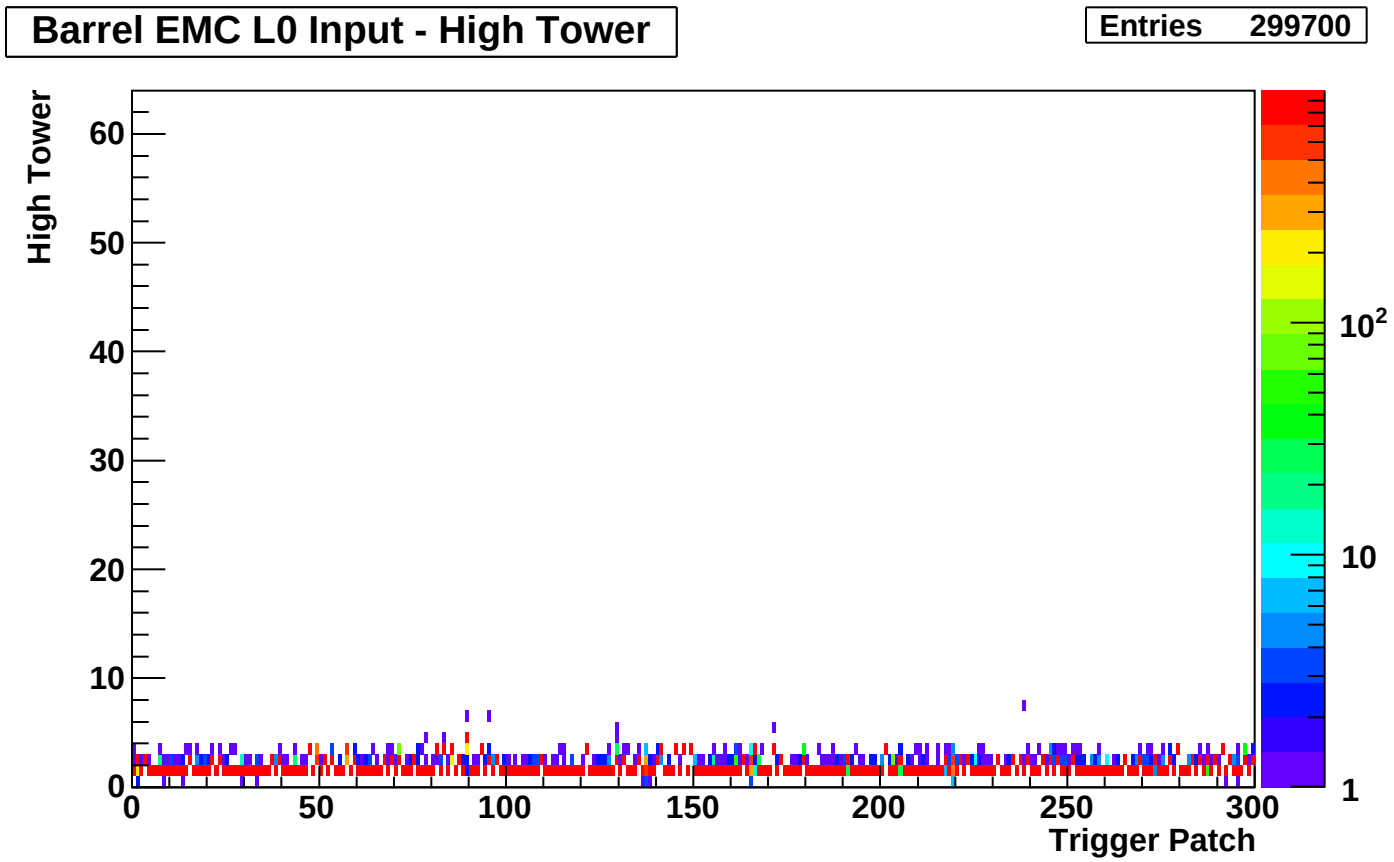
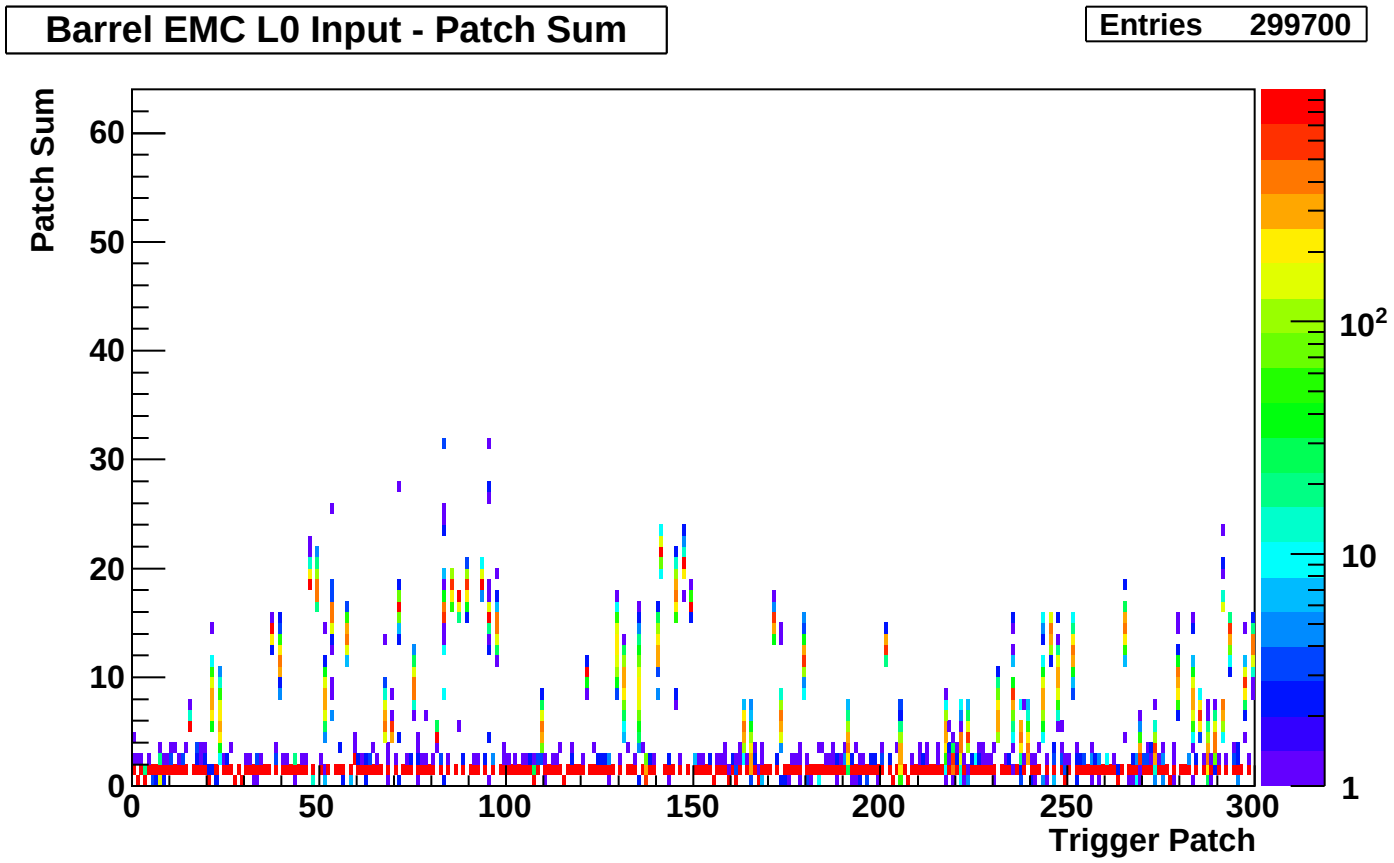
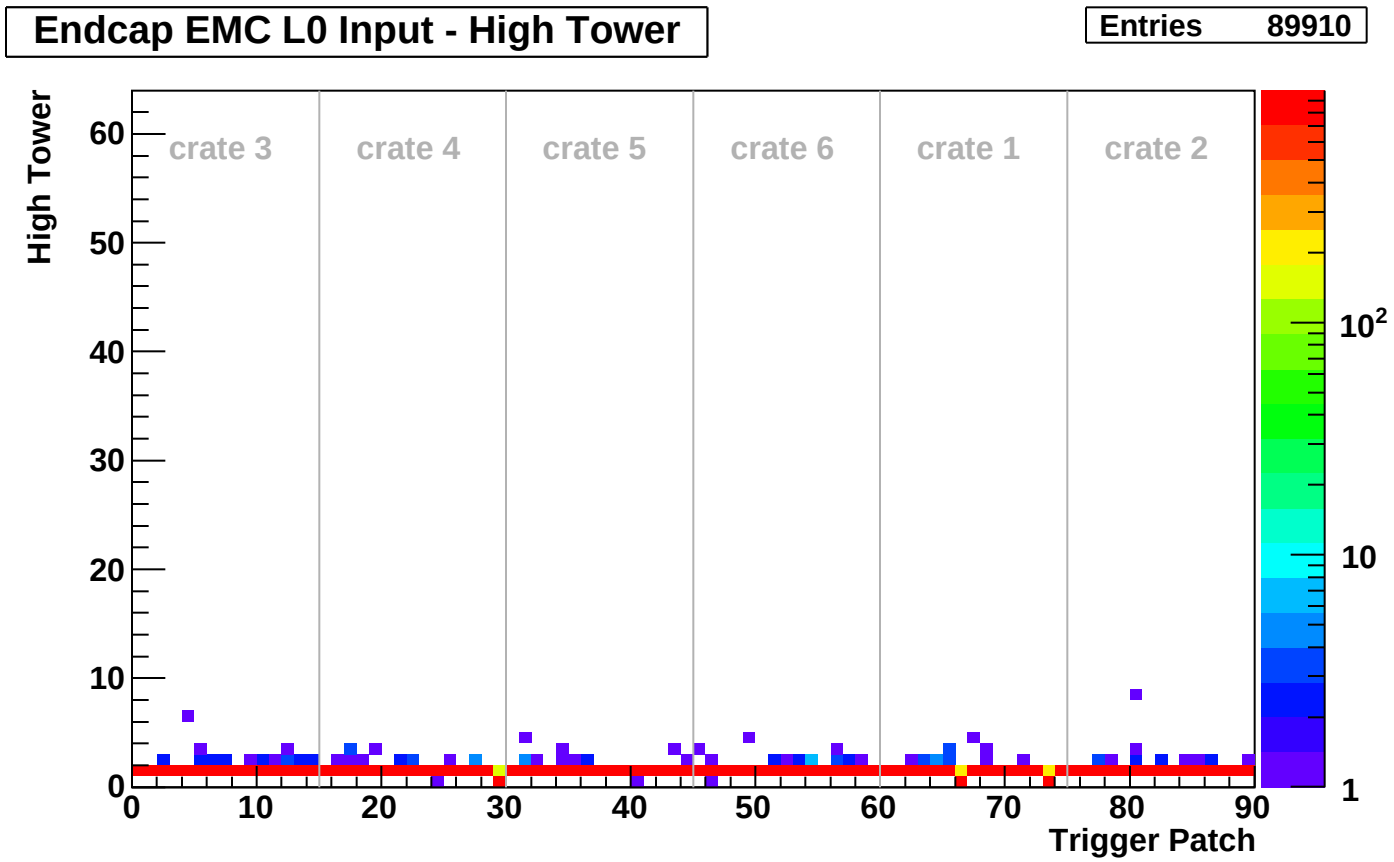
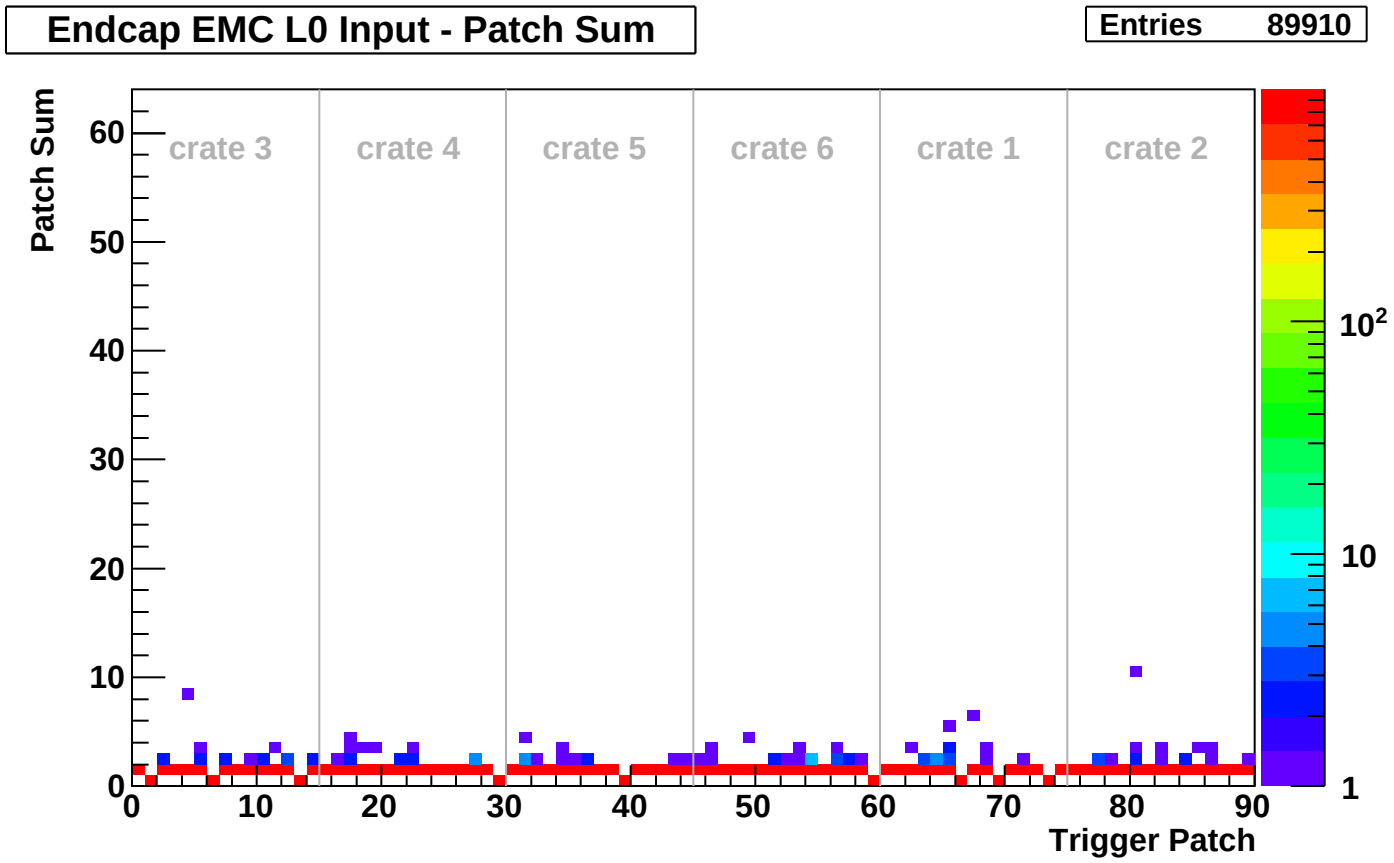
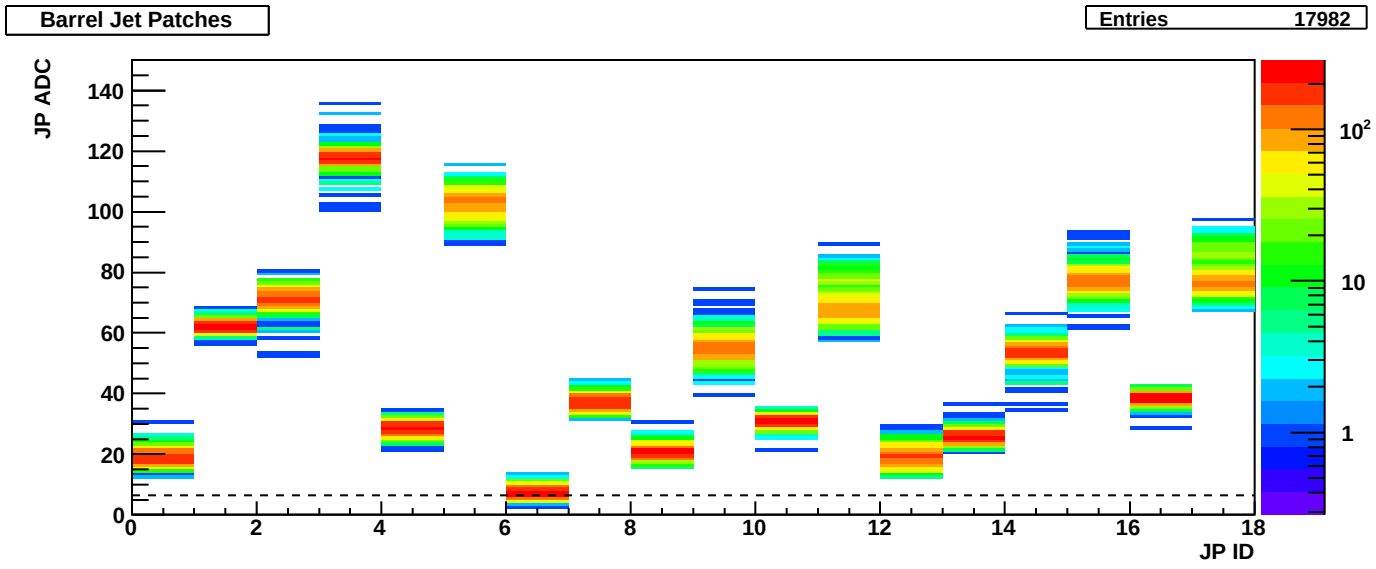
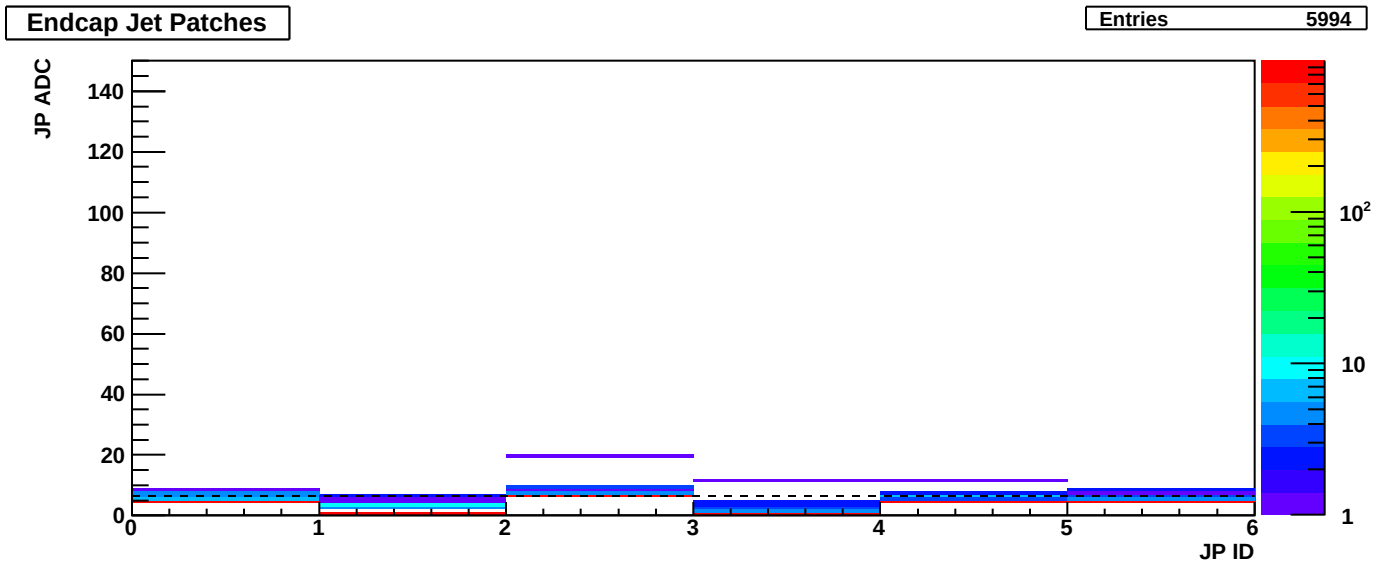

