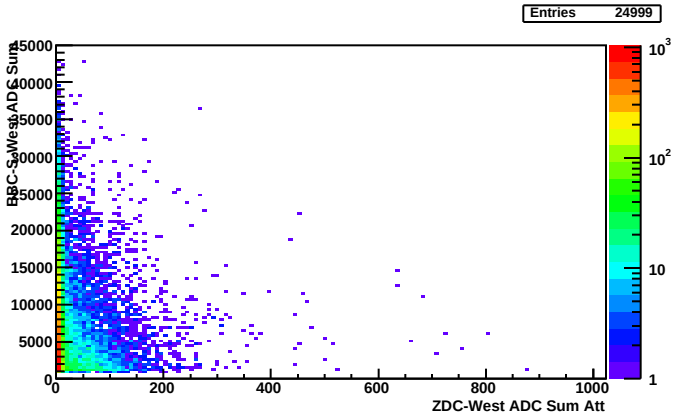

Entries 24999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

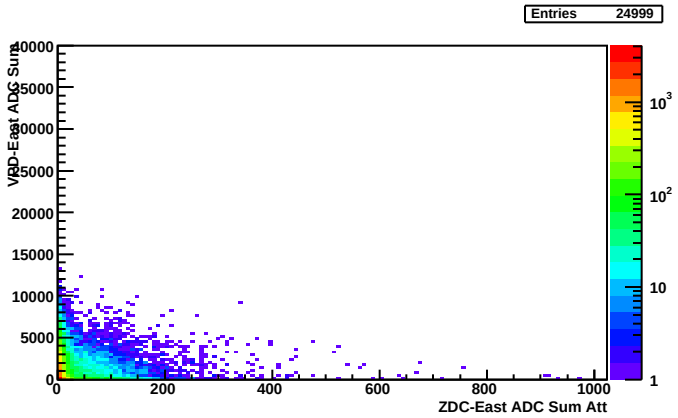

Entries 24999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

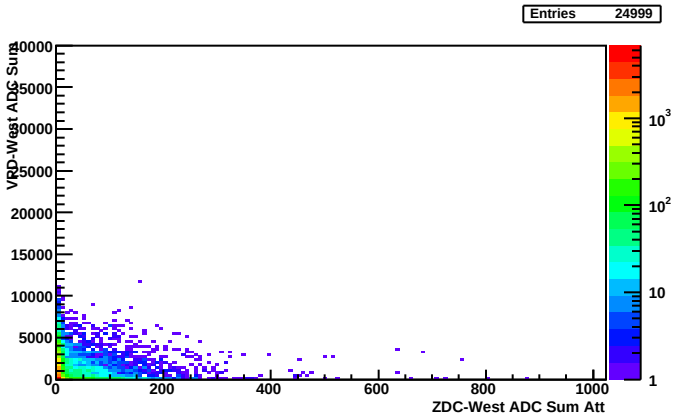

Entries 24999
BBC-S-East ADC Sum
VPD-East ADC Sum

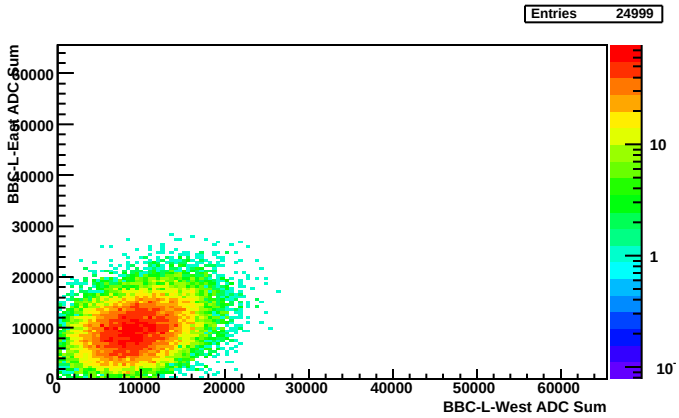

Entries 24999
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 24999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 24999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 24999
VPD-East ADC Sum
ZDC-East ADC Sum Att


Entries 24999
VPD-West ADC Sum
ZDC-West ADC Sum Att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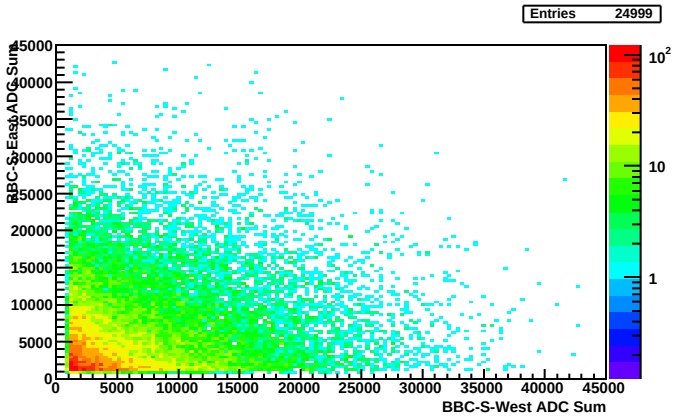
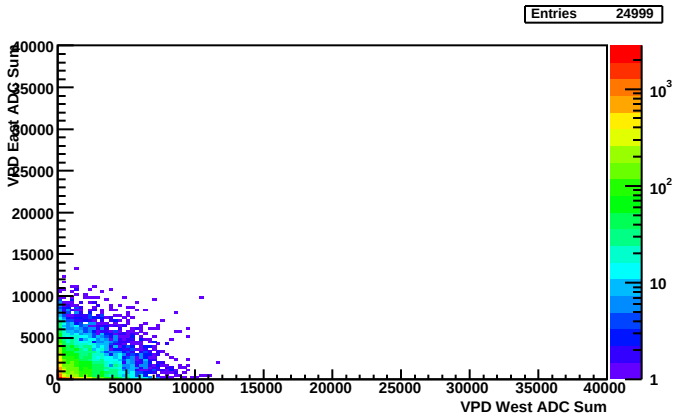
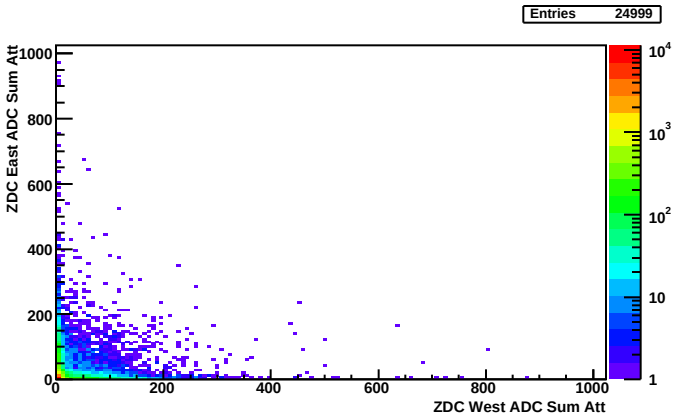
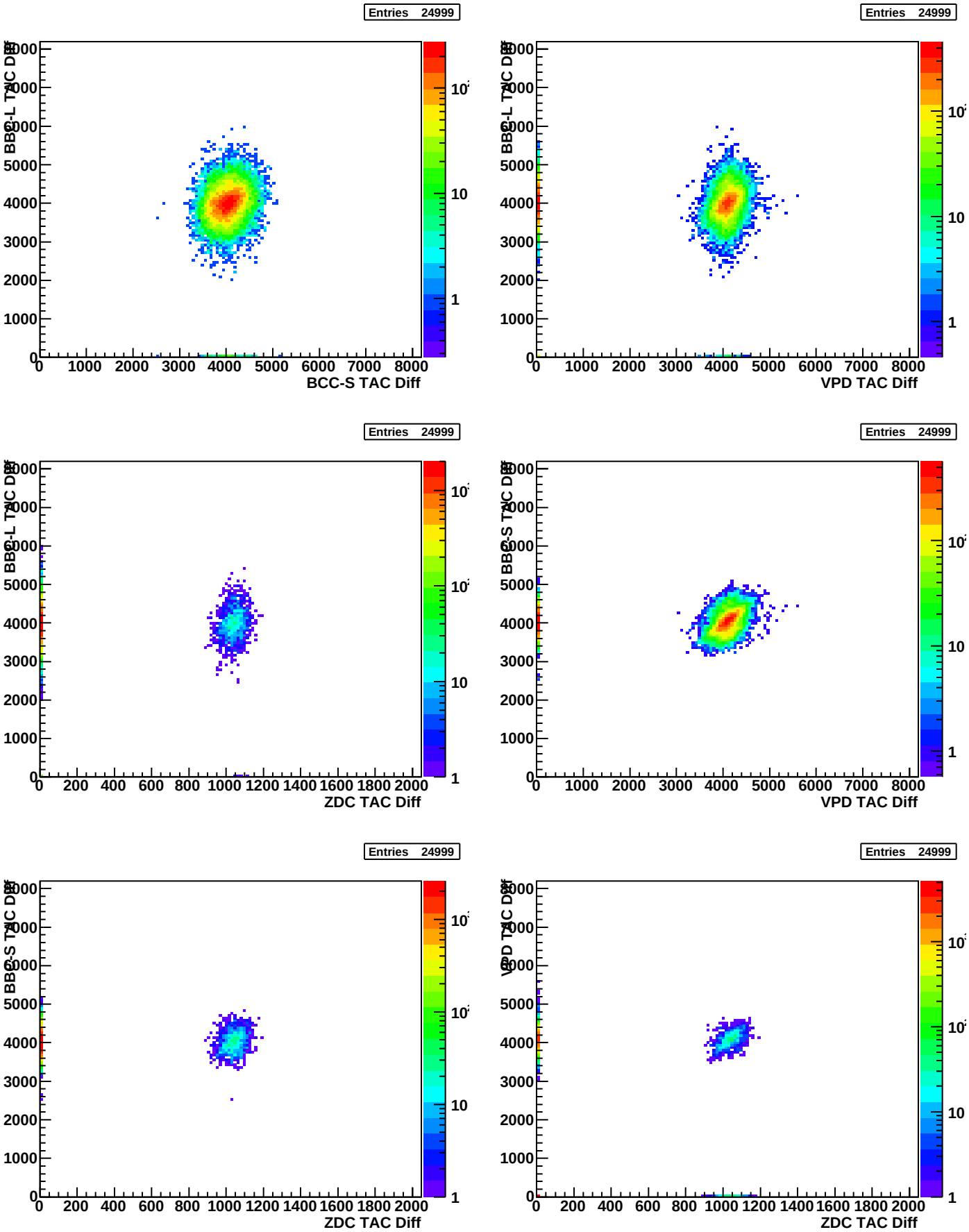
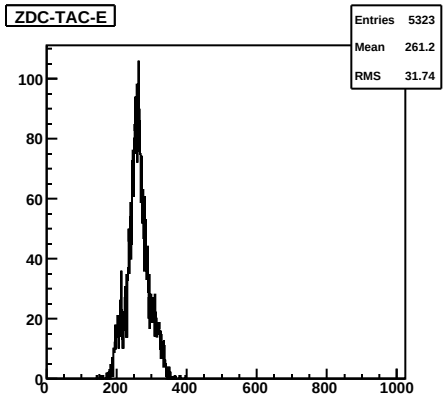
BBC-L-East ADC Sum
BBC-L-West ADC Sum