Barrel EMC L0 Input - High Tower
Entries 299700
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2

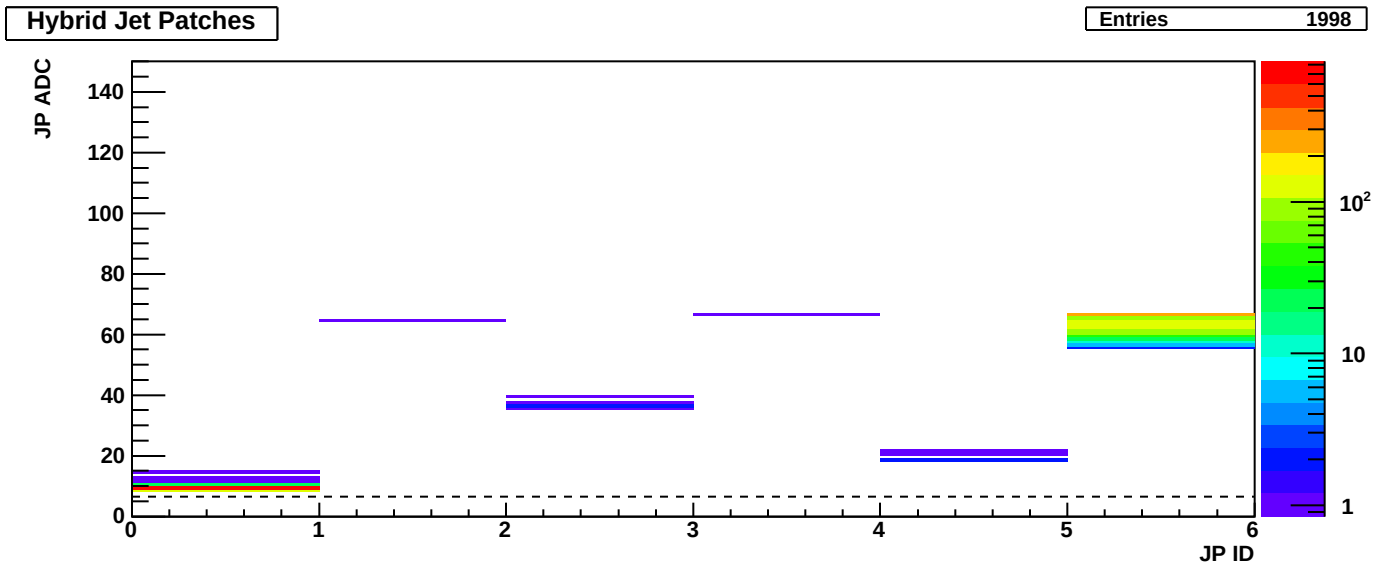

Barrel EMC L0 Input - Patch Sum
Entries 299700
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2

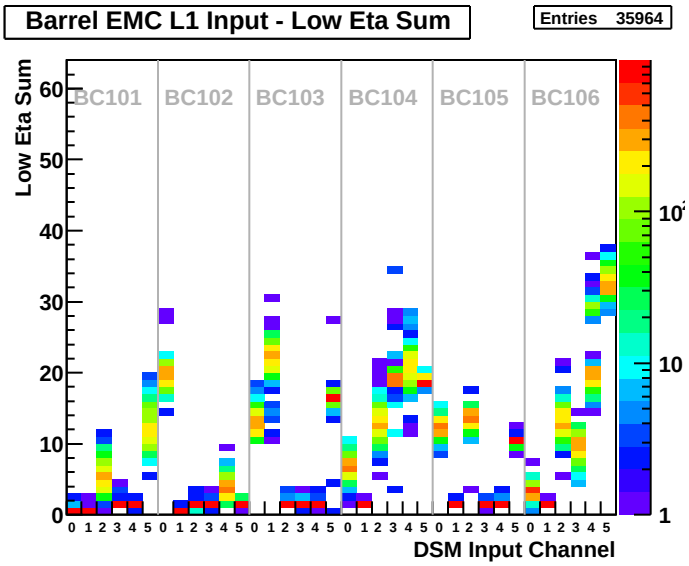

Endcap EMC L0 Input - High Tower
Entries 89910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2

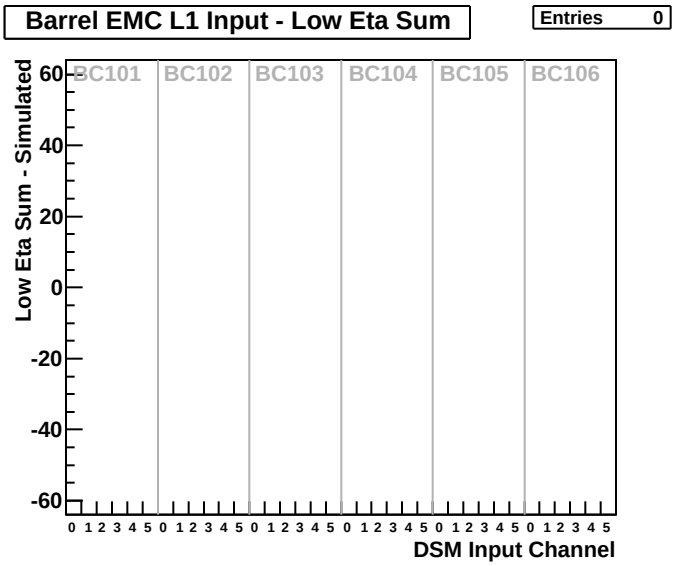

Endcap EMC L0 Input - Patch Sum
Entries 89910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2

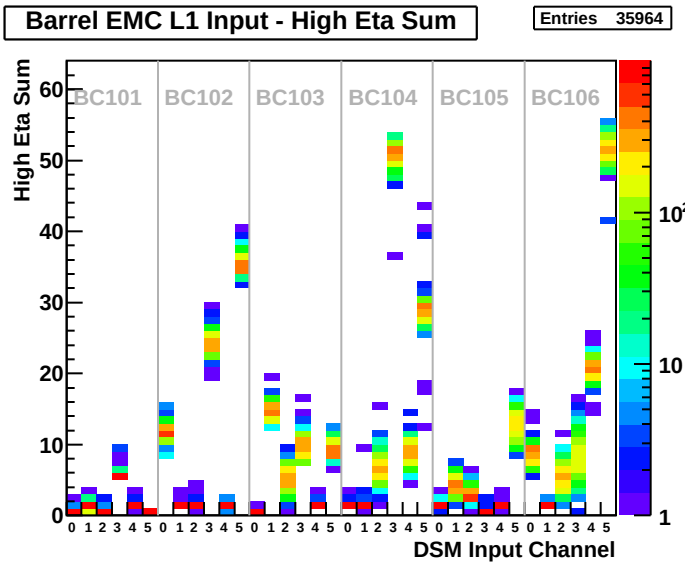

Barrel Jet Patches
Entries 17982
JP ADC
JP ID

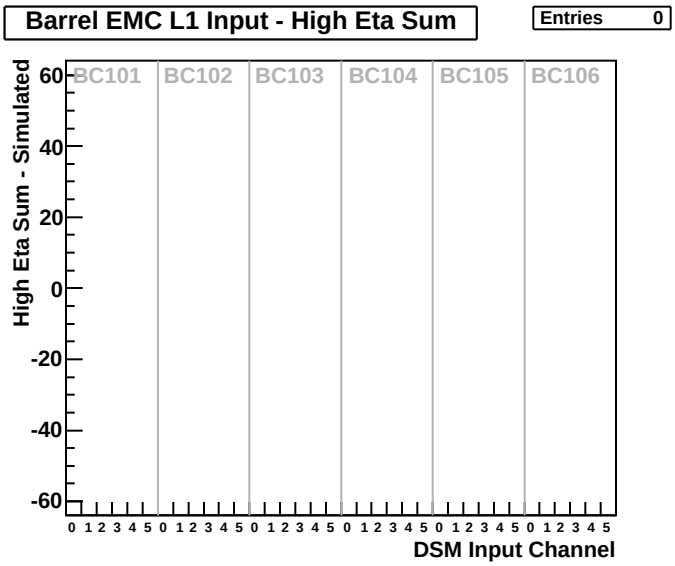

Endcap Jet Patches
Entries 5994
JP ADC
JP ID

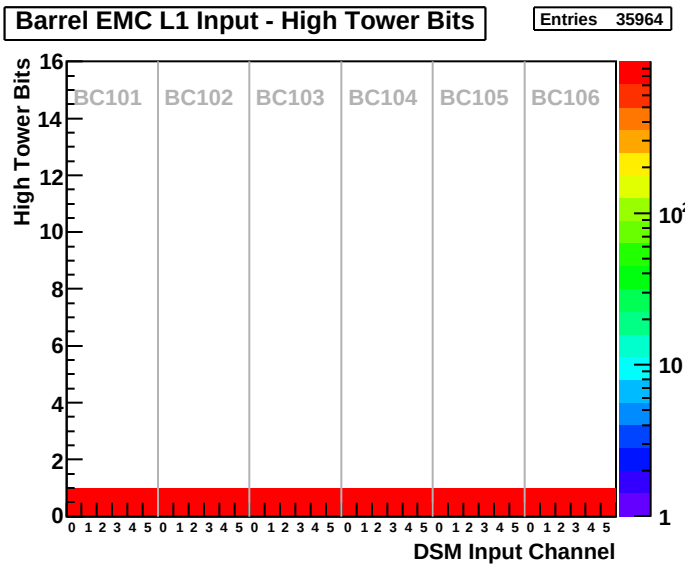

Hybrid Jet Patches
Entries 1998
JP ADC
JP ID

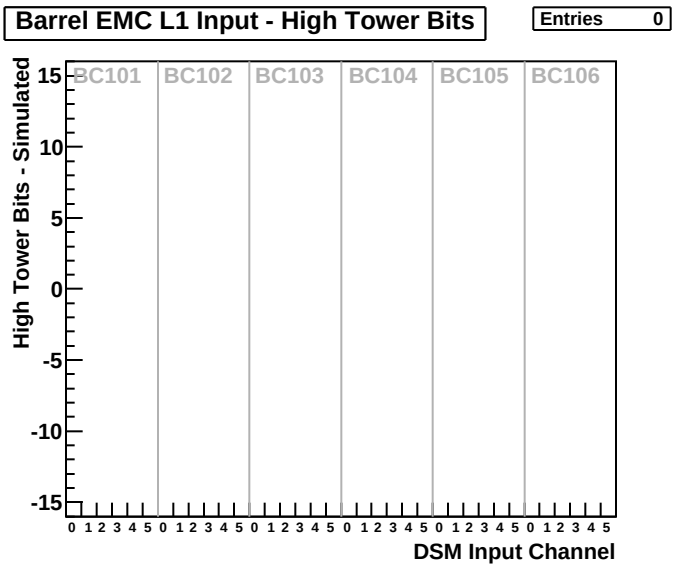

Barrel EMC L1 Input - Low Eta Sum
Entries 35964
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

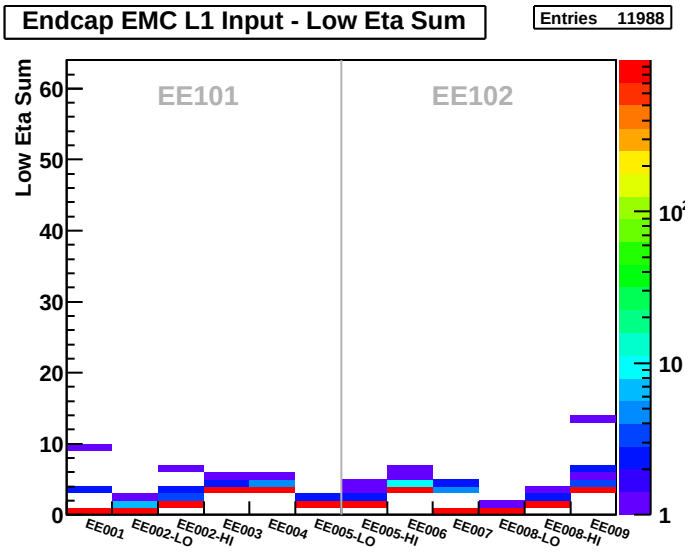

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

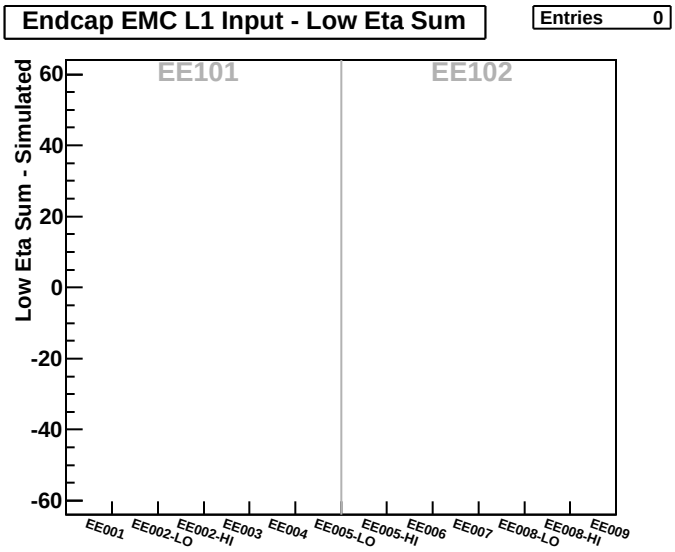

Barrel EMC L1 Input - High Eta Sum
Entries 35964
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

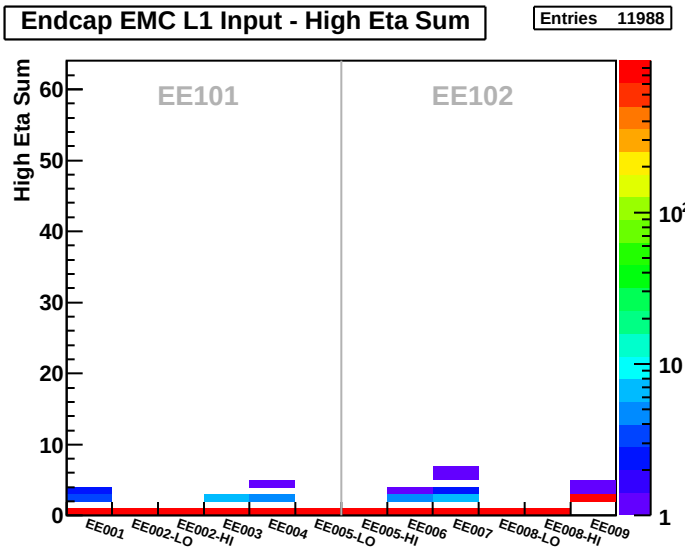

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

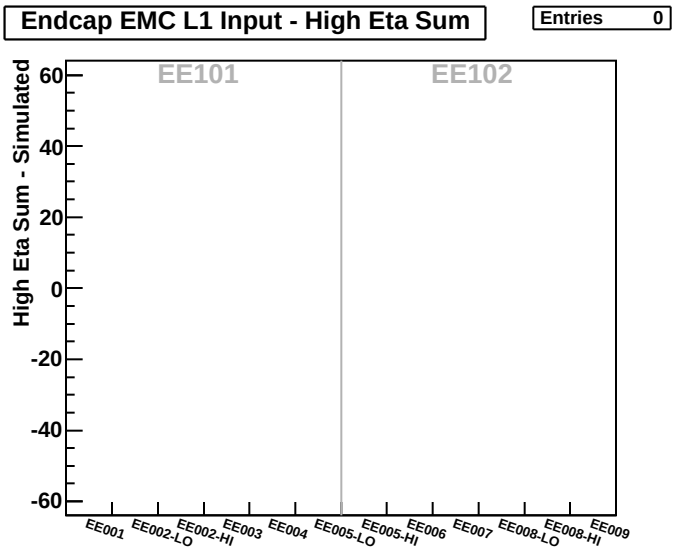

Barrel EMC L1 Input - High Tower Bits
Entries 35964
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

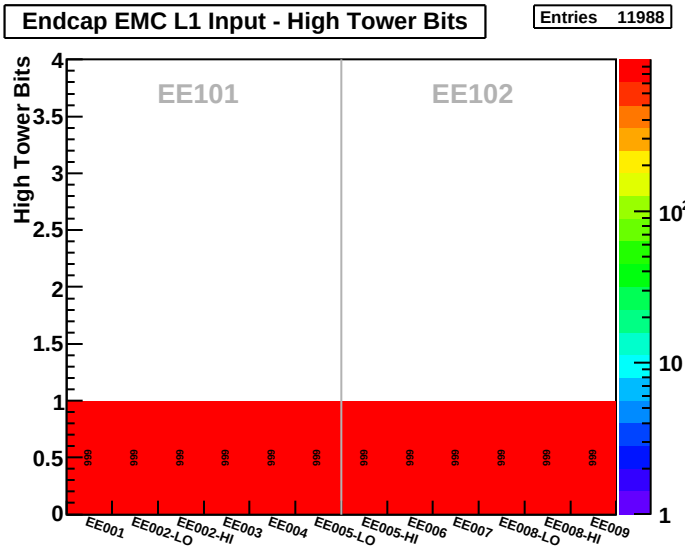

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

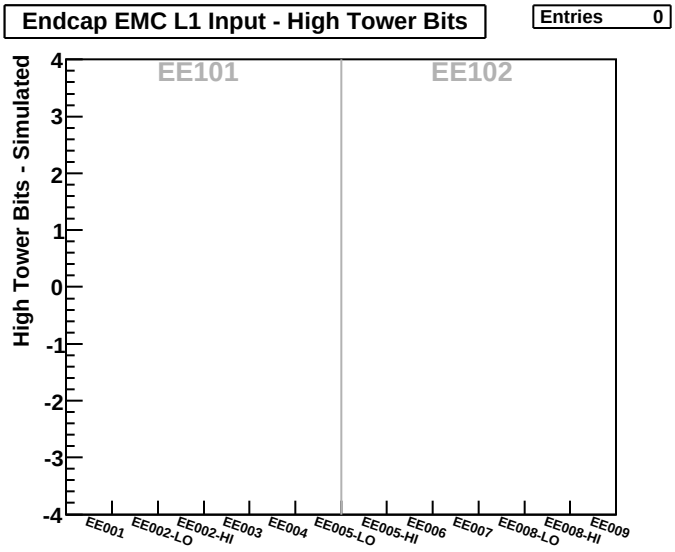

Endcap EMC L1 Input - Low Eta Sum
Entries 11988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

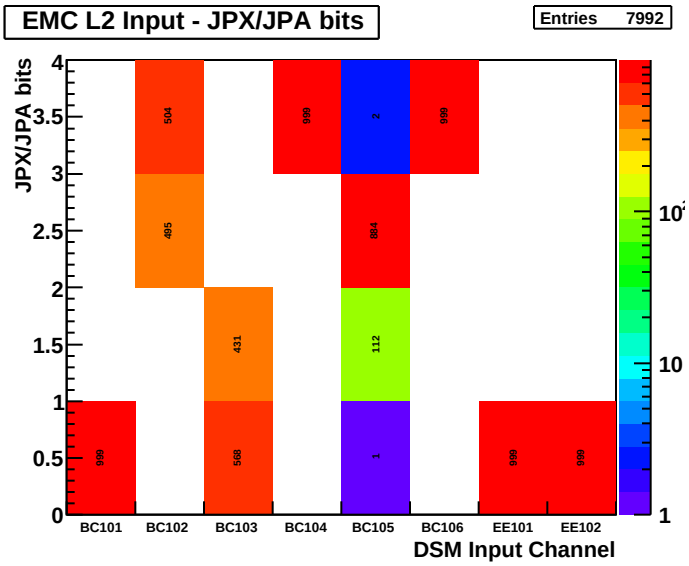

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

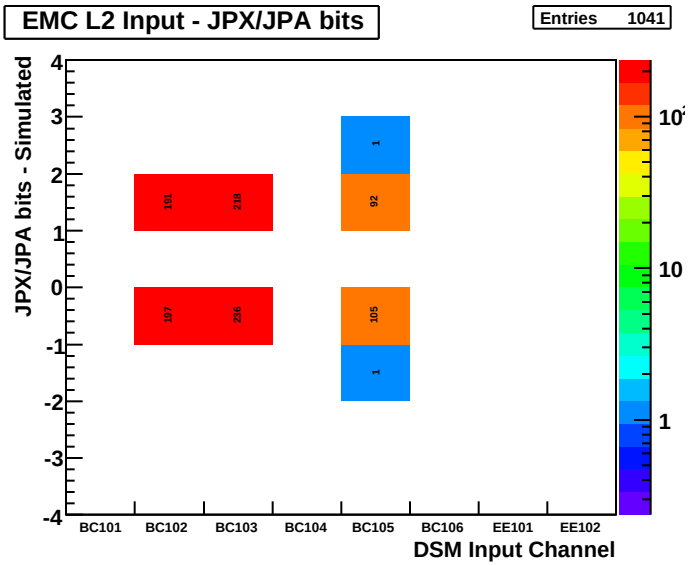

Endcap EMC L1 Input - High Eta Sum
Entries 11988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

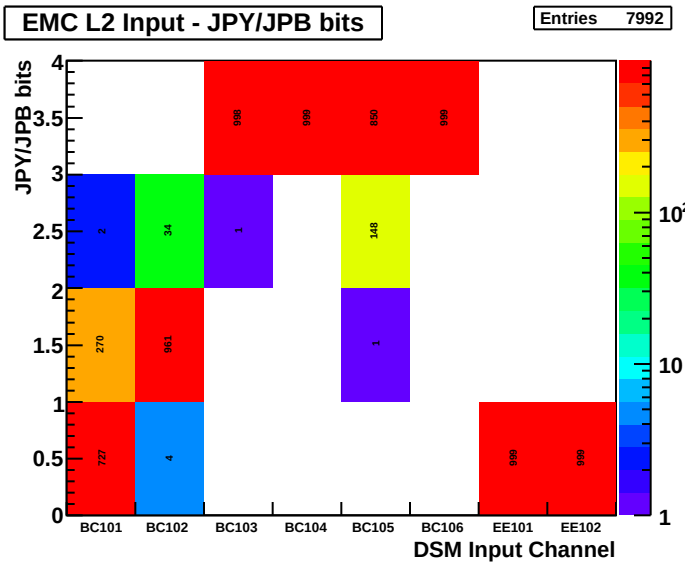

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

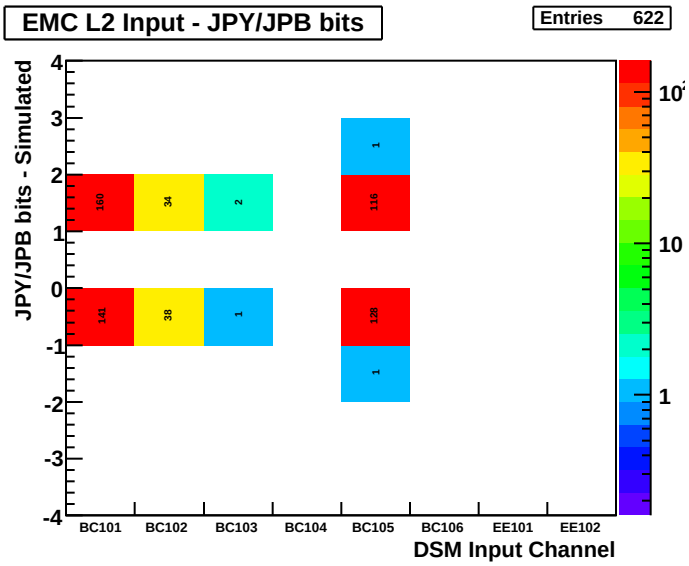

Endcap EMC L1 Input - High Tower Bits
Entries 11988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

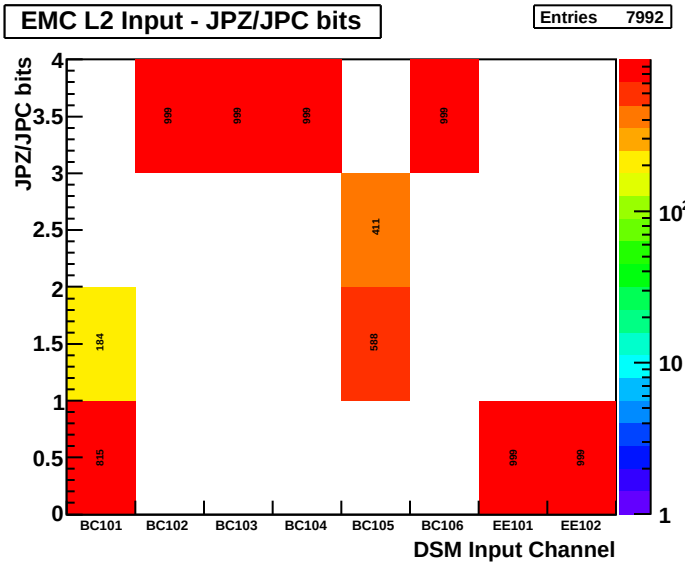

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

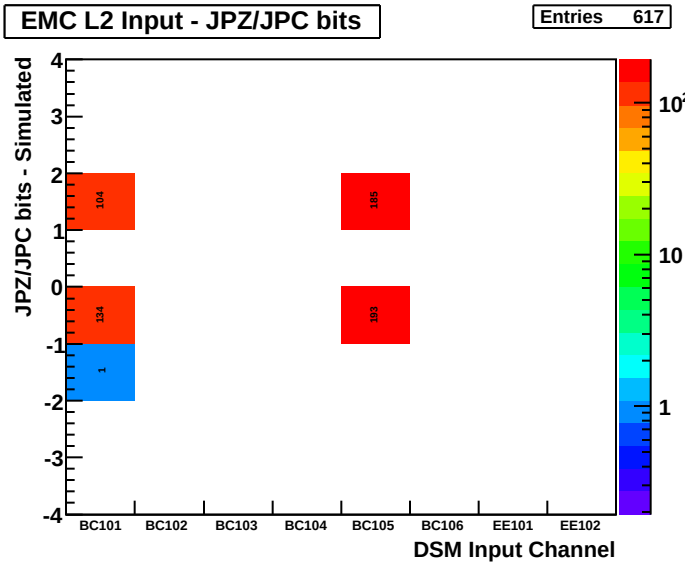

EMC L2 Input - JPX/JPA bits
Entries 7992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

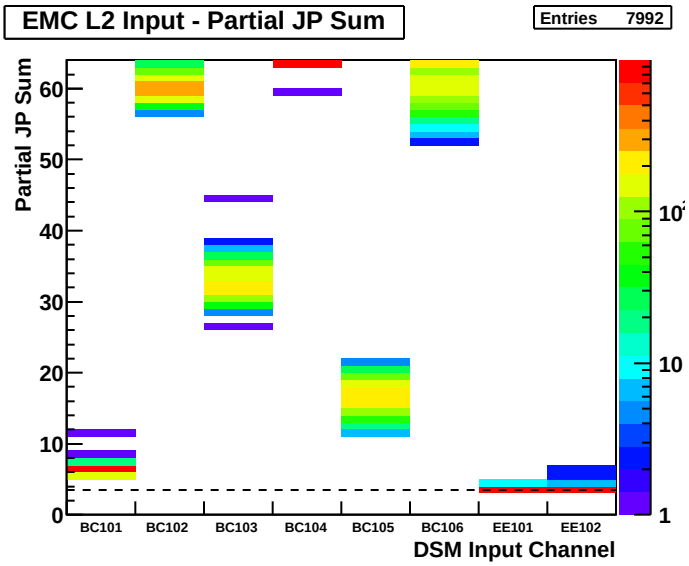

EMC L2 Input - JPX/JPA bits
Entries 1041
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

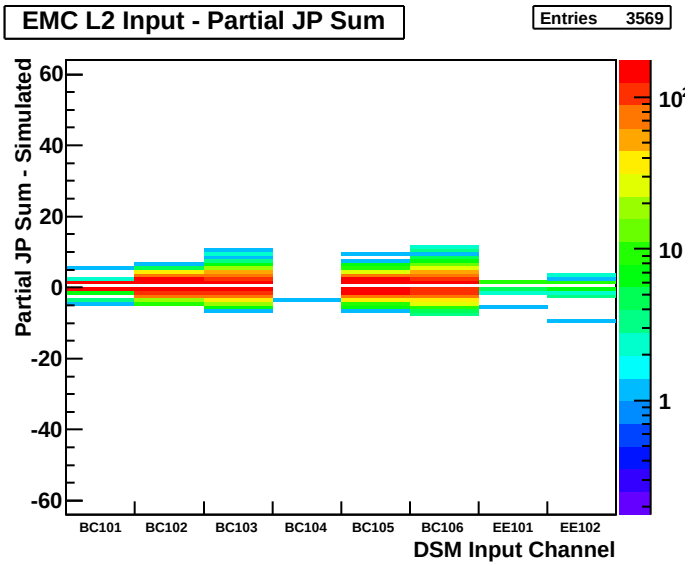

EMC L2 Input - JPY/JPB bits
Entries 7992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

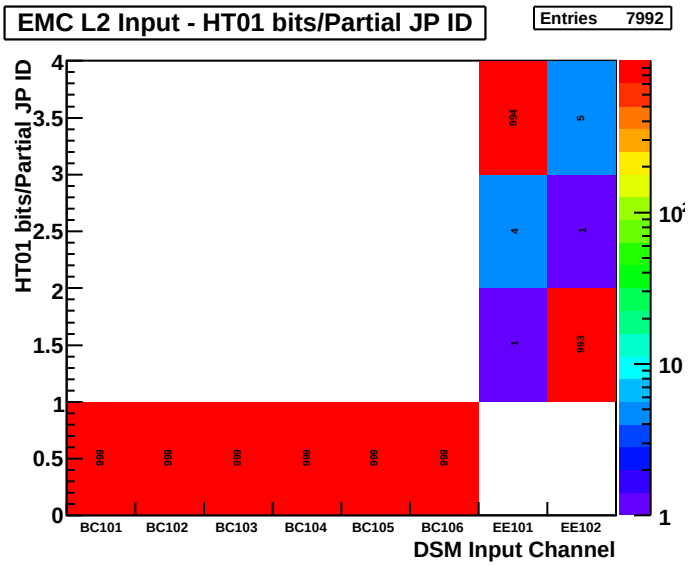

EMC L2 Input - JPY/JPB bits
Entries 622
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

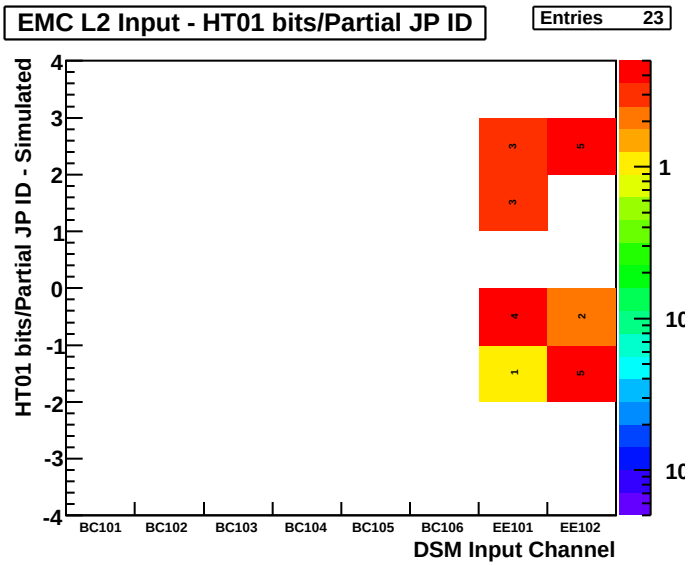

EMC L2 Input - JPZ/JPC bits
Entries 7992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

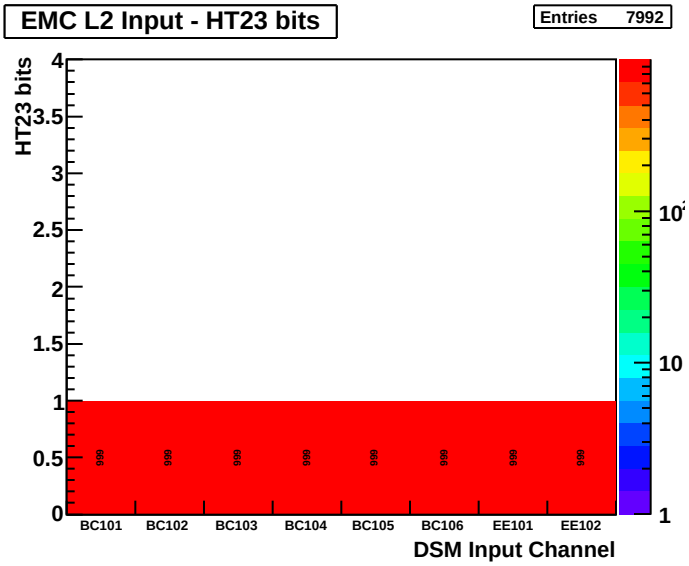

EMC L2 Input - JPZ/JPC bits
Entries 617
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

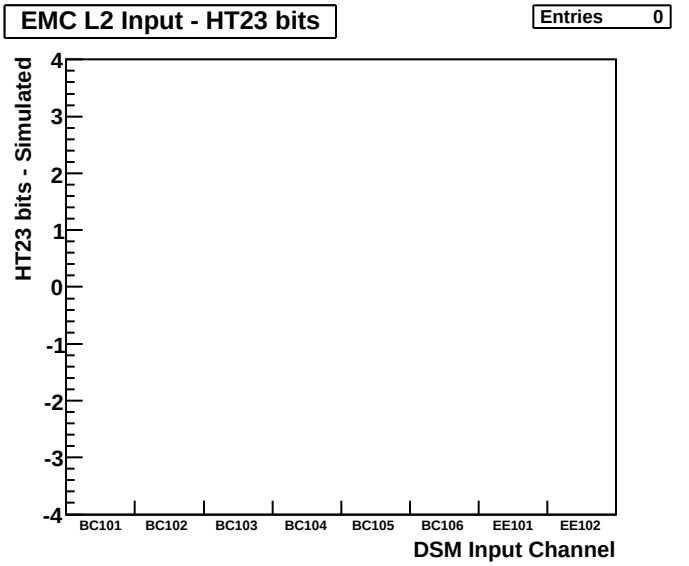

EMC L2 Input - Partial JP Sum
Entries 7992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