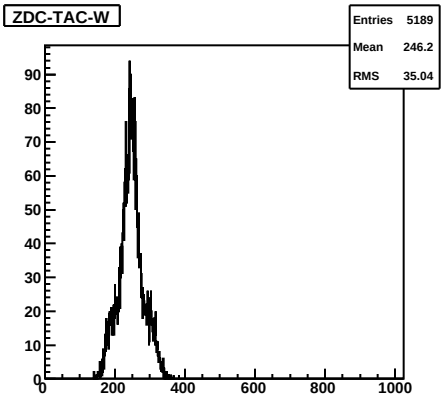

Entries 24999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

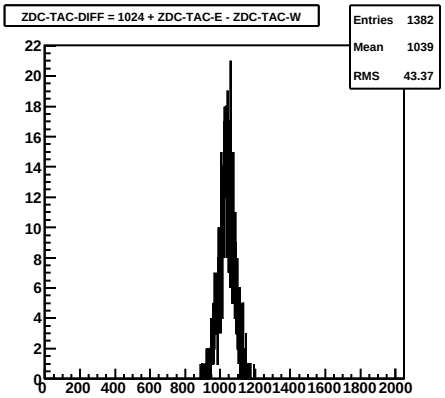

Entries 24999
VPD East ADC Sum
VPD West ADC Sum

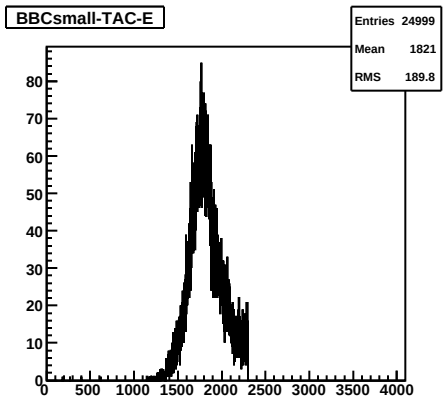

Entries 24999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

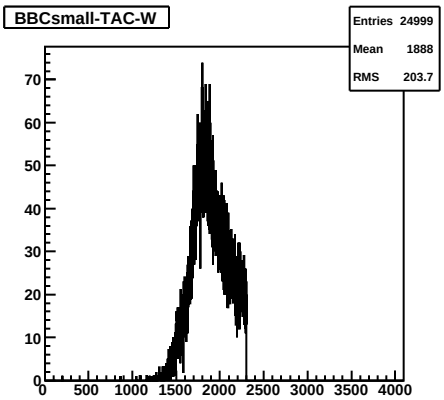

Entries 24999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 24999
BBC-L TAC Diff
VPD TAC Diff
Entries 24999
BBC-L TAC Diff
ZDC TAC Diff
Entries 24999
BBC-S TAC Diff
VPD TAC Diff
Entries 24999
BBC-S TAC Diff
ZDC TAC Diff
Entries 24999
VPD TAC Diff
ZDC TAC Diff

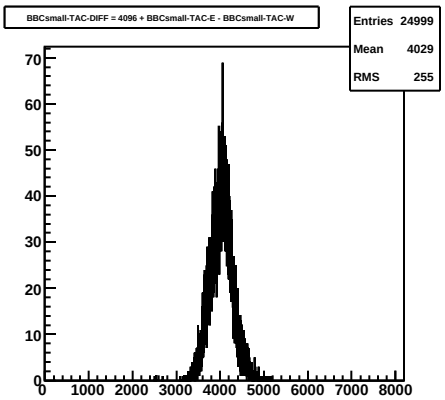

ZDC-TAC-E
Entries 5323
Mean 261.2
RMS 31.74

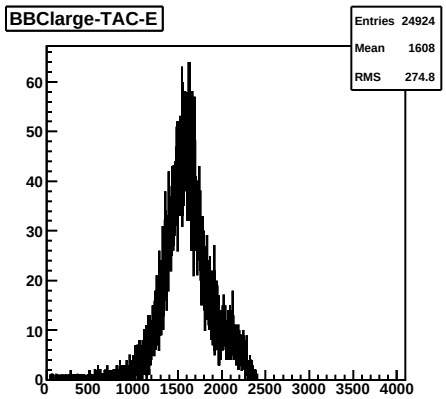

ZDC-TAC-W
Entries 5189
Mean 246.2
RMS 35.04

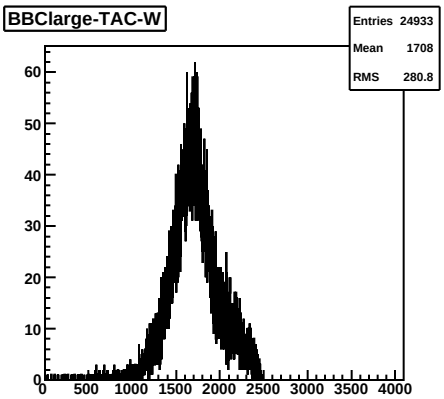

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1382
Mean 1039
RMS 43.37

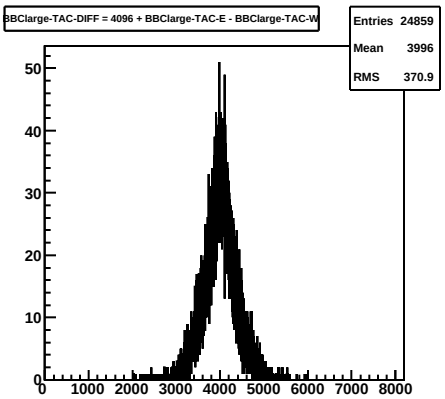

BBCsmall-TAC-E
Entries 24999
Mean 1821
RMS 189.8

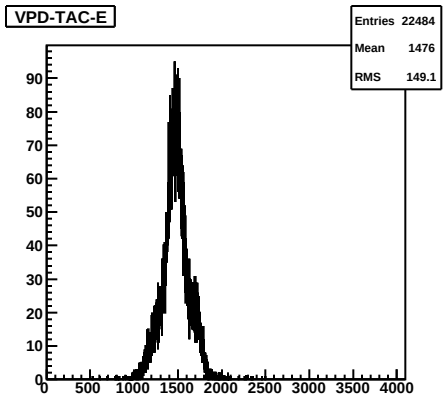

BBCsmall-TAC-W
Entries 24999
Mean 1888
RMS 203.7

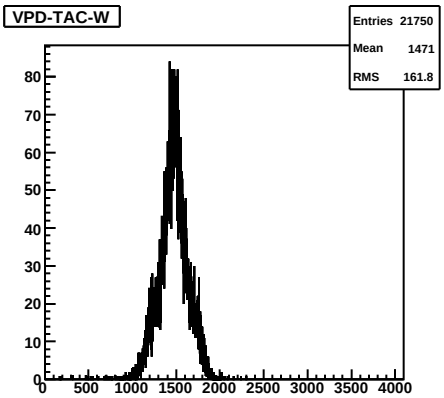

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 24999
Mean 4029
RMS 255

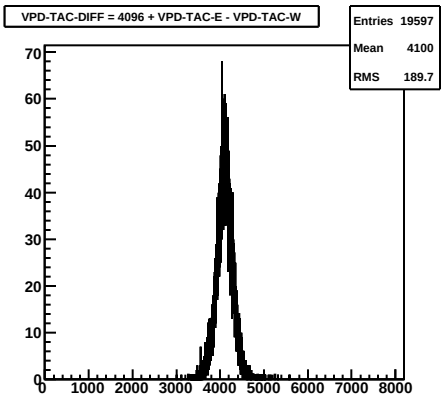

BBClarge-TAC-E
Entries 24924
Mean 1608
RMS 274.8

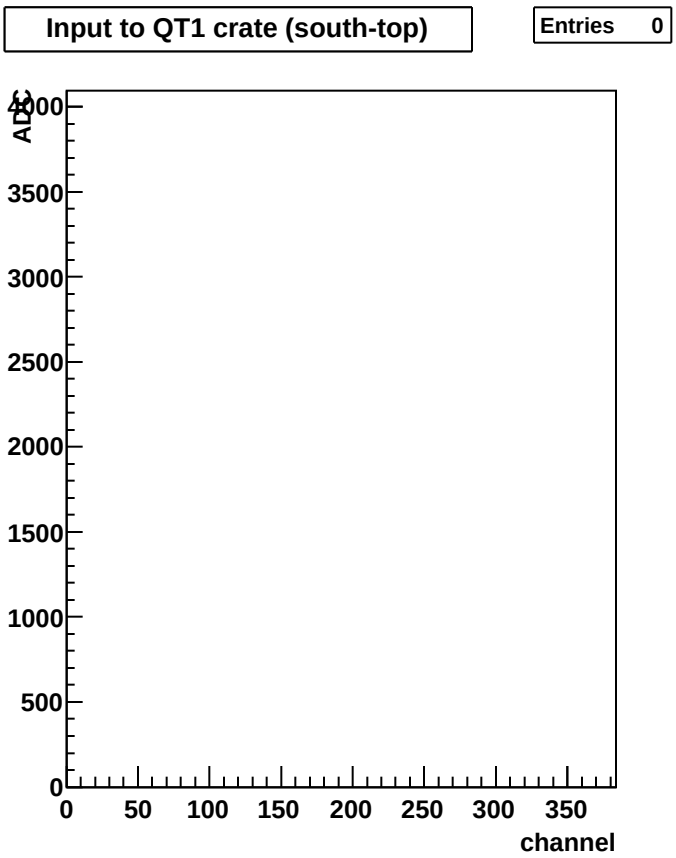

BBClarge-TAC-W
Entries 24933
Mean 1708
RMS 280.8

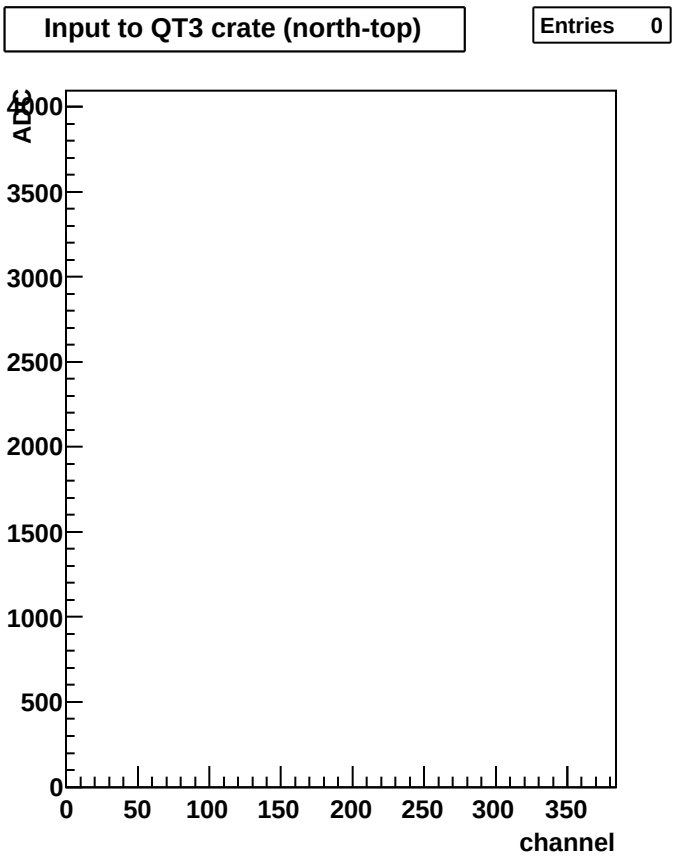

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 24859
Mean 3996
RMS 370.9

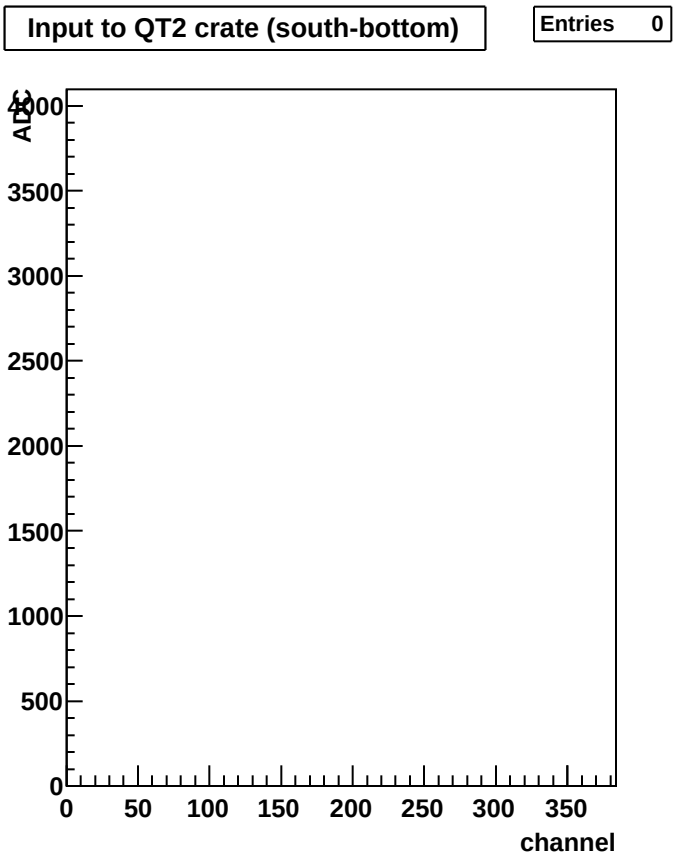

VPD-TAC-E
Entries 22484
Mean 1476
RMS 149.1

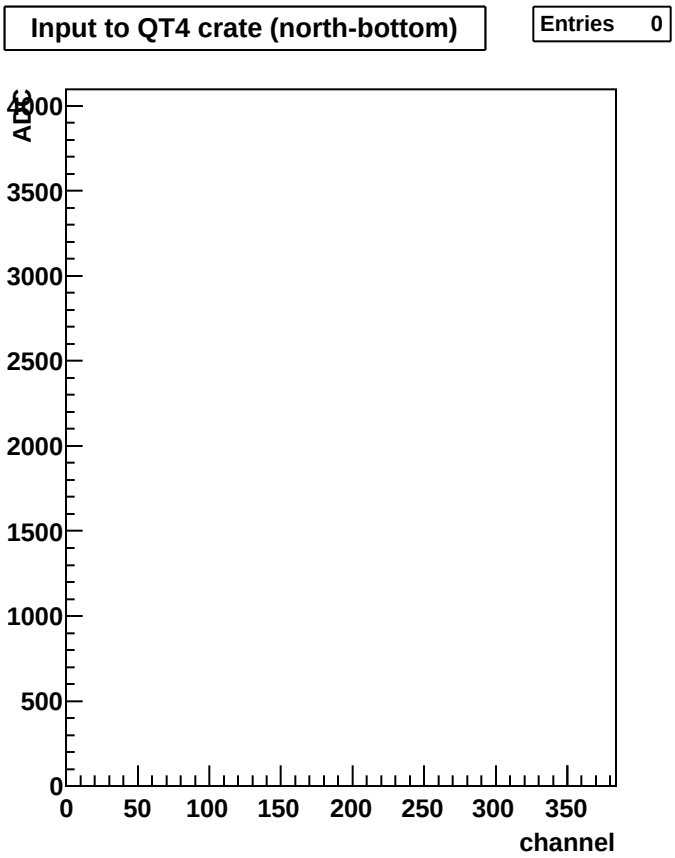

VPD-TAC-W
Entries 21750
Mean 1471
RMS 161.8

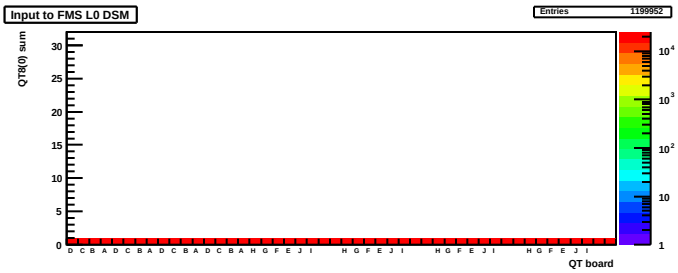

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19597
Mean 4100
RMS 189.7

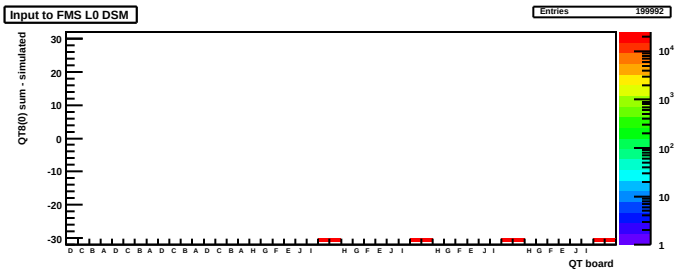

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

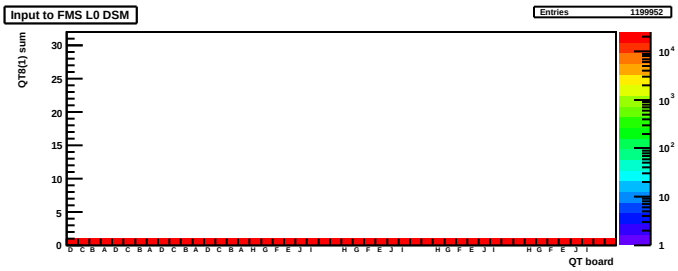

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

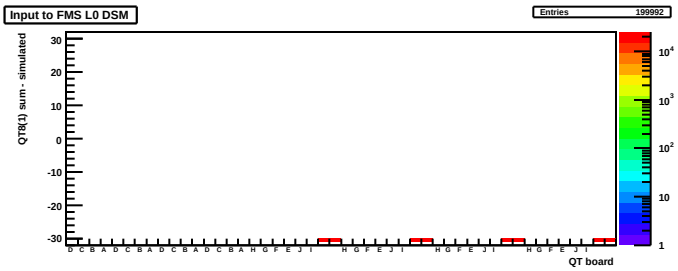