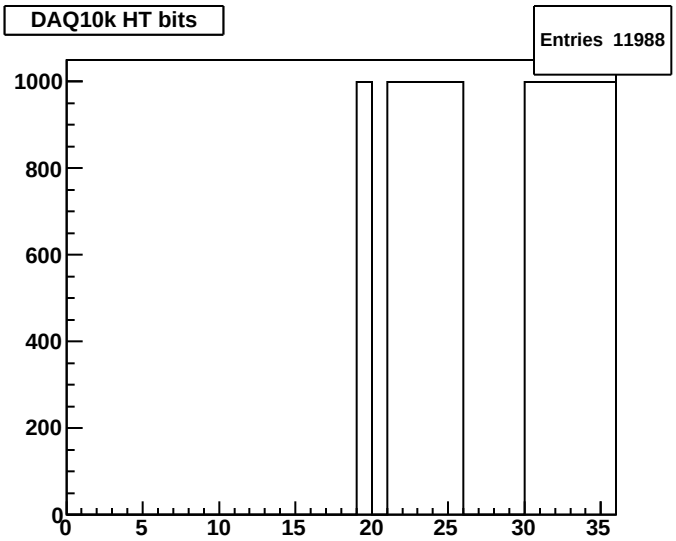

EMC L2 Input - Partial JP Sum
Entries 3569
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

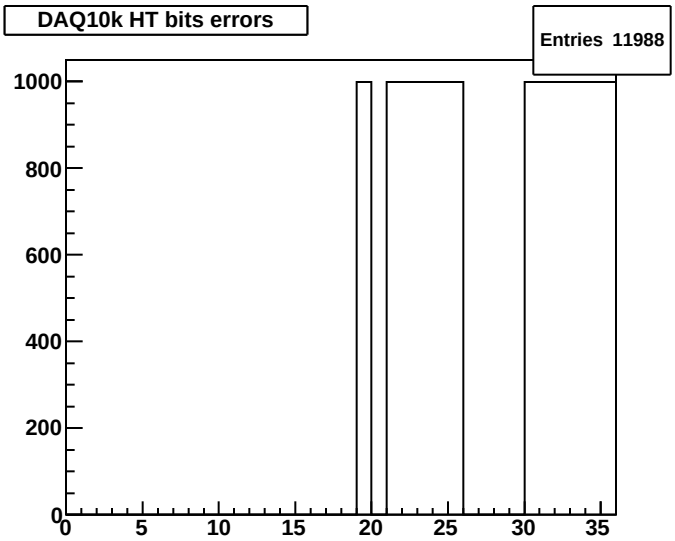

EMC L2 Input - HT01 bits/Partial JP ID
Entries 7992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

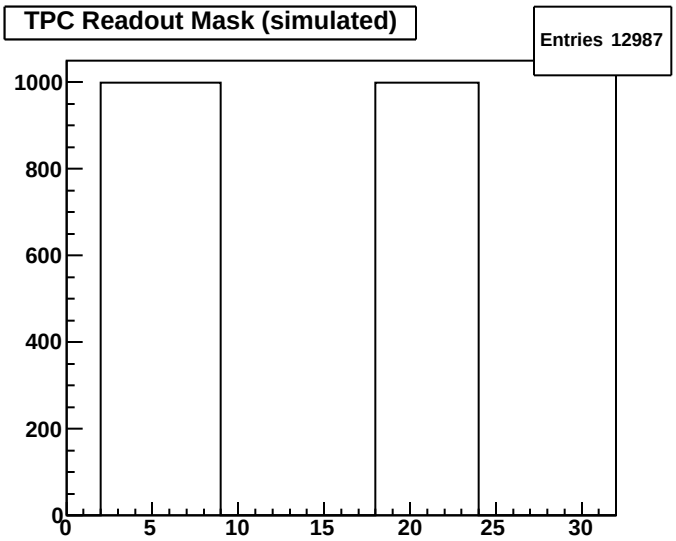

EMC L2 Input - HT01 bits/Partial JP ID
Entries 23
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

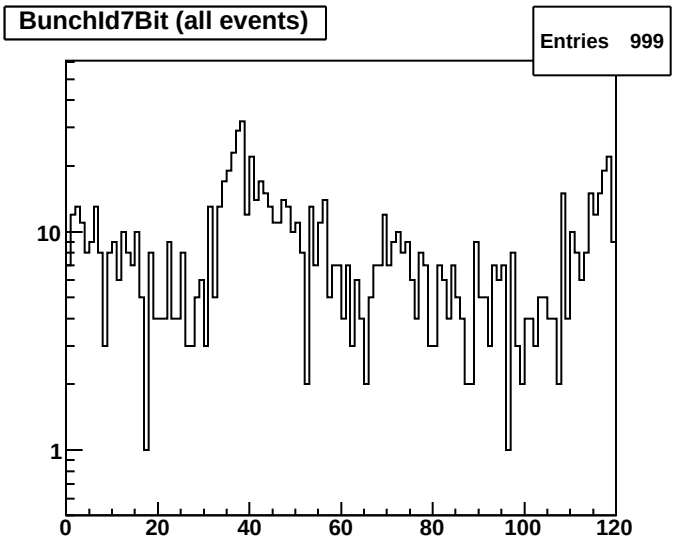

EMC L2 Input - HT23 bits
Entries 7992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

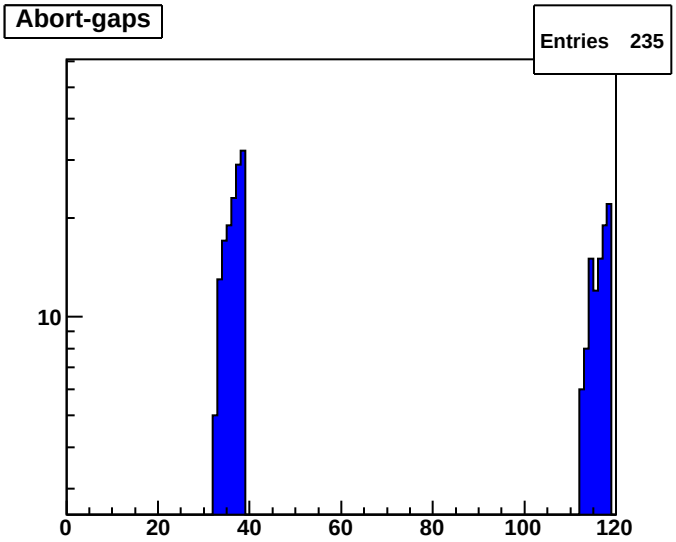

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

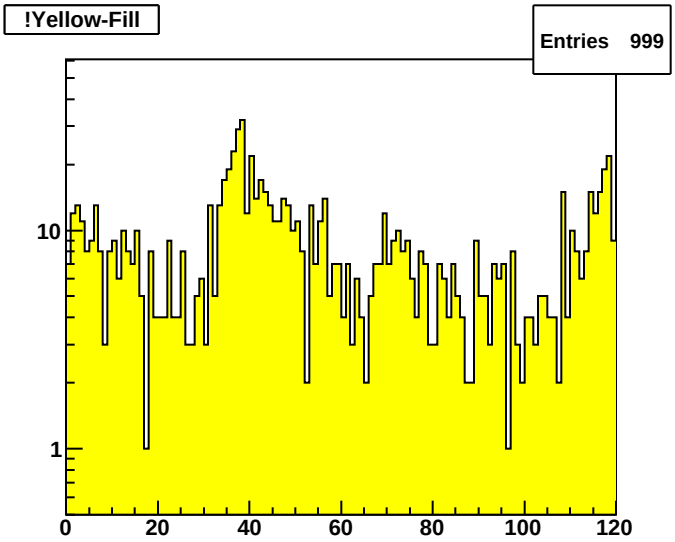

DAQ10k HT bits
Entries 11988
1000
800
600
400
200
0
0 5 10 15 20 25 30 35

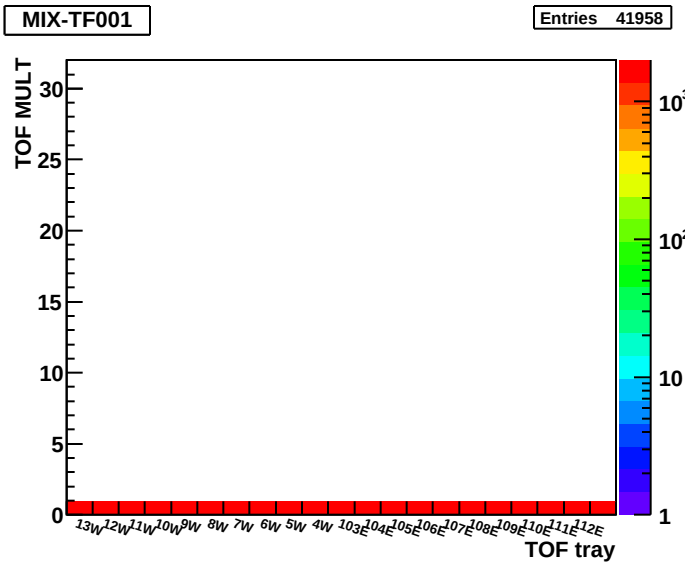

DAQ10k HT bits errors
Entries 11988
1000
800
600
400
200
0
0 5 10 15 20 25 30 35

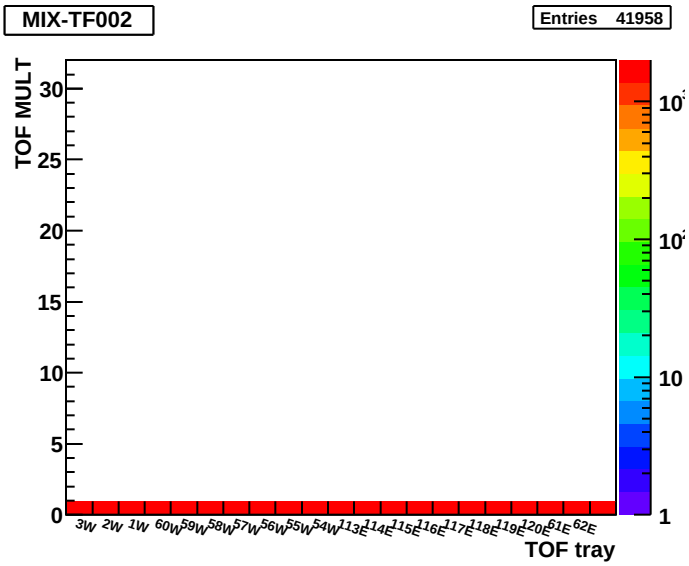

TPC Readout Mask (simulated)
Entries 12987
1000
800
600
400
200
0
0 5 10 15 20 25 30