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

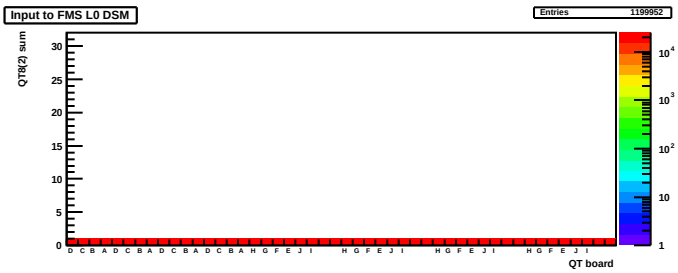

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

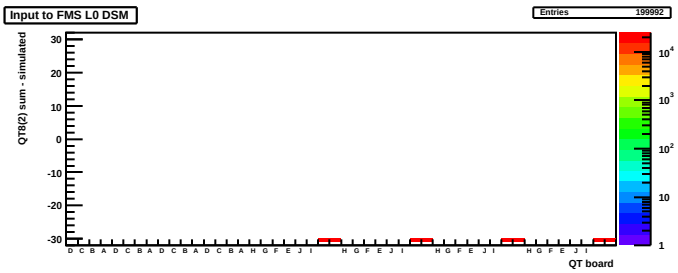

Input to FMS L0 DSM
Entries 1199952
QT8(0) sum
QT board

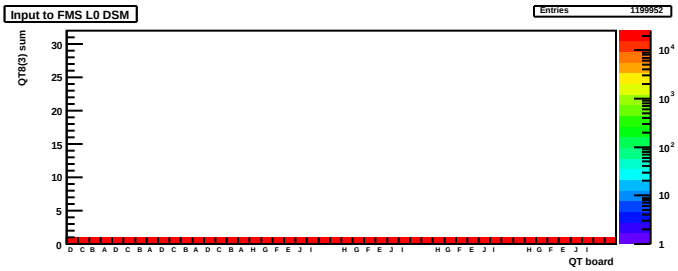

Input to FMS L0 DSM
Entries 199992
QT8(0) sum - simulated
QT board

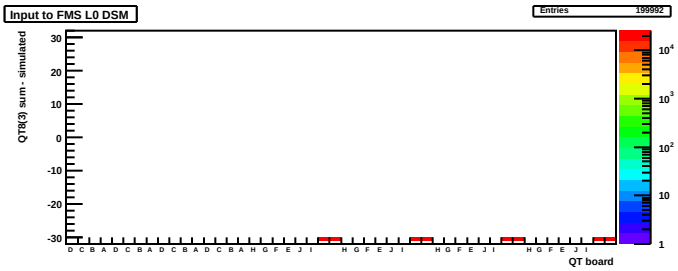

Input to FMS L0 DSM
Entries 1199952
QT8(1) sum
QT board

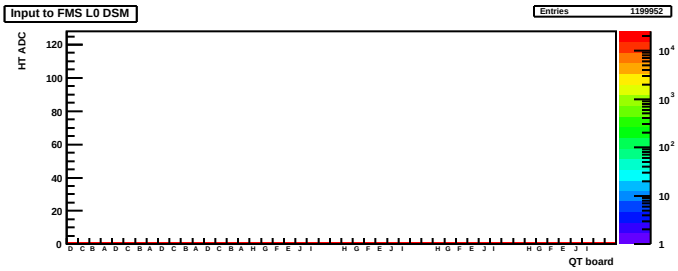

Input to FMS L0 DSM
Entries 199992
QT8(1) sum - simulated
QT board

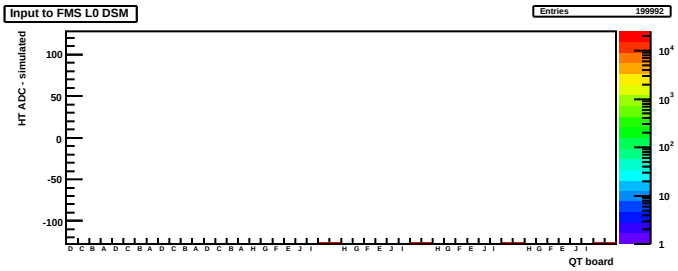

Input to FMS L0 DSM
Entries 1199952
QT8(2) sum
QT board

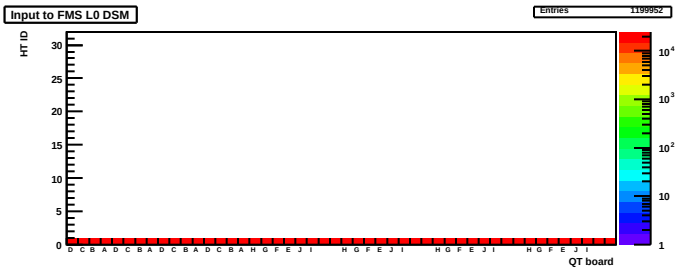

Input to FMS L0 DSM
Entries 199992
QT8(2) sum - simulated
QT board

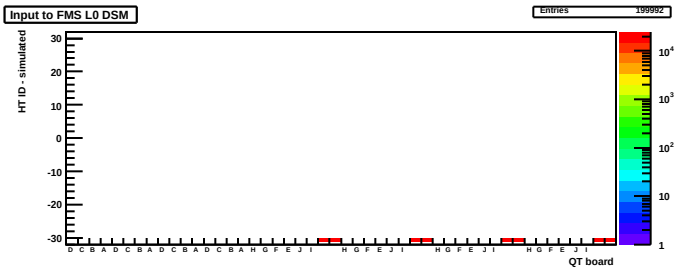

Input to FMS L0 DSM
Entries 1199952
QT8(3) sum
QT board

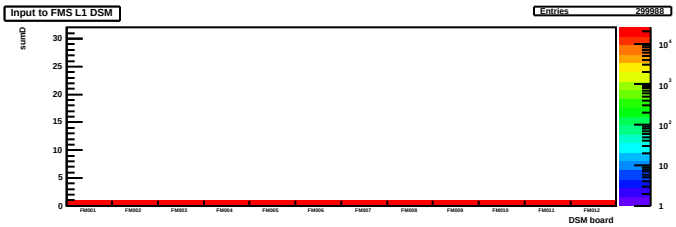

Input to FMS L0 DSM
Entries 199992
QT8(3) sum - simulated
QT board

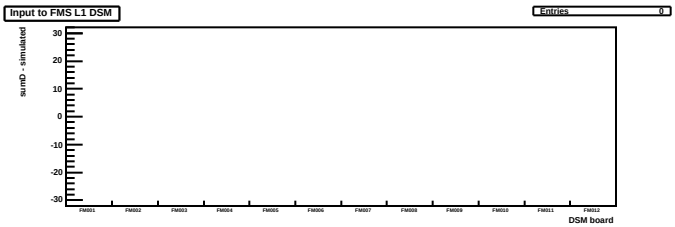

Input to FMS L0 DSM
Entries 1199952
HT ADC
QT board

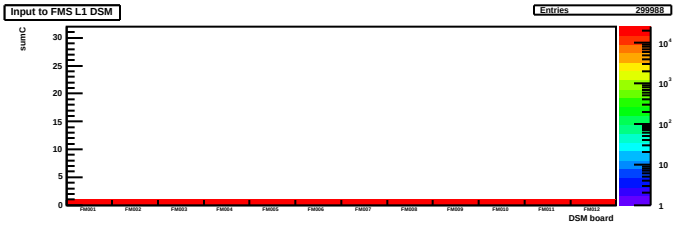

Input to FMS L0 DSM
Entries 199992
HT ADC - simulated
QT board

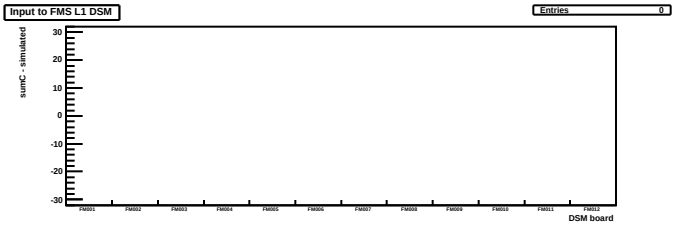

Input to FMS L0 DSM
Entries 1199952
HT ID
QT board

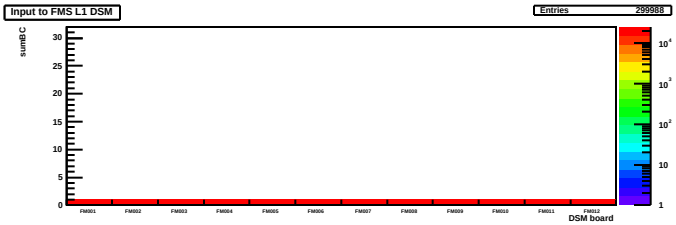

Input to FMS L0 DSM
Entries 199992
HT ID - simulated
QT board

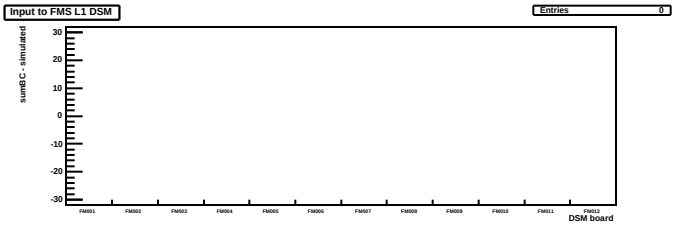