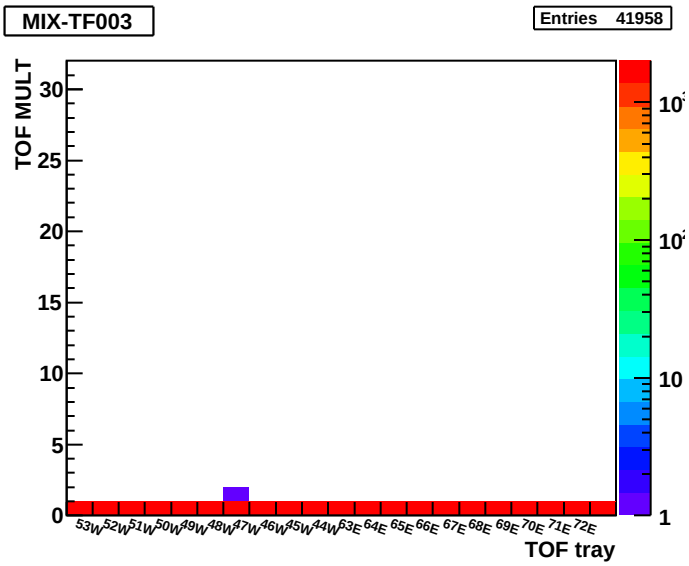

BunchId7Bit (all events)
Entries 999
10
1
0 20 40 60 80 100 120

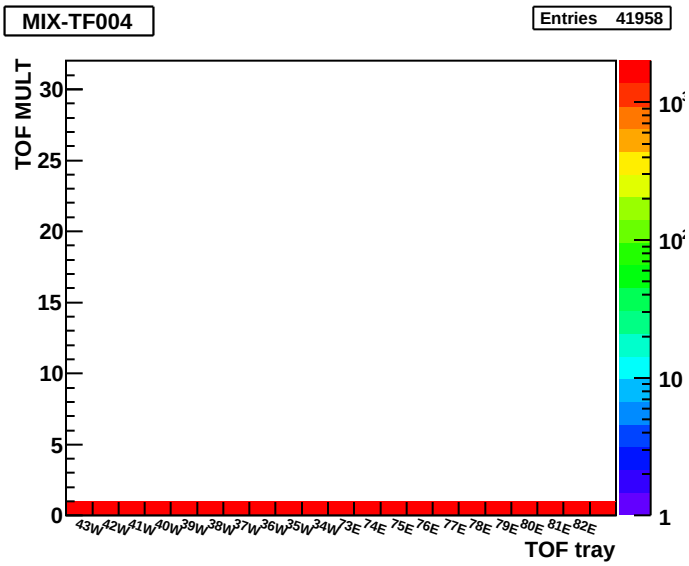

Abort-gaps
Entries 235
10
0 20 40 60 80 100 120

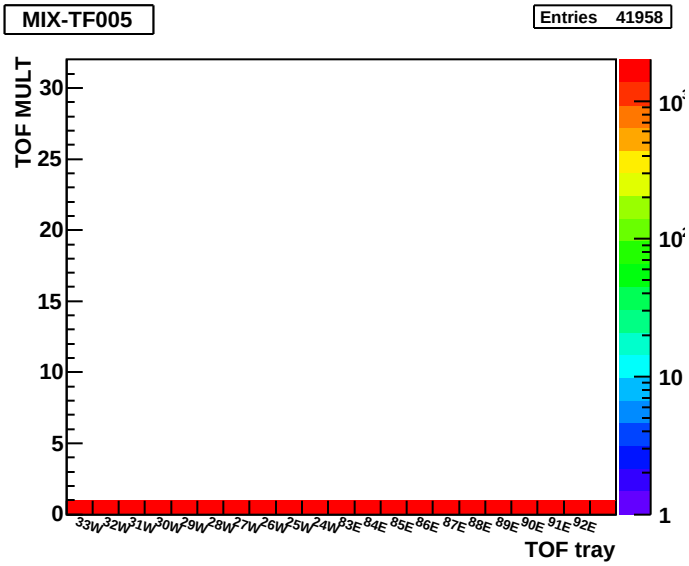

!Yellow-Fill
Entries 999
10
1
0 20 40 60 80 100 120

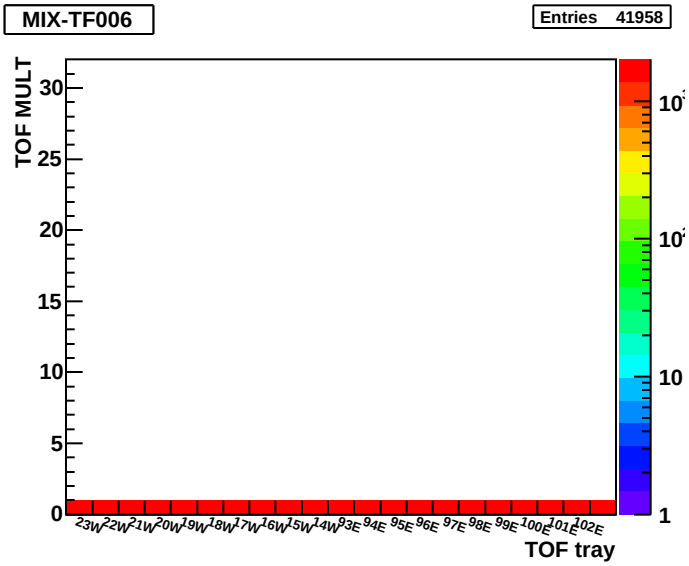

MIX-TF001
Entries 41958
TOF MULT
TOF tray

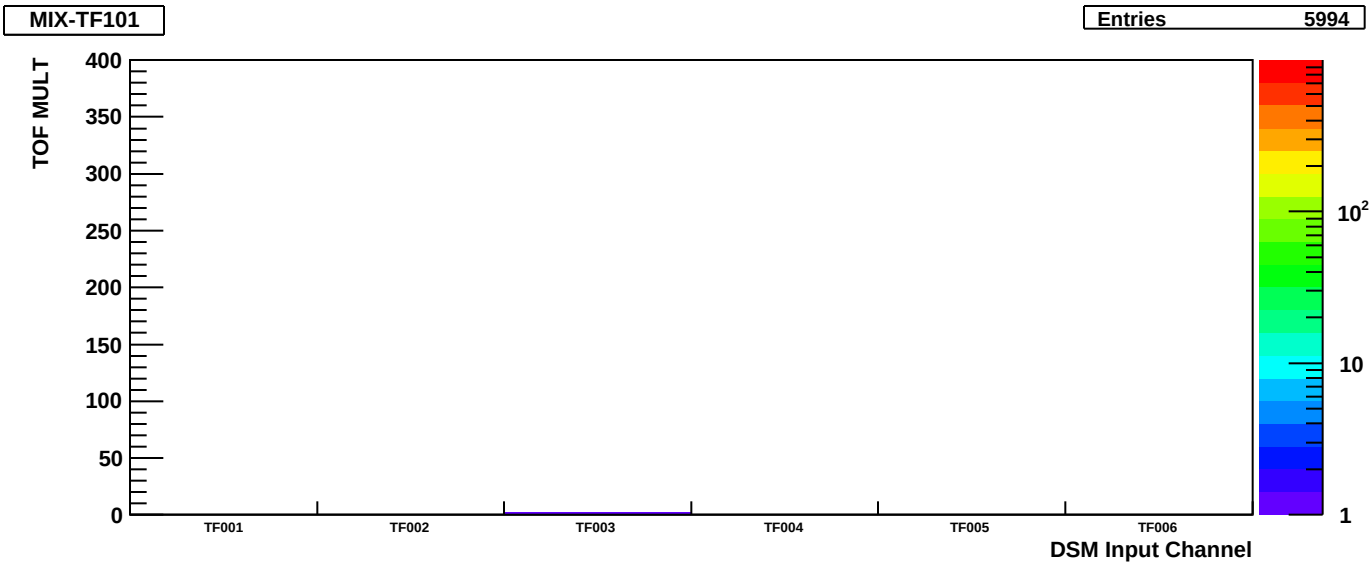

MIX-TF002
Entries 41958
TOF MULT
TOF tray

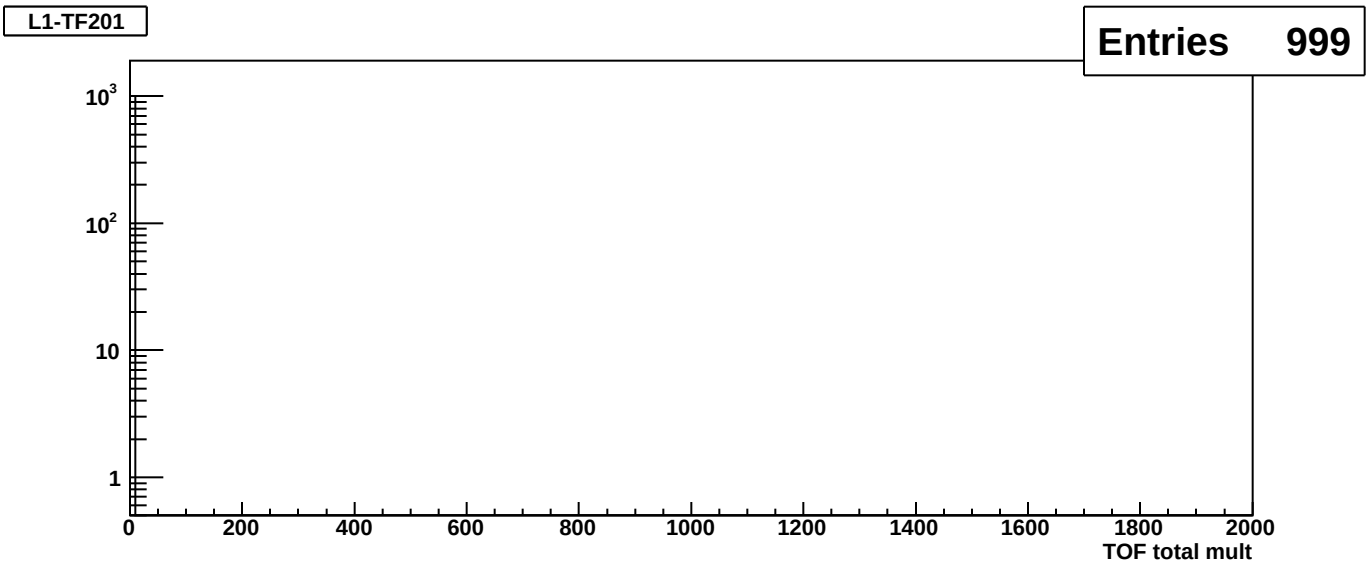

MIX-TF003
Entries 41958
TOF MULT
TOF tray

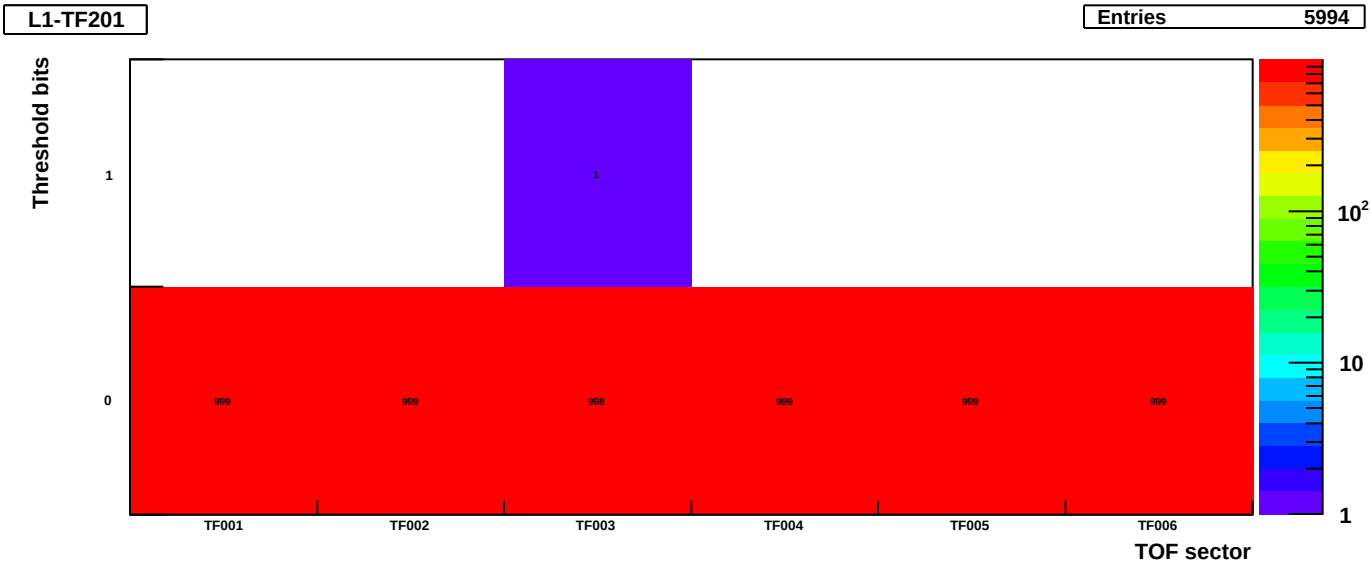

MIX-TF004
Entries 41958
TOF MULT
TOF tray

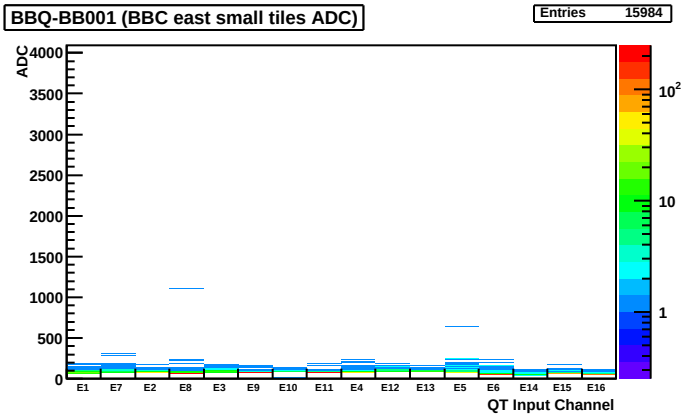

MIX-TF005
Entries 41958
TOF MULT
TOF tray

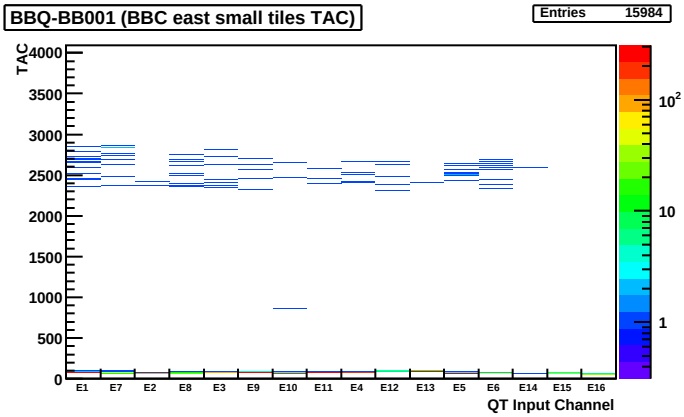

MIX-TF006
Entries 41958
TOF MULT
TOF tray

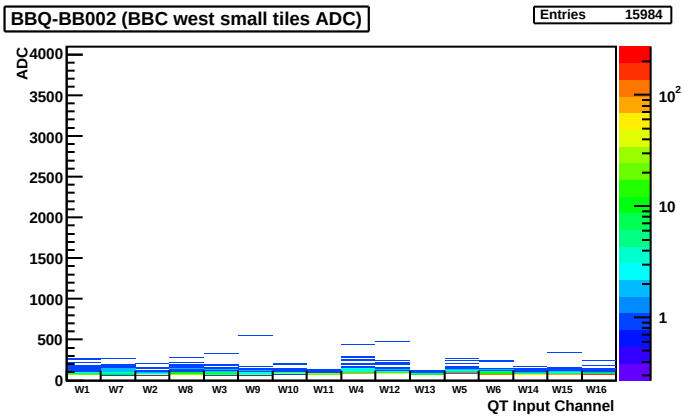

MIX-TF101
Entries 5994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^2
10
1

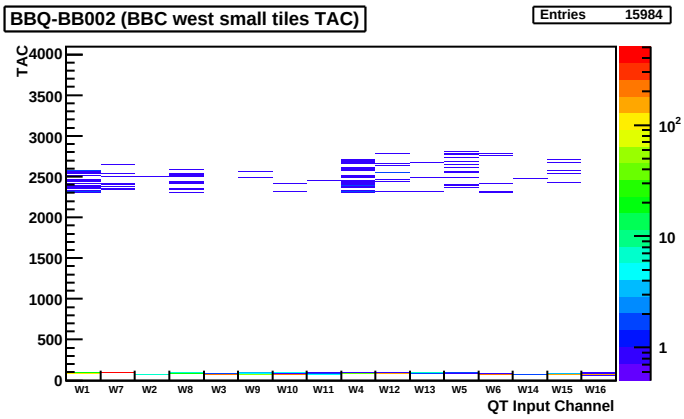

L1-TF201
Entries 999
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

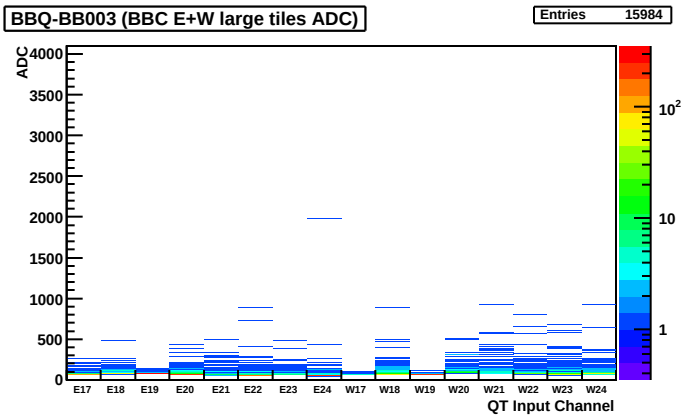

L1-TF201
Entries 5994
Threshold bits
1
0
1
999
999
998
999
999
999
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^2
10
1

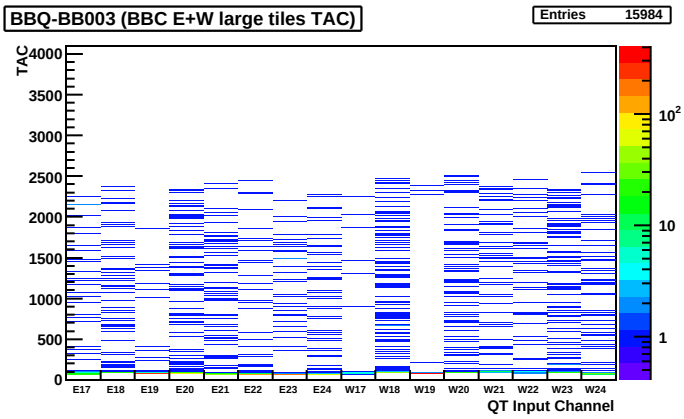

BBQ-BB001 (BBC east small tiles ADC)
Entries 15984
ADC
QT Input Channel

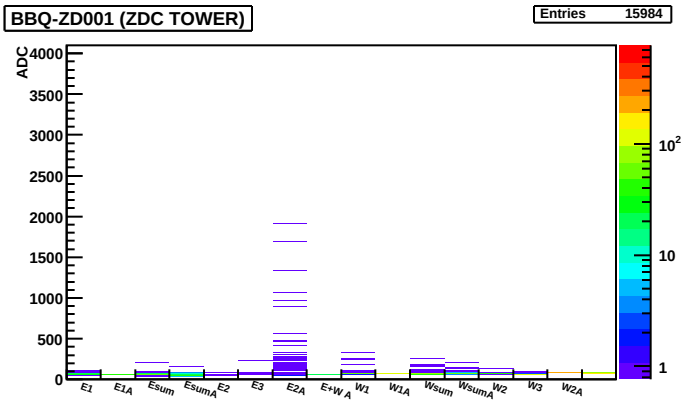

BBQ-BB001 (BBC east small tiles TAC)
Entries 15984
TAC
QT Input Channel

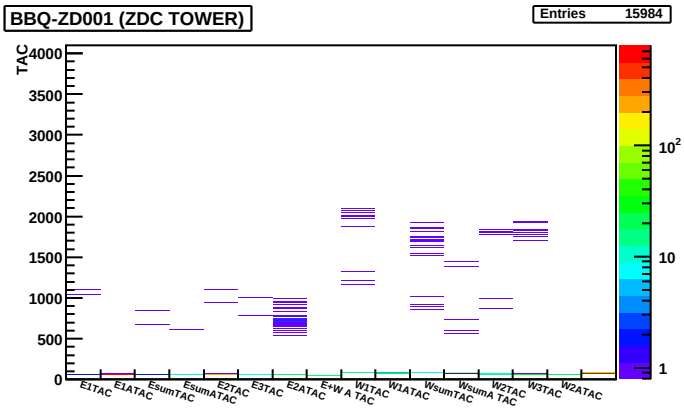

BBQ-BB002 (BBC west small tiles ADC)
Entries 15984
ADC
QT Input Channel

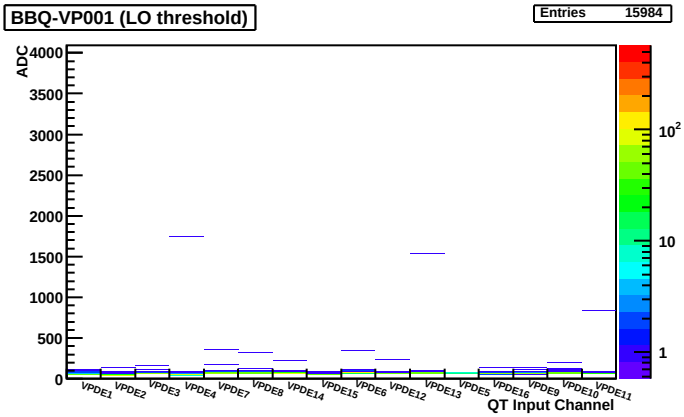

BBQ-BB002 (BBC west small tiles TAC)
Entries 15984
TAC
QT Input Channel

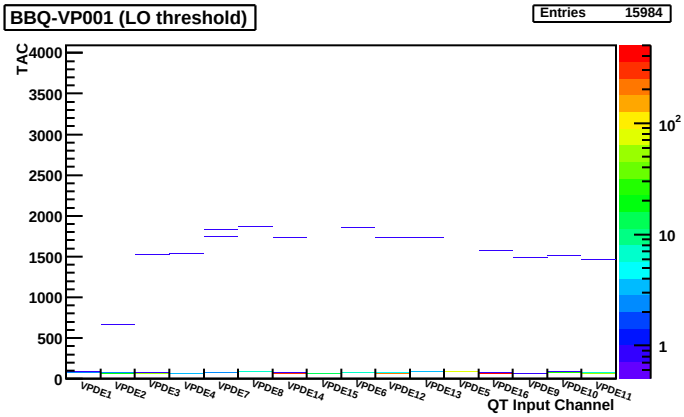

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 15984
ADC
QT Input Channel

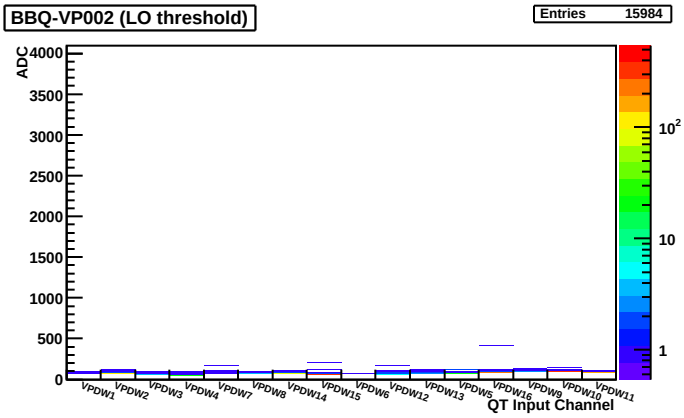

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 15984
TAC
QT Input Channel

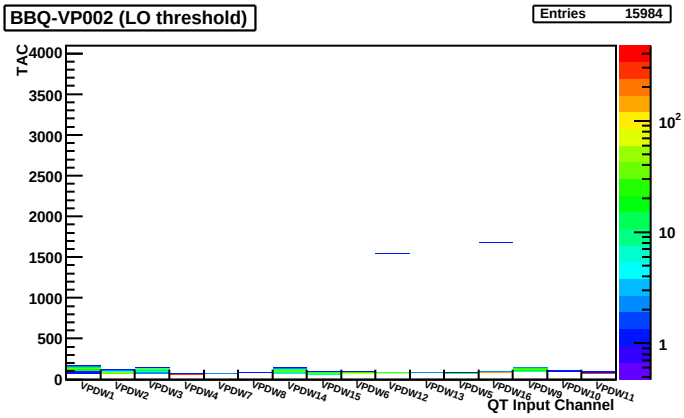

BBQ-ZD001 (ZDC TOWER)
Entries 15984
ADC

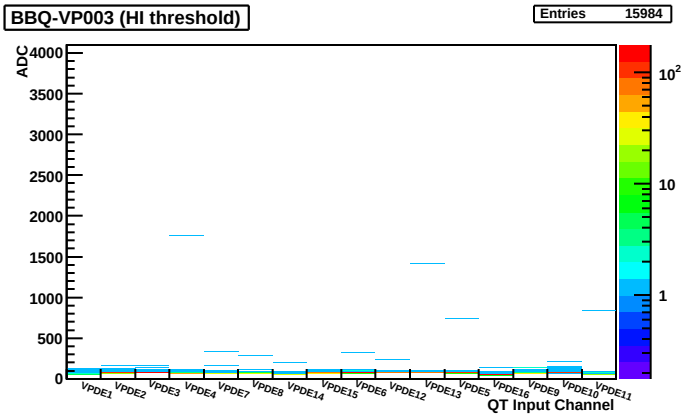

BBQ-ZD001 (ZDC TOWER)
Entries 15984
TAC

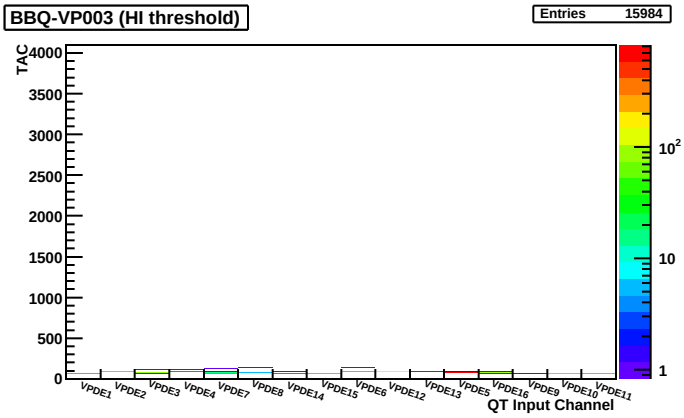

BBQ-VP001 (LO threshold)
Entries 15984
ADC
QT Input Channel

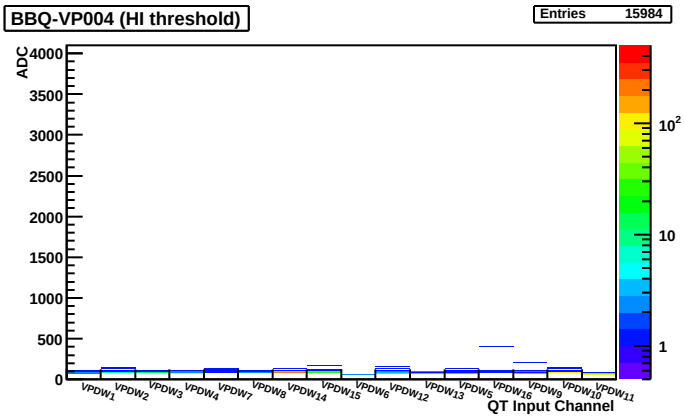

BBQ-VP001 (LO threshold)
Entries 15984
TAC
QT Input Channel

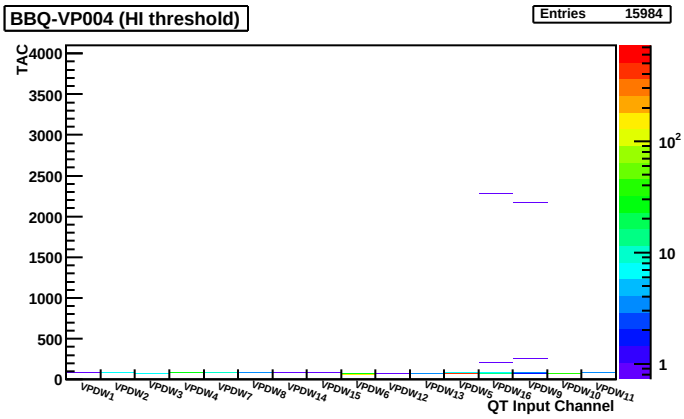

BBQ-VP002 (LO threshold)
Entries 15984
ADC
QT Input Channel

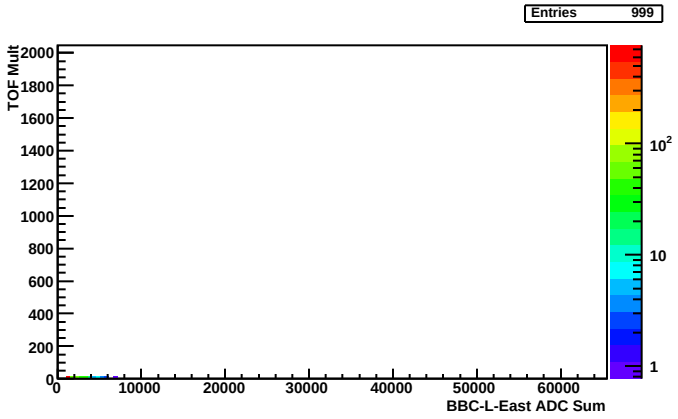

BBQ-VP002 (LO threshold)
Entries 15984
TAC
QT Input Channel

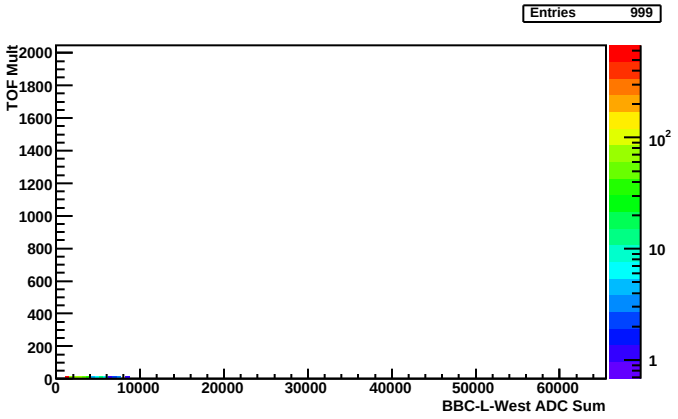

BBQ-VP003 (HI threshold)
Entries 15984
ADC
QT Input Channel

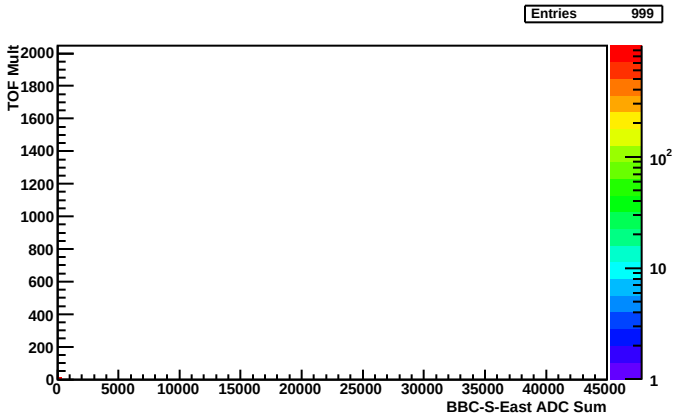

BBQ-VP003 (HI threshold)
Entries 15984
TAC
QT Input Channel

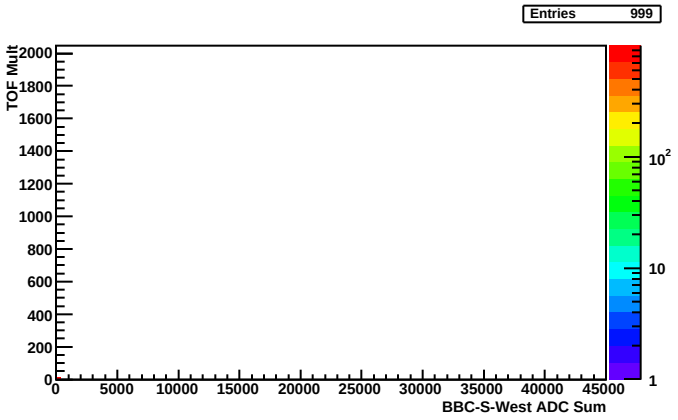

BBQ-VP004 (HI threshold)
Entries 15984
ADC
QT Input Channel

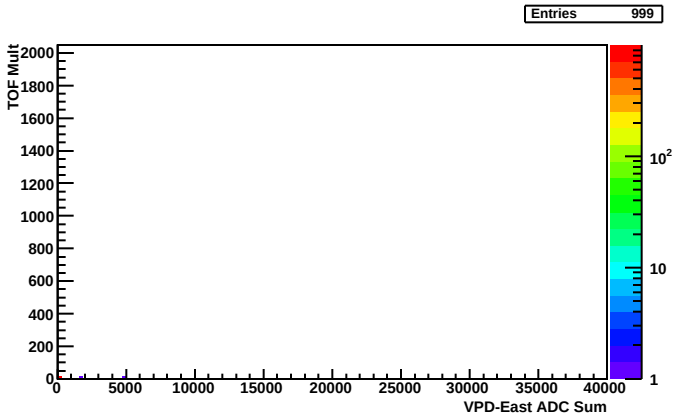

BBQ-VP004 (HI threshold)
Entries 15984
TAC
QT Input Channel

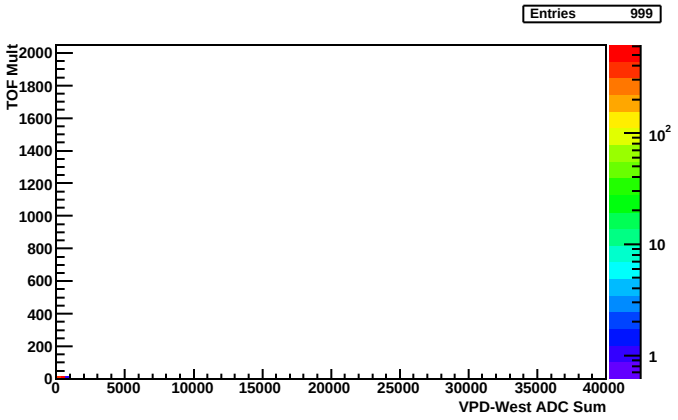

Entries 999
TOF Mult
BBC-L-East ADC Sum

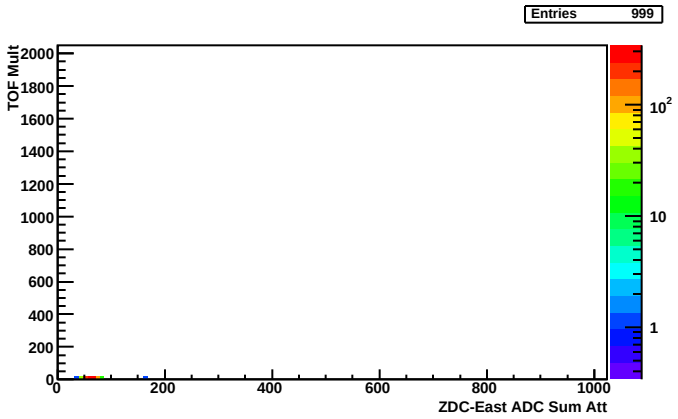

Entries 999
TOF Mult
BBC-L-West ADC Sum

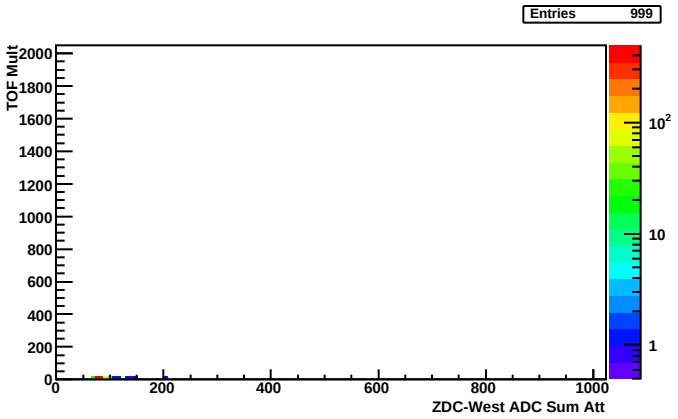

Entries 999
TOF Mult
BBC-S-East ADC Sum

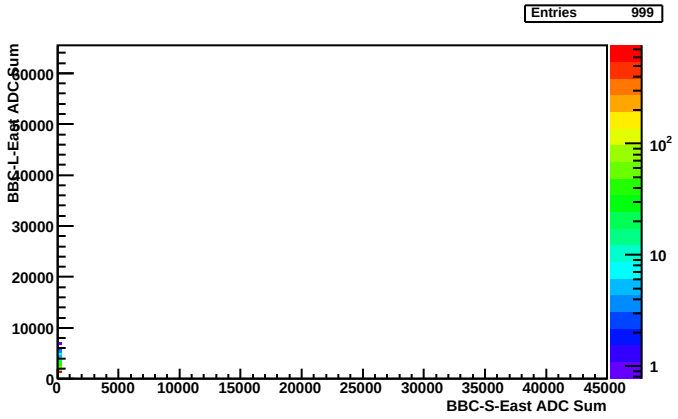

Entries 999
TOF Mult
BBC-S-West ADC Sum

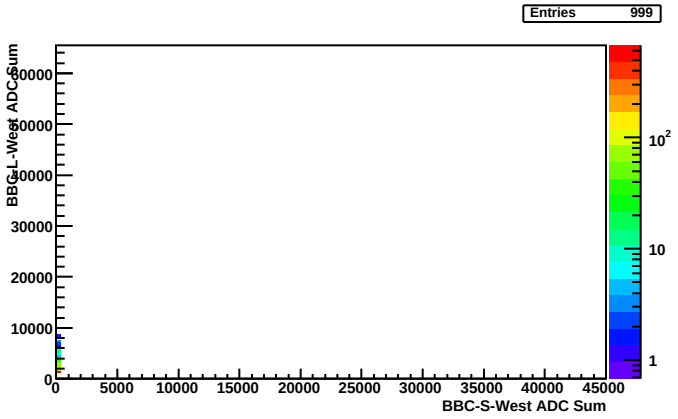

Entries 999
TOF Mult
VPD-East ADC Sum

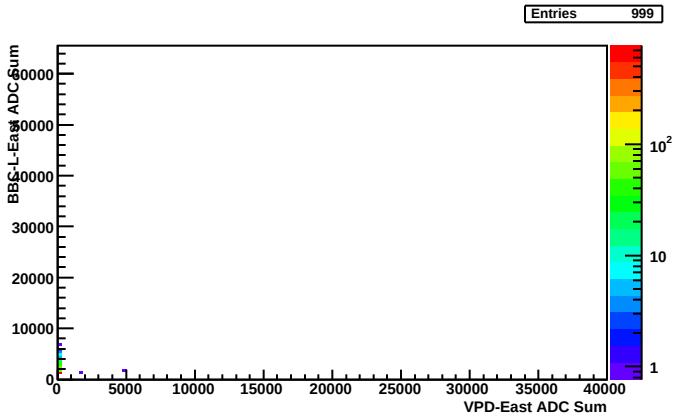