Input to FMS L1 DSM
Entries 299988
sumD
DSM board

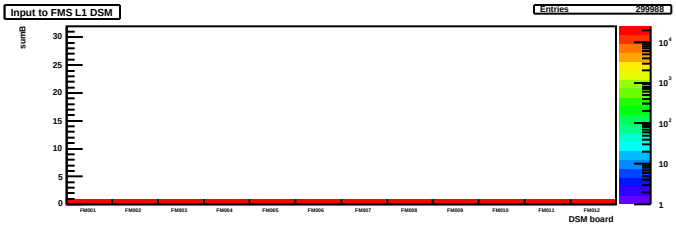

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

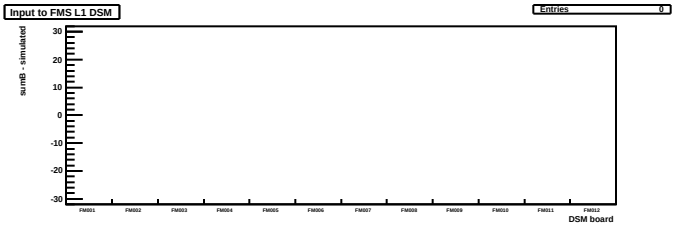

Input to FMS L1 DSM
Entries 299988
sumC
DSM board

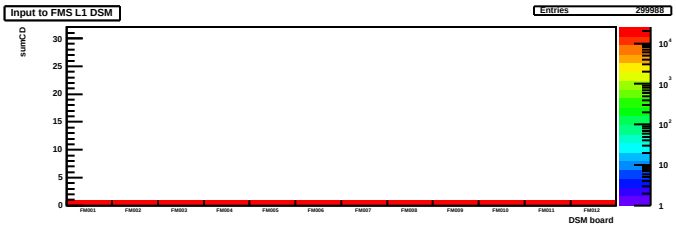

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

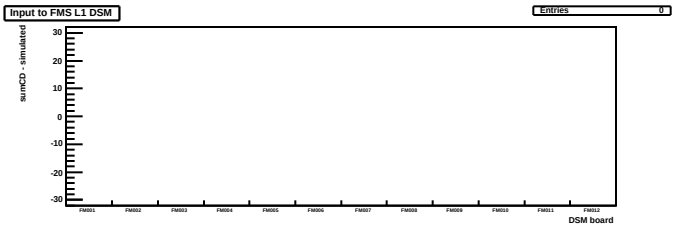

Input to FMS L1 DSM
Entries 299988
sumBC
DSM board

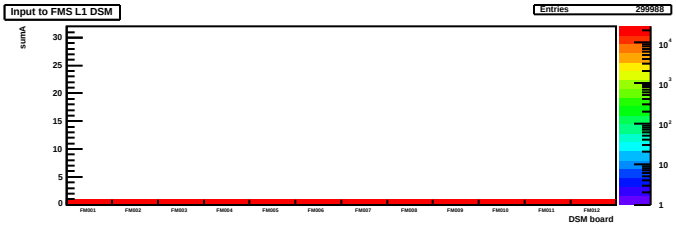

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

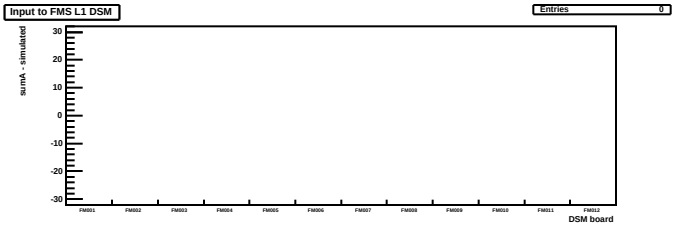

Input to FMS L1 DSM
Entries 299988
sumB
DSM board

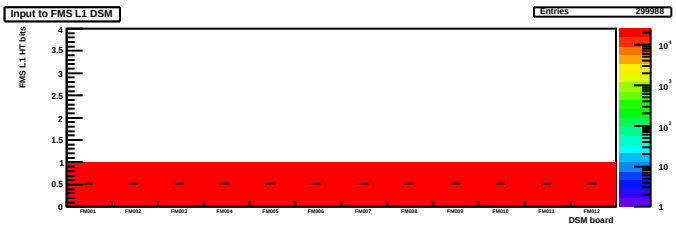

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

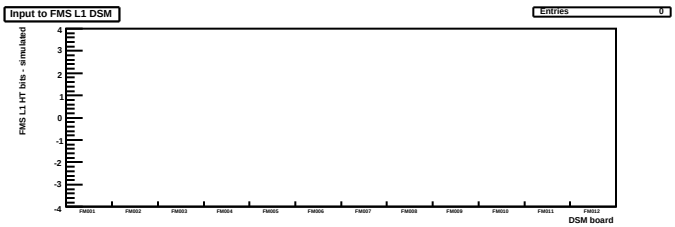

Input to FMS L1 DSM
Entries 299988
sumCD
DSM board

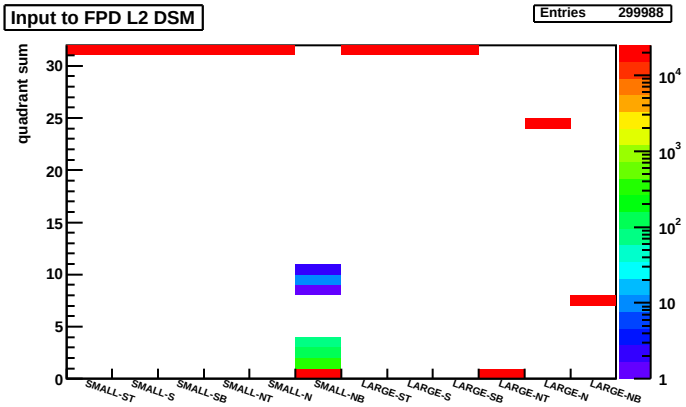

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

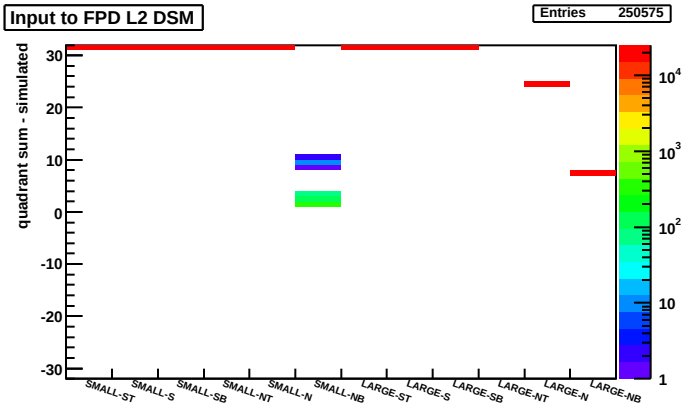

Input to FMS L1 DSM
Entries 299988
sumA
DSM board

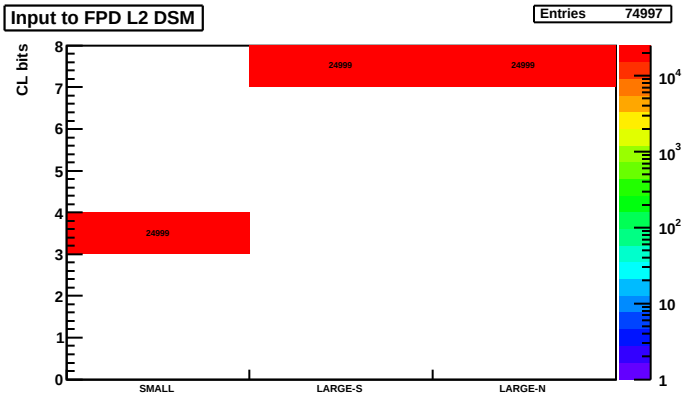

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

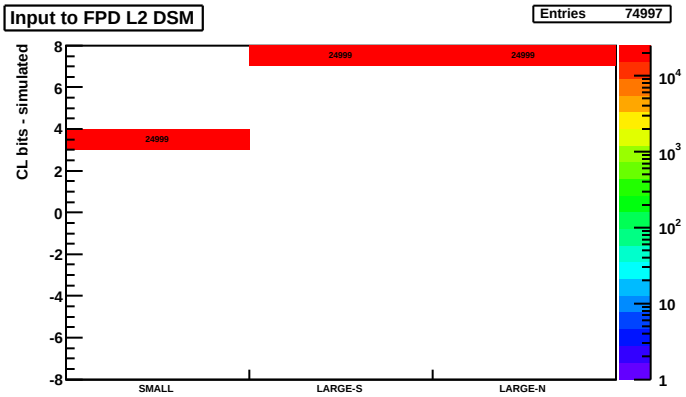

Input to FMS L1 DSM
Entries 299988
FMS L1 HT bits
DSM board

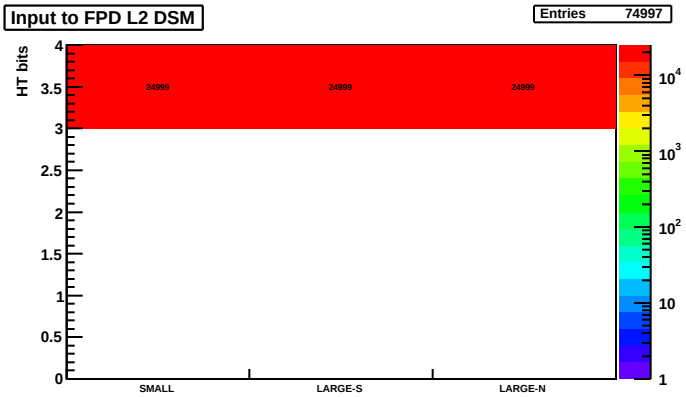

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

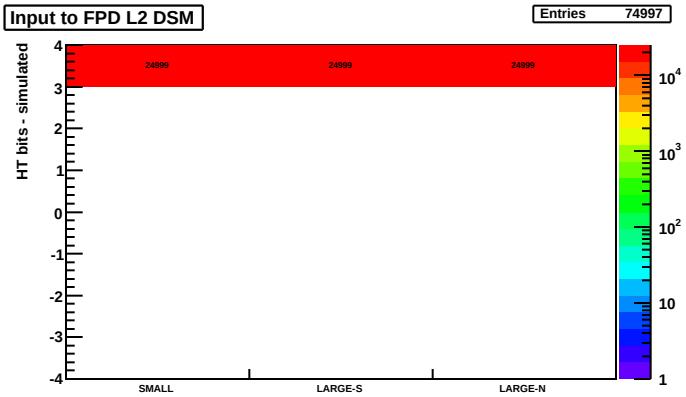

Input to FPD L2 DSM
Entries 299988
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