Entries 999
TOF Mult
VPD-West ADC Sum

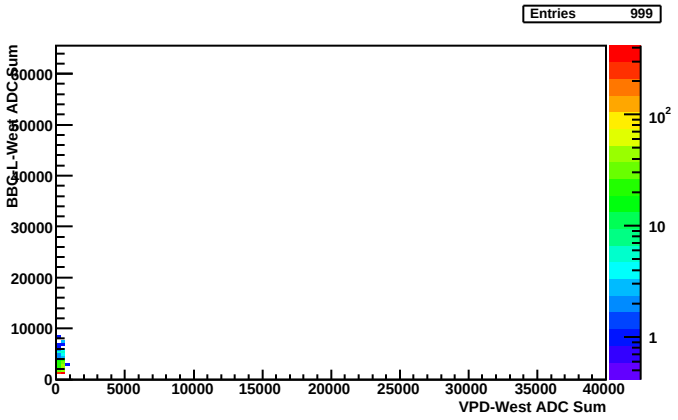

Entries 999
TOF Mult
ZDC-East ADC Sum Att

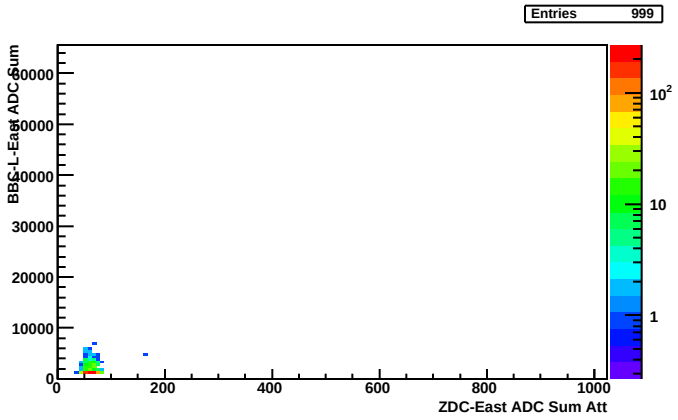

Entries 999
TOF Mult
ZDC-West ADC Sum Att

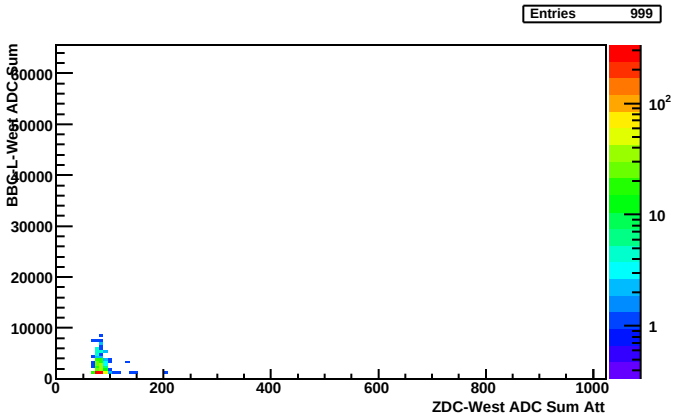

Entries 999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

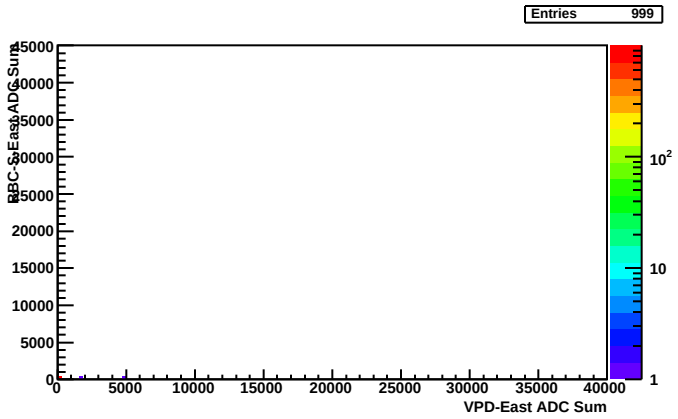

Entries 999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

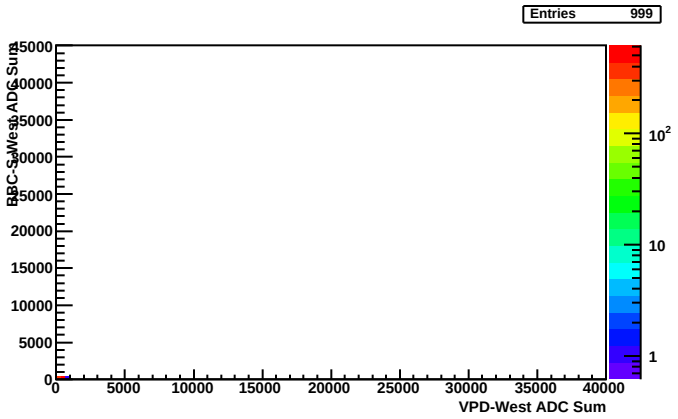

Entries 999
BBC-L-East ADC Sum
VPD-East ADC Sum

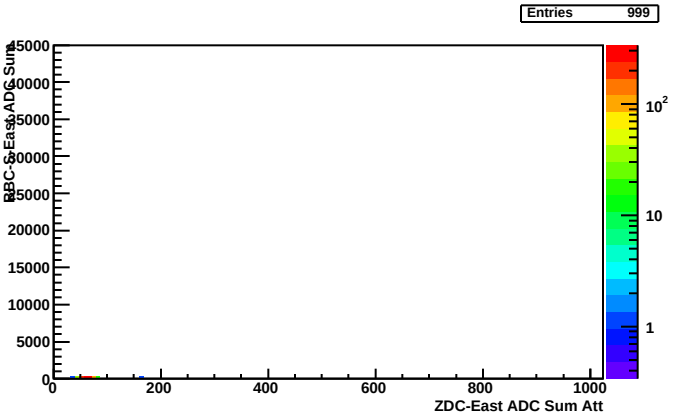

Entries 999
BBC-L-West ADC Sum
VPD-West ADC Sum

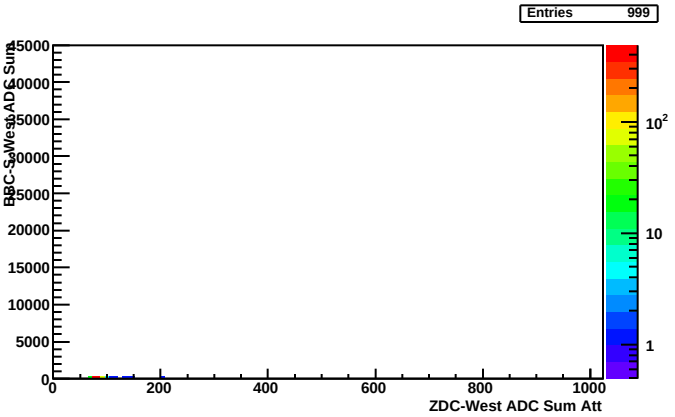

Entries 999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

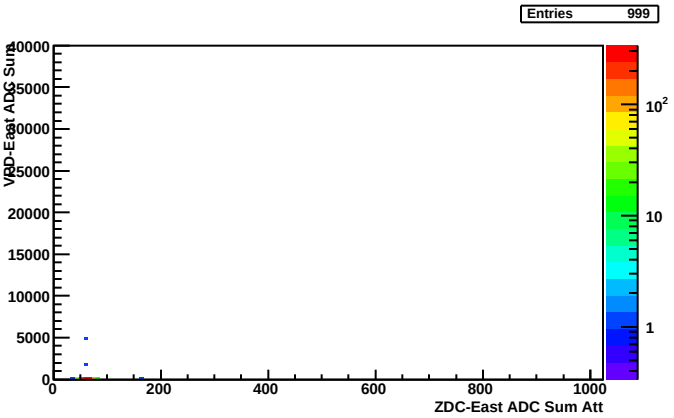

Entries 999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

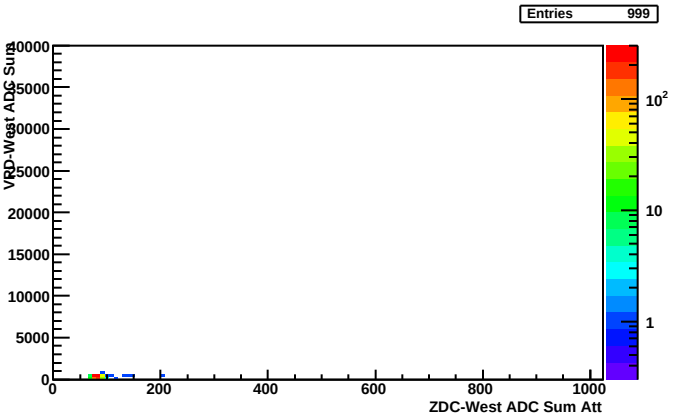

Entries 999
BBC-S-East ADC Sum
VPD-East ADC Sum

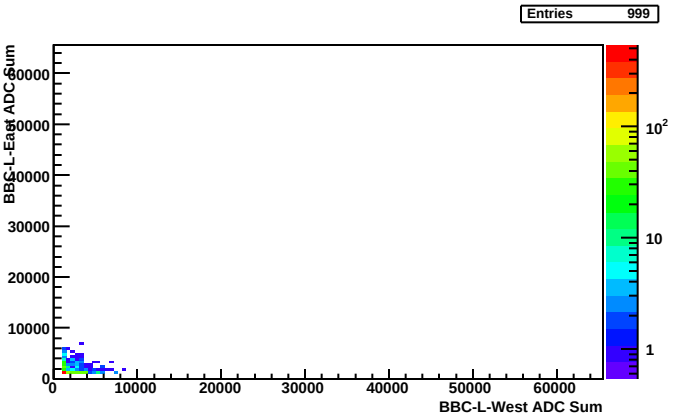

Entries 999
BBC-S-West ADC Sum
VPD-West ADC Sum

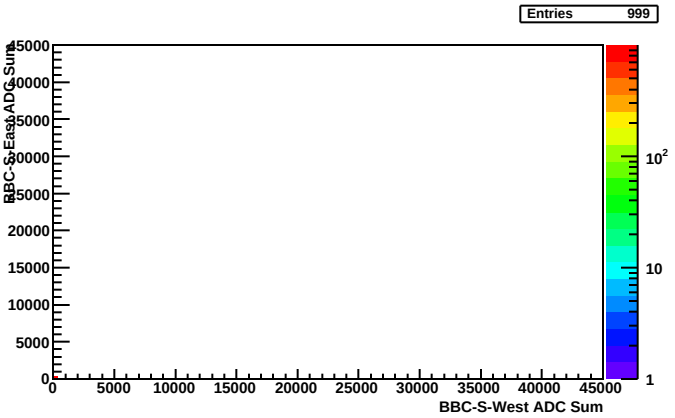

Entries 999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

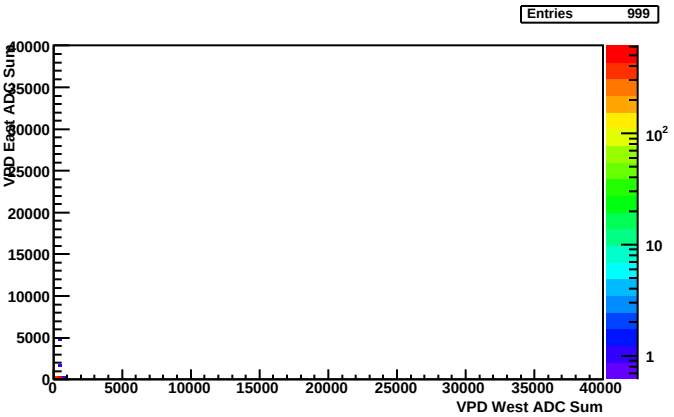

Entries 999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

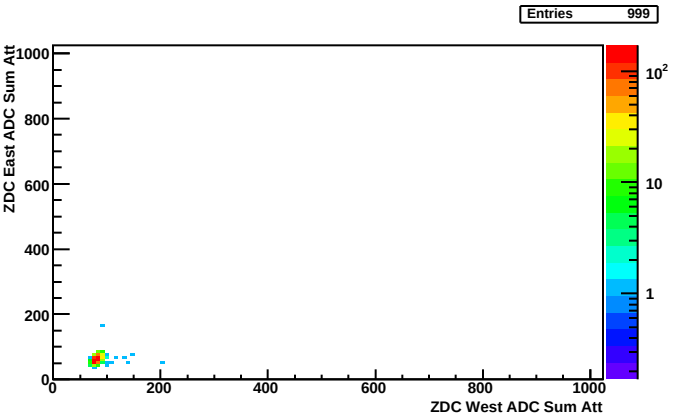

Entries 999
VPD-East ADC Sum
ZDC-East ADC Sum Att

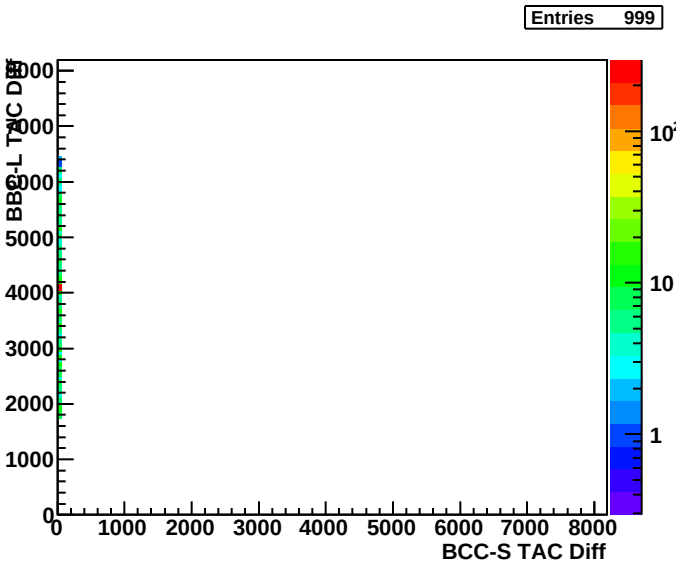

Entries 999
VPD-West ADC Sum
ZDC-West ADC Sum Att

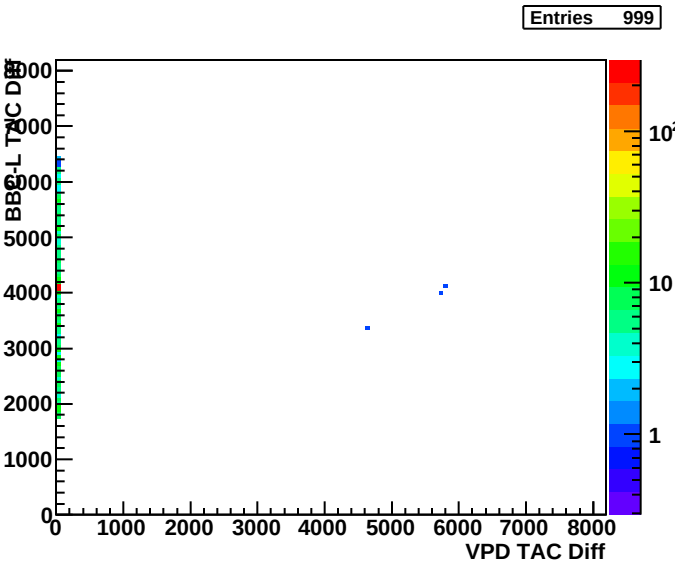

Entries 999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

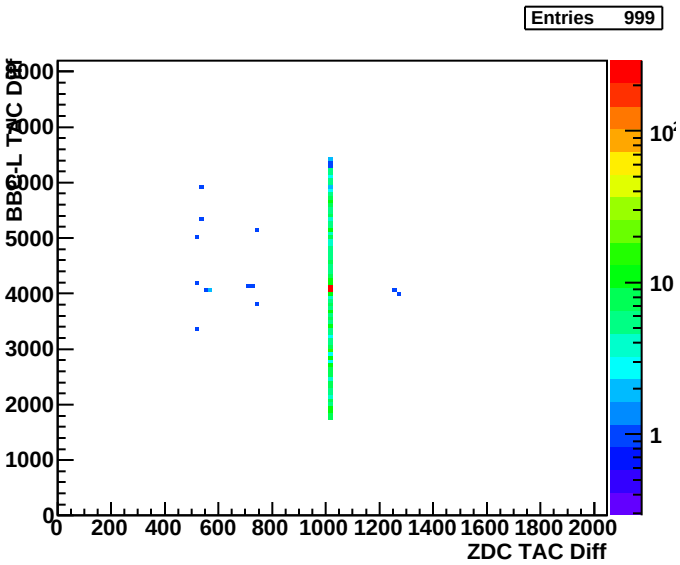

Entries 999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

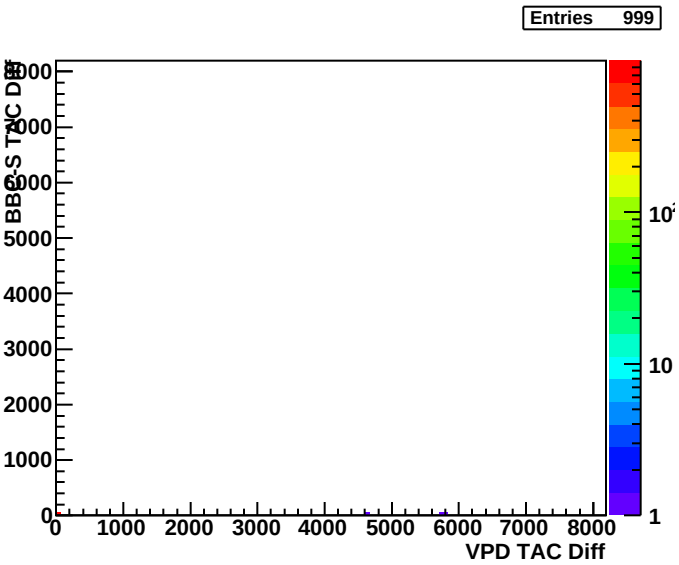

Entries 999
VPD East ADC Sum
VPD West ADC Sum

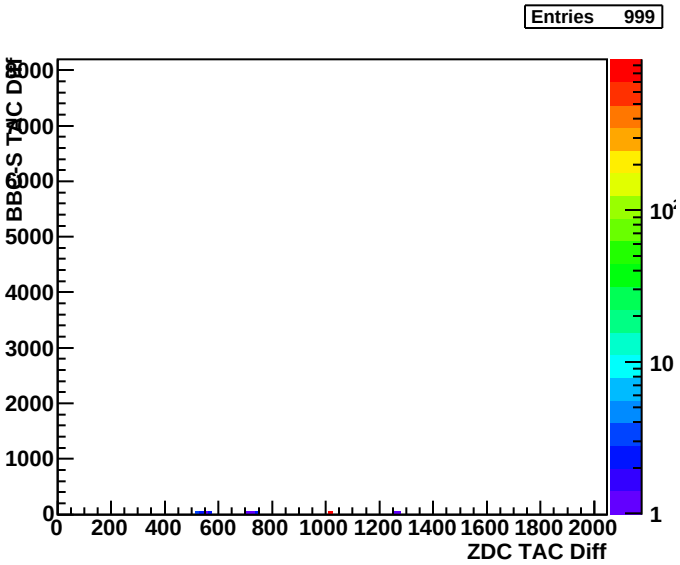

Entries 999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

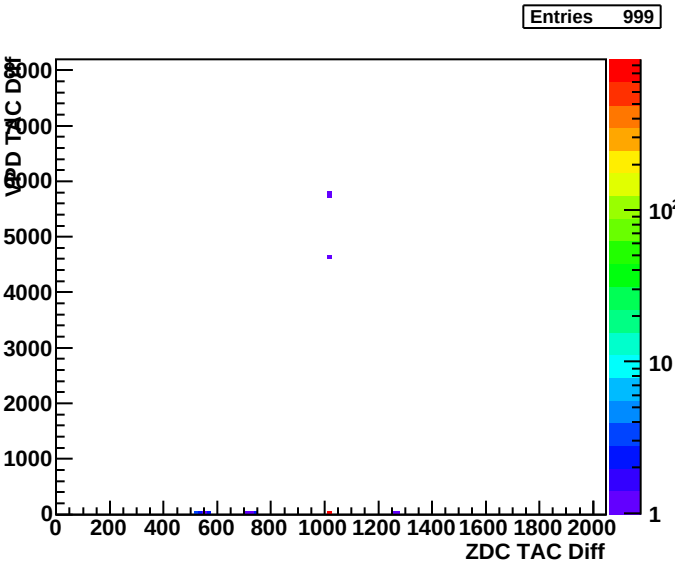

Entries 999
BBC-L TAC Diff
BCC-S TAC Diff

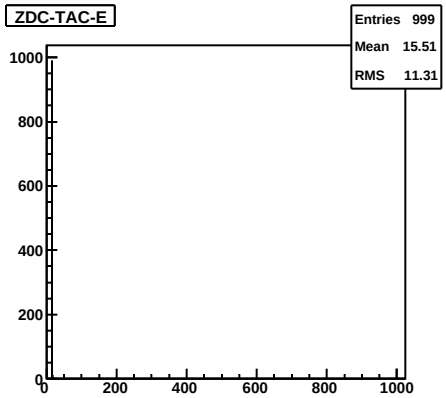

Entries 999
BBC-L TAC Diff
VPD TAC Diff

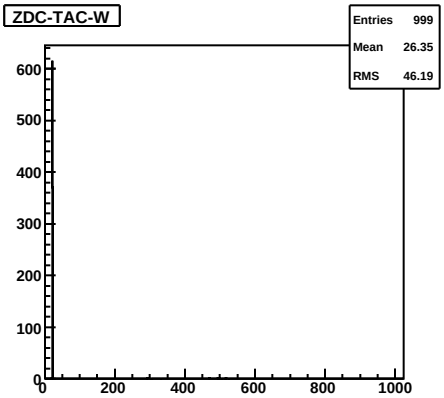

Entries 999
BBC-L TAC Diff
ZDC TAC Diff

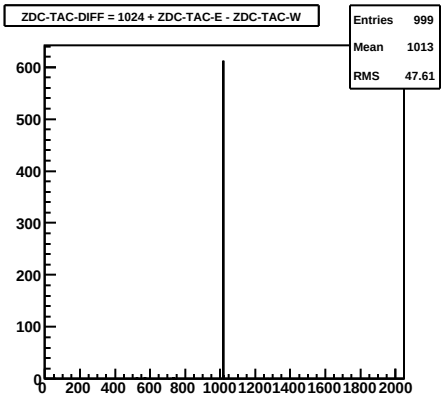

Entries 999