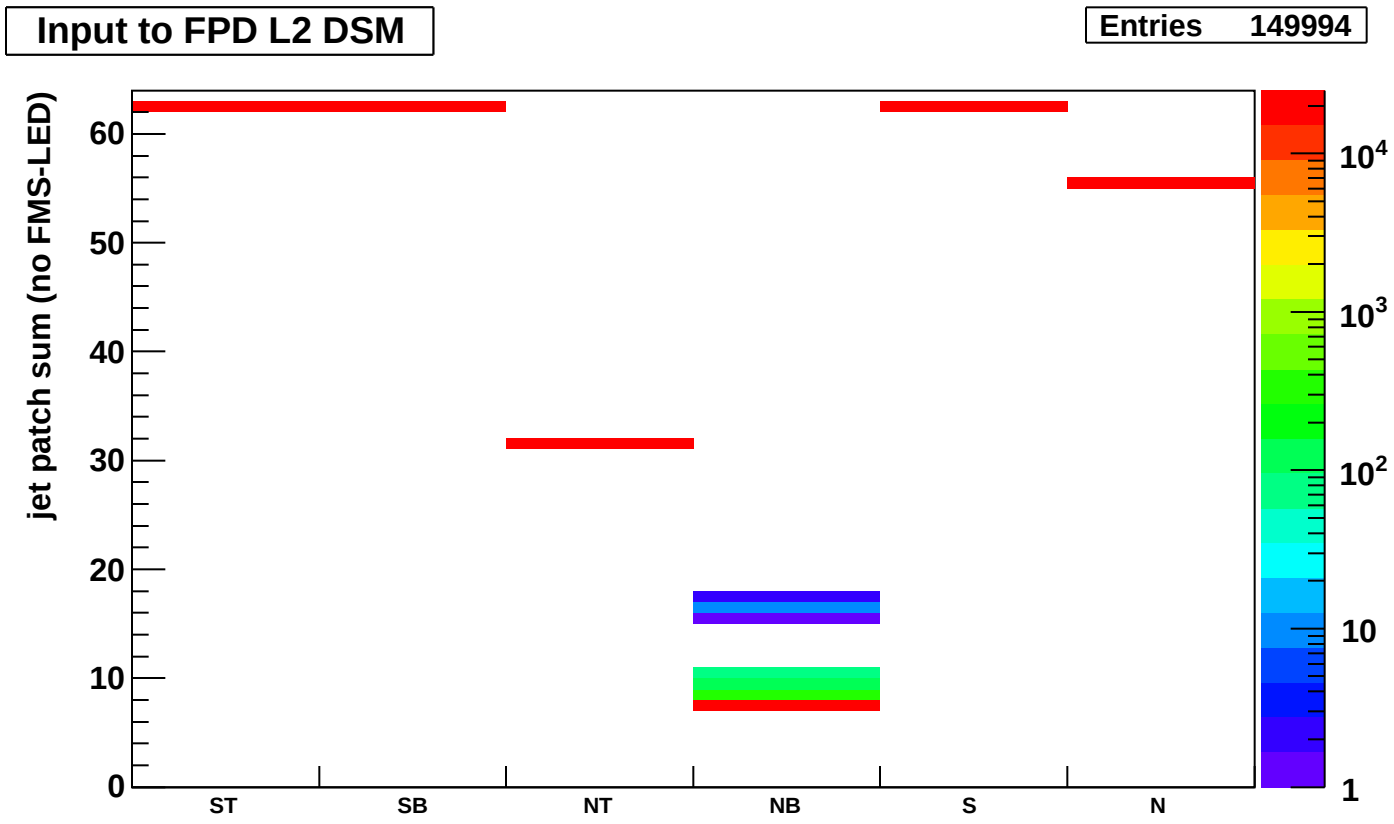

Input to FPD L2 DSM
Entries 250575
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

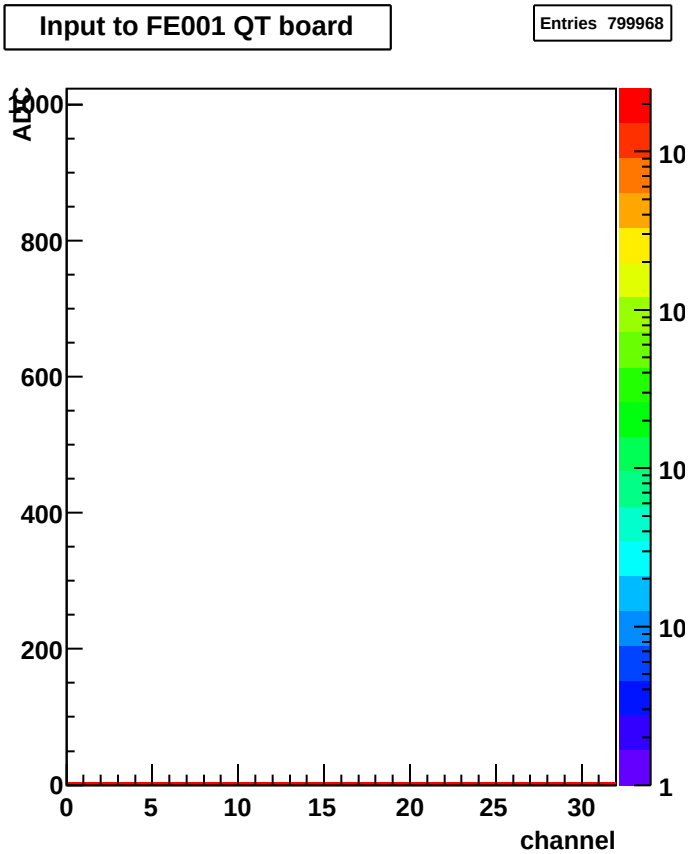

Input to FPD L2 DSM
Entries 74997
CL bits
24999
24999
24999
SMALL
LARGE-S
LARGE-N

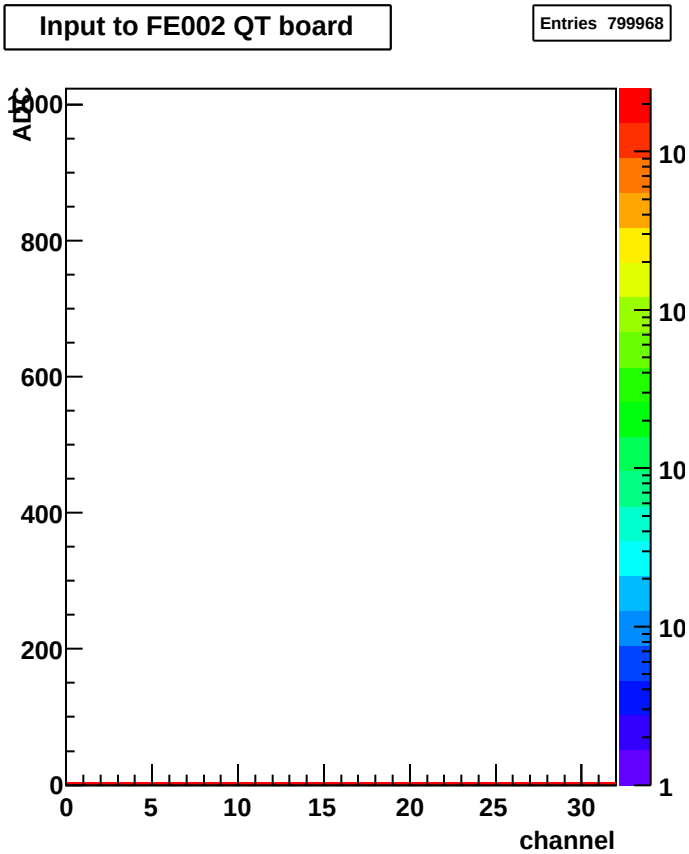

Input to FPD L2 DSM
Entries 74997
CL bits - simulated
24999
24999
24999
SMALL
LARGE-S
LARGE-N

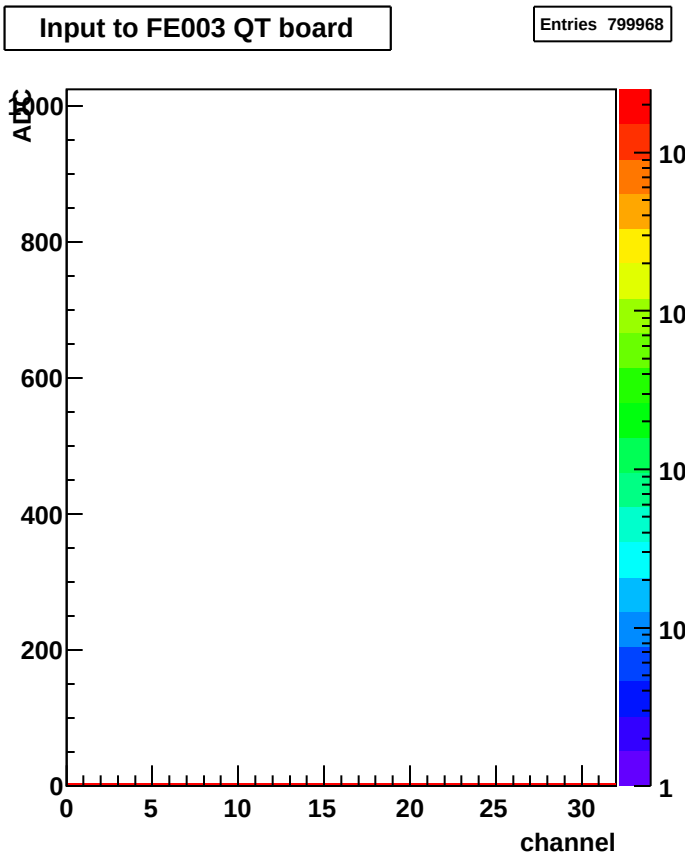

Input to FPD L2 DSM
Entries 74997
HT bits
24999
24999
24999
SMALL
LARGE-S
LARGE-N

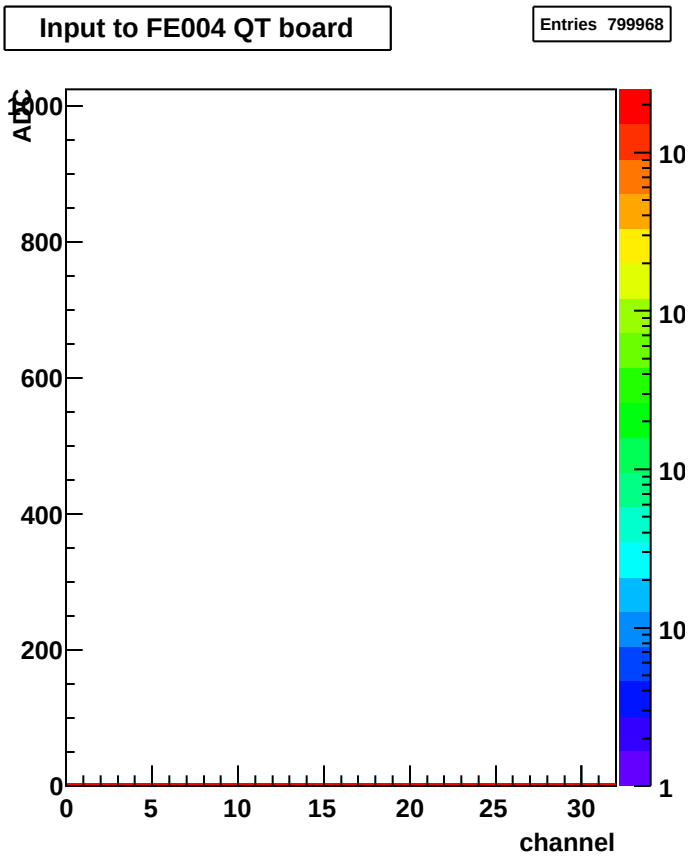

Input to FPD L2 DSM
Entries 74997
HT bits - simulated
24999
24999
24999
SMALL
LARGE-S
LARGE-N

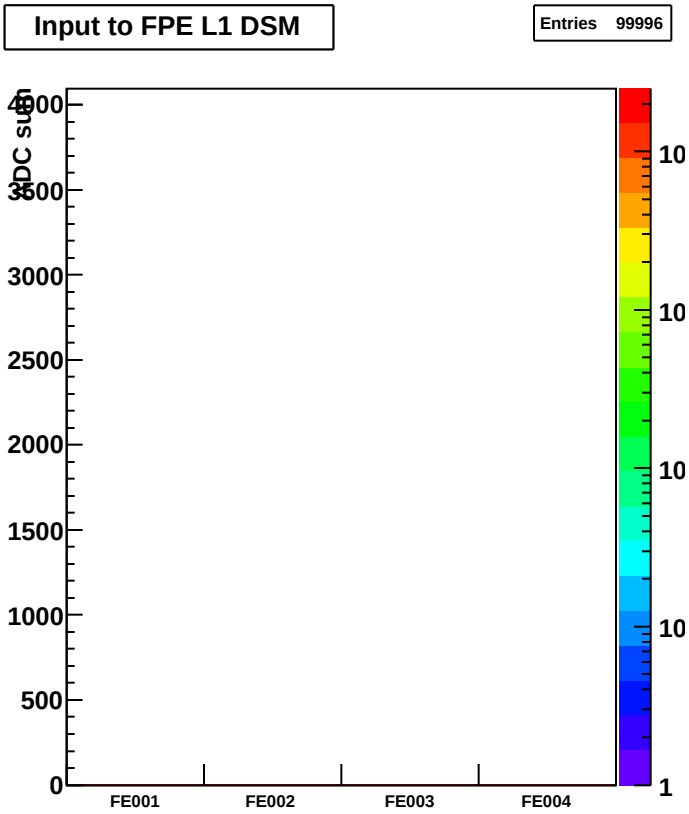

Input to FPD L2 DSM
Entries 149994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

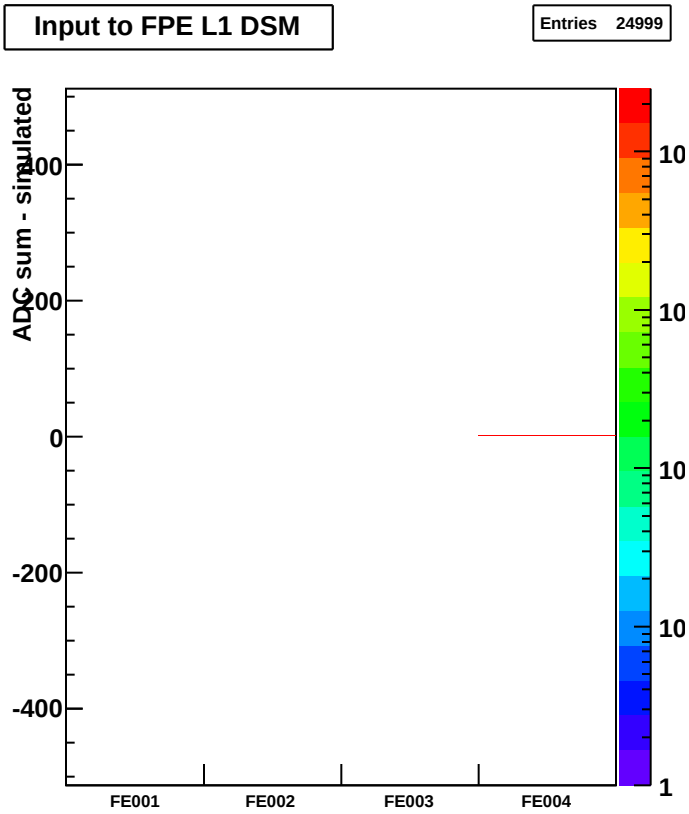

Input to FE001 QT board
Entries 799968
ADC
channel

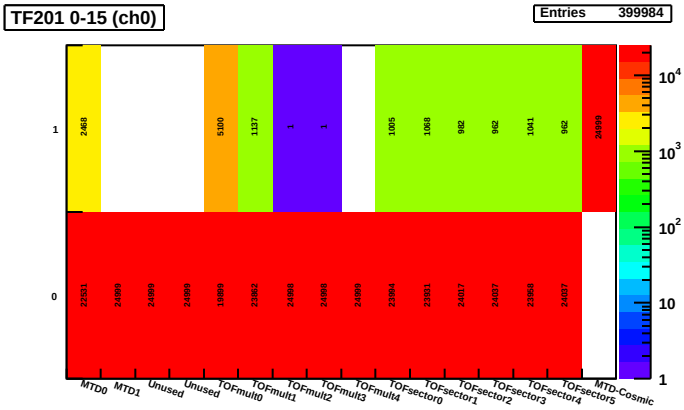

Input to FE002 QT board
Entries 799968
ADC
channel

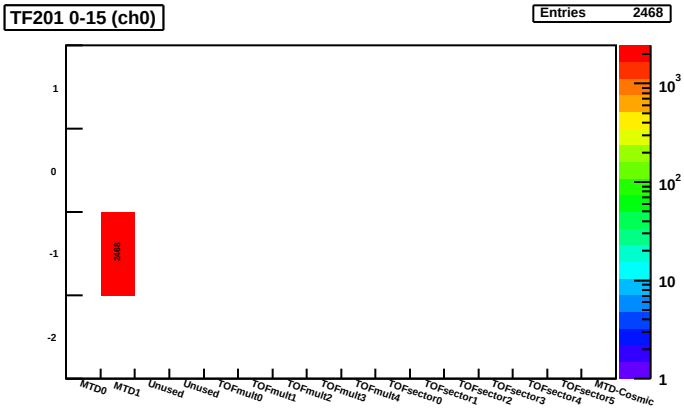

Input to FE003 QT board
Entries 799968
ADC
channel

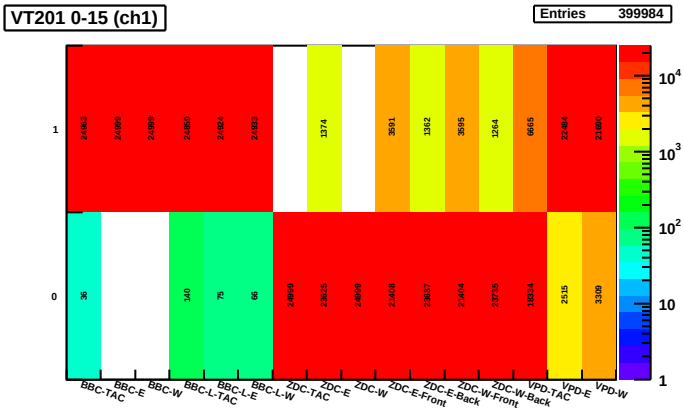

Input to FE004 QT board
Entries 799968
ADC
channel

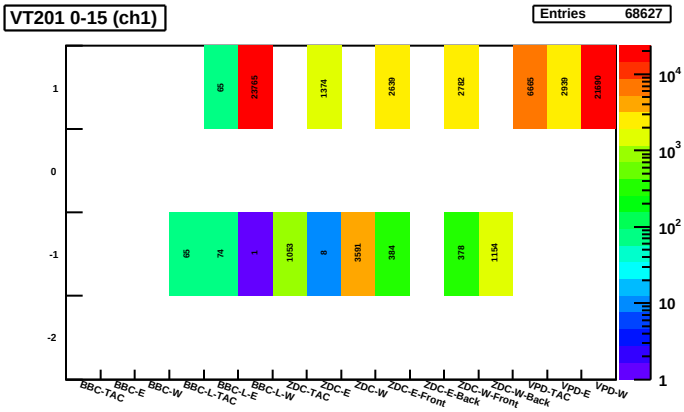

Input to FPE L1 DSM
Entries 99996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

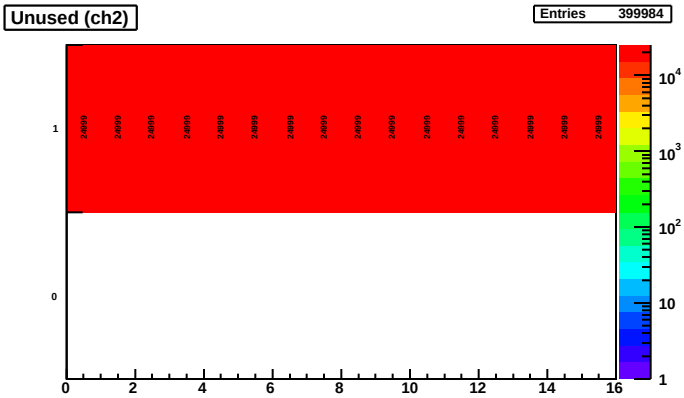

Input to FPE L1 DSM
Entries 24999
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

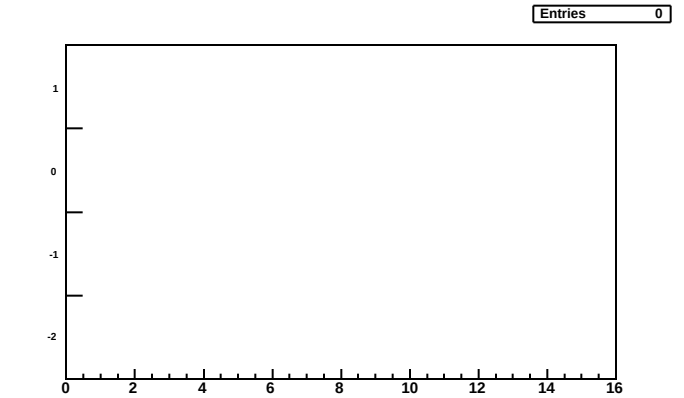

TF201 0-15 (ch0)
Entries 399984
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2468
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 399984
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 68627
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 399984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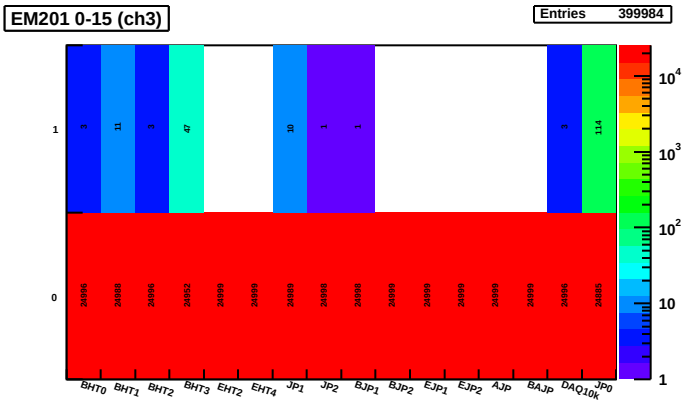
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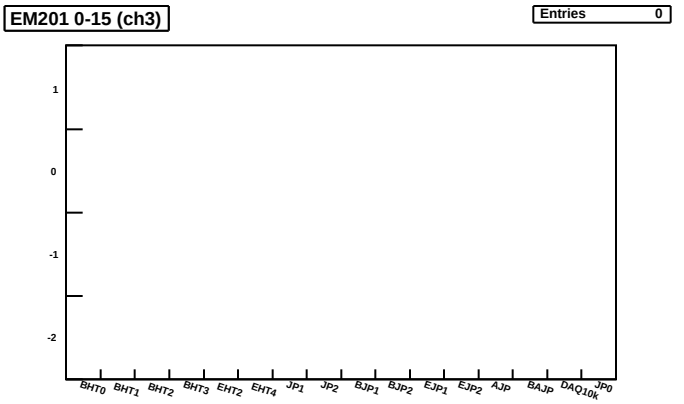
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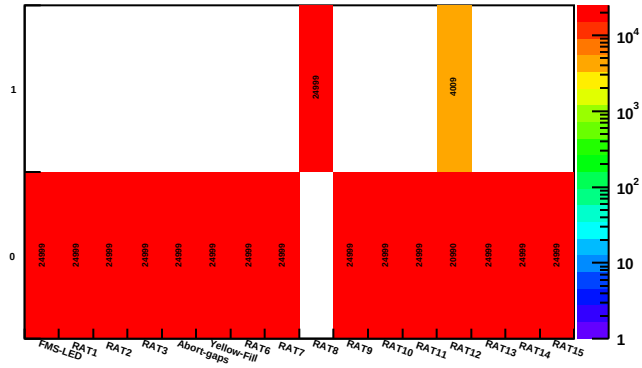
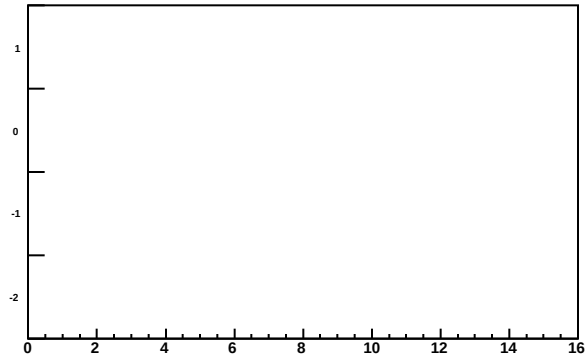
RAT board (ch4)





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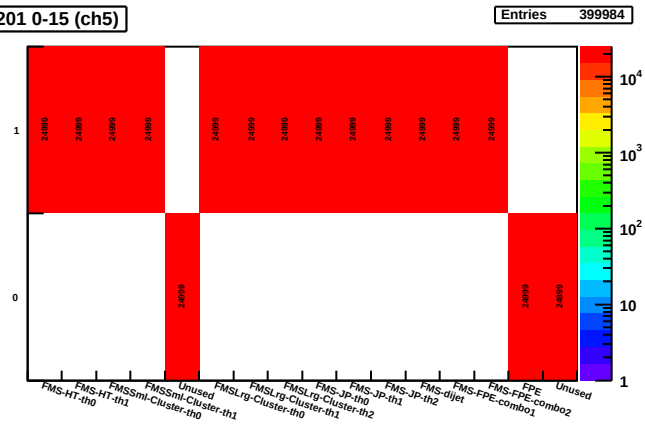

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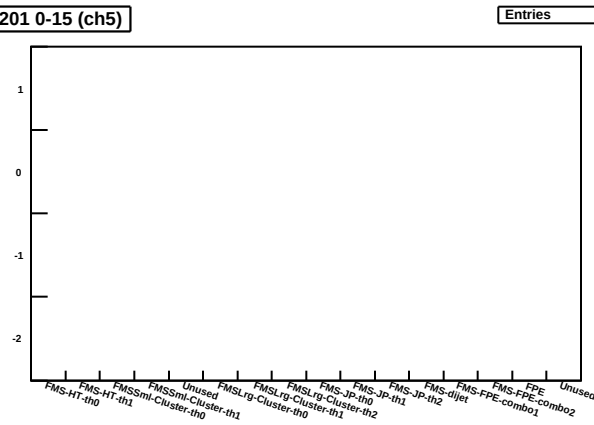
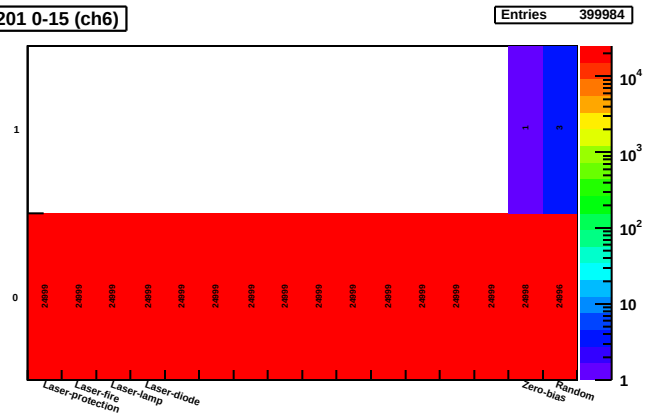
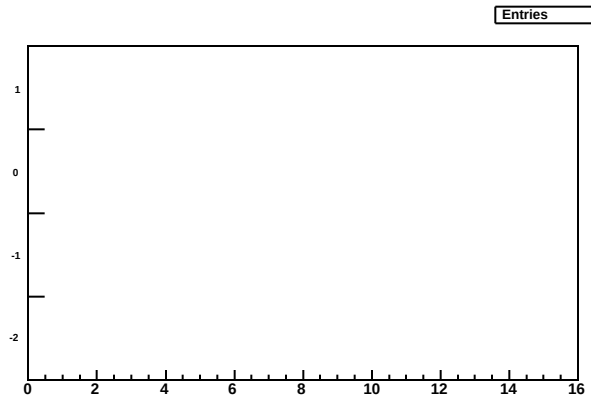
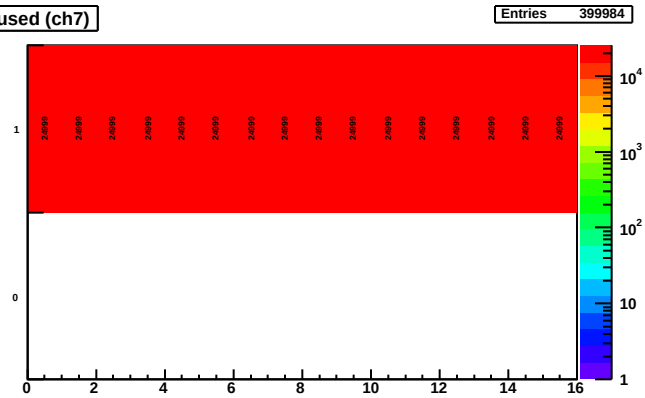
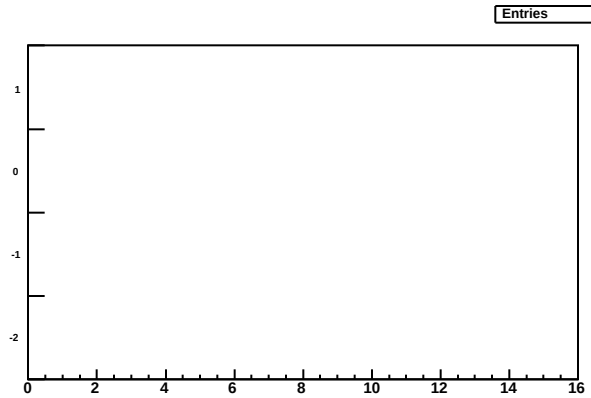


ST201 0-15 (ch6)





Unused (ch7)