BBC-S TAC Diff
VPD TAC Diff

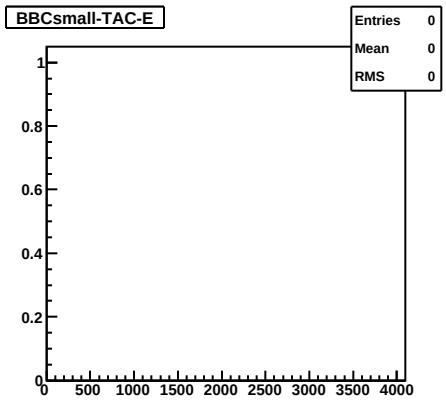

Entries 999
BBC-S TAC Diff
ZDC TAC Diff

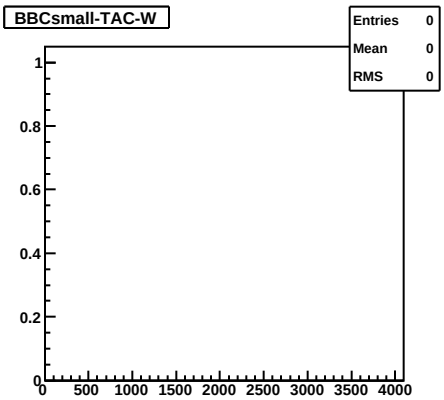

Entries 999
VPD TAC Diff
ZDC TAC Diff

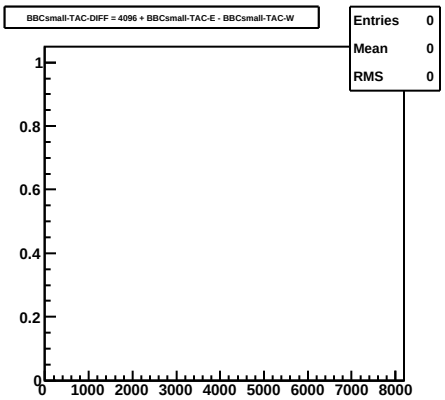

ZDC-TAC-E
Entries 999
Mean 15.51
RMS 11.31

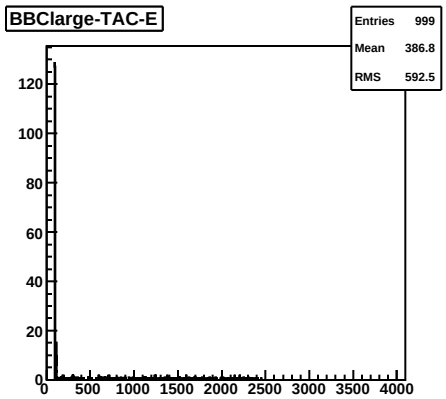

ZDC-TAC-W
Entries 999
Mean 26.35
RMS 46.19

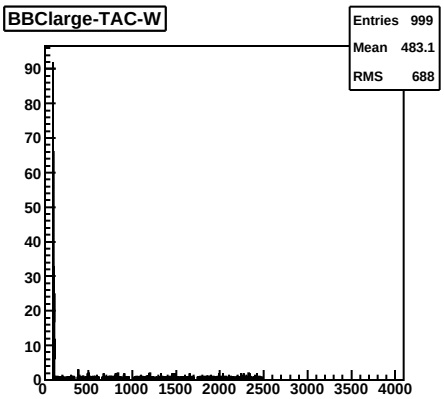

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 999
Mean 1013
RMS 47.61

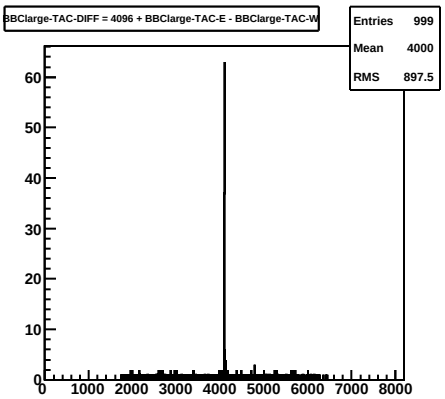

BBCsmall-TAC-E
Entries 0
Mean 0
RMS 0

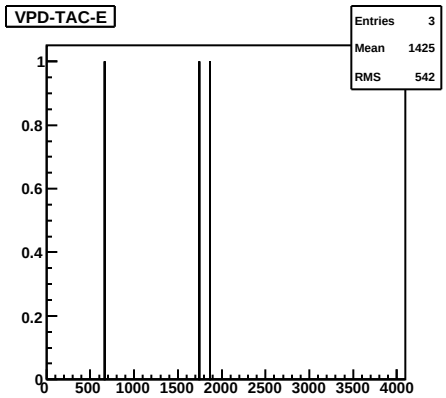

BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

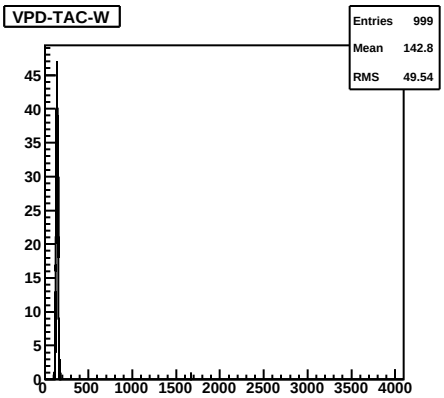

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

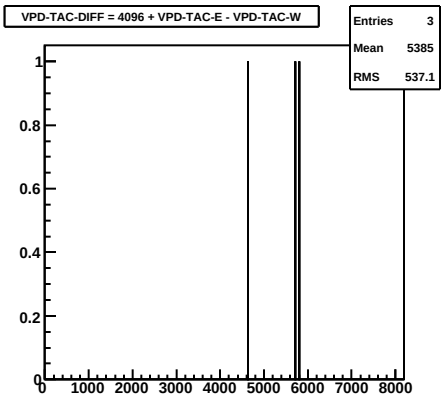

BBClarge-TAC-E
Entries 999
Mean 386.8
RMS 592.5

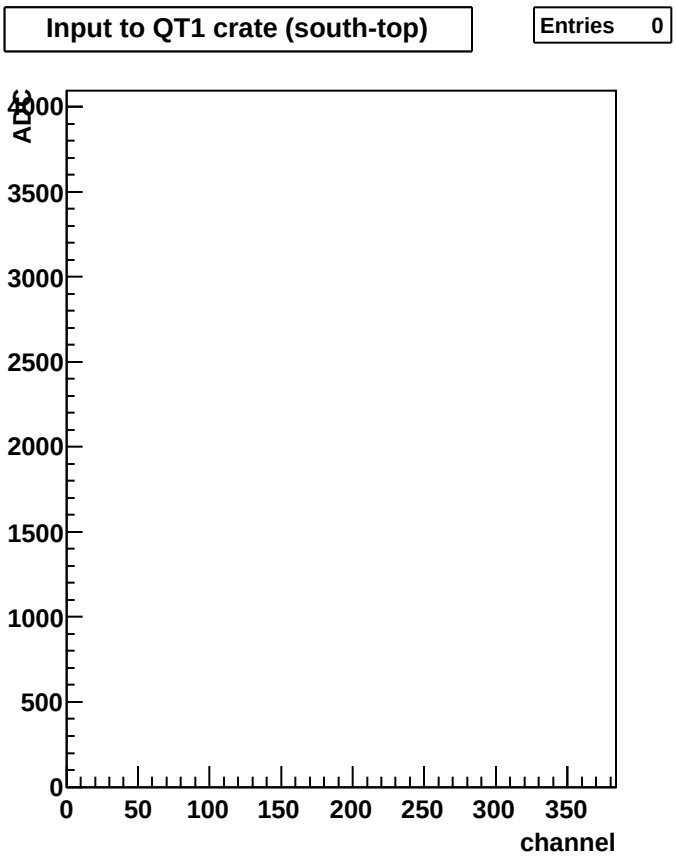

BBClarge-TAC-W
Entries 999
Mean 483.1
RMS 688

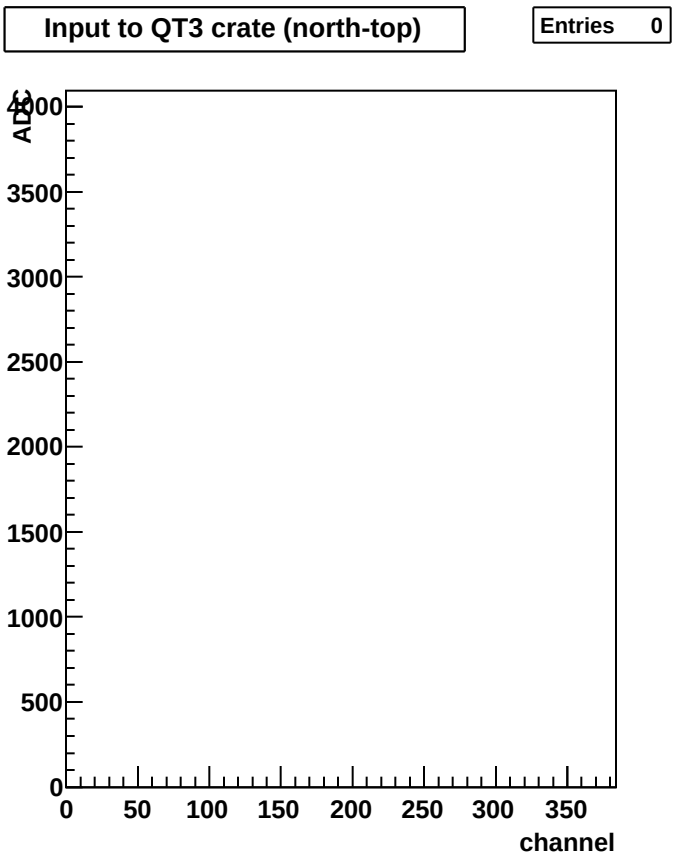

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 999
Mean 4000
RMS 897.5

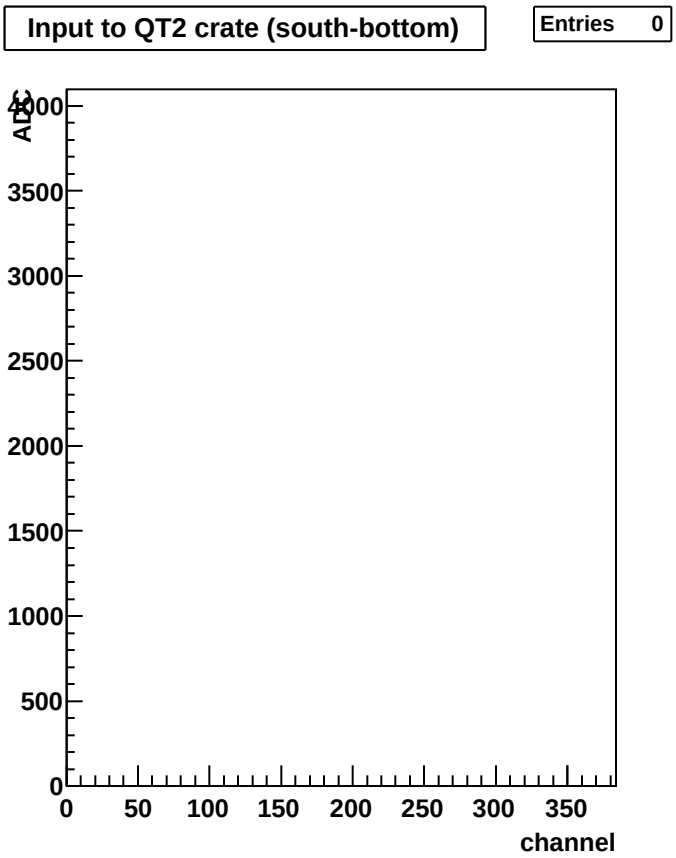

VPD-TAC-E
Entries 3
Mean 1425
RMS 542

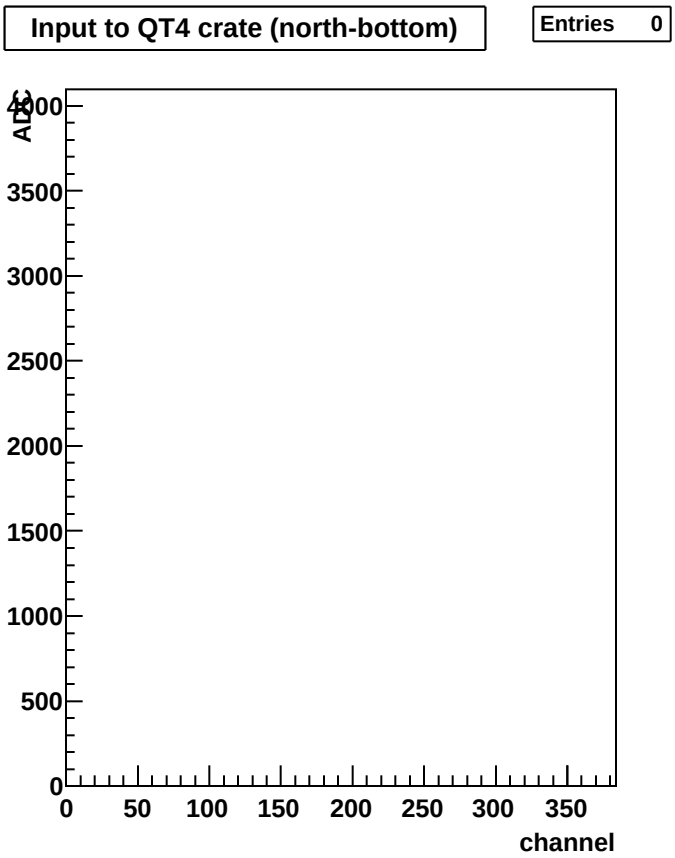

VPD-TAC-W
Entries 999
Mean 142.8
RMS 49.54

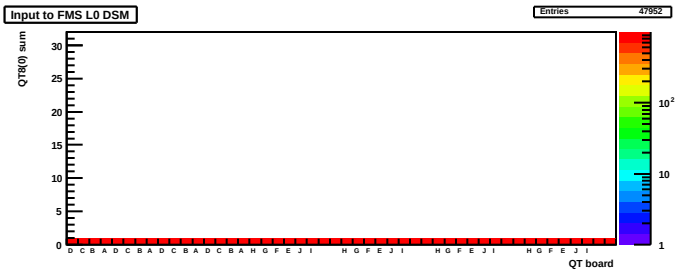

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 3
Mean 5385
RMS 537.1

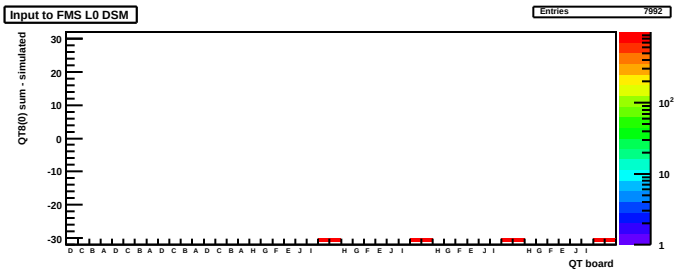

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

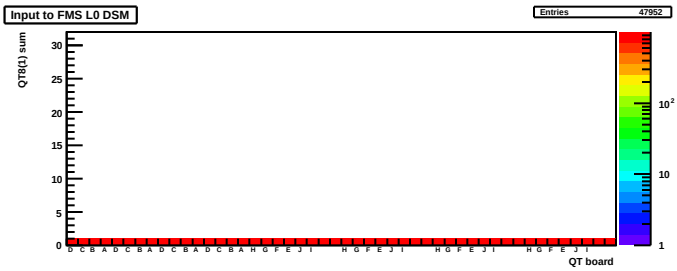

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

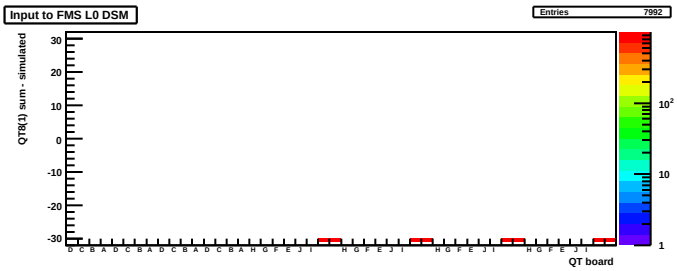

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

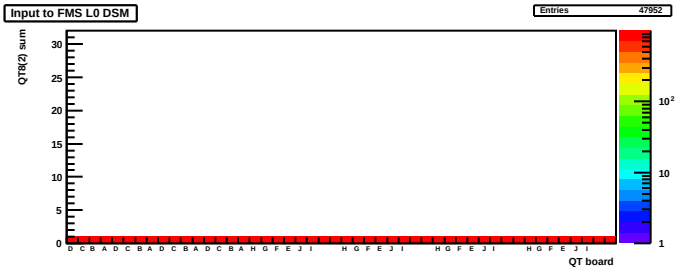

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

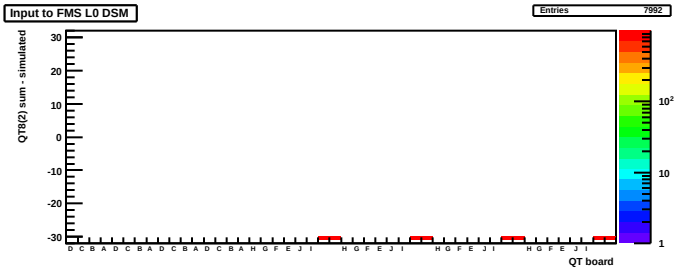

Input to FMS L0 DSM
Entries 47952
QT8(0) sum
QT board

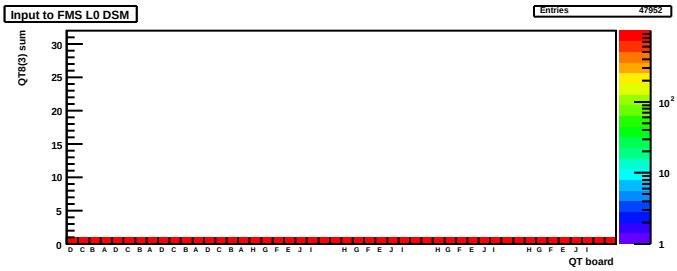

Input to FMS L0 DSM
Entries 7992
QT8(0) sum - simulated
QT board

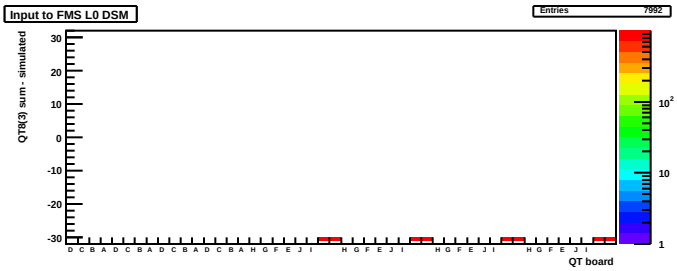

Input to FMS L0 DSM
Entries 47952
QT8(1) sum
QT board

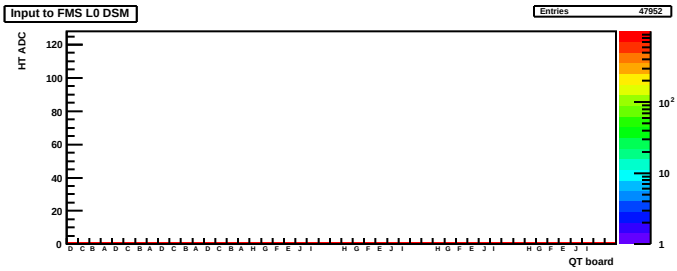

Input to FMS L0 DSM
Entries 7992
QT8(1) sum - simulated
QT board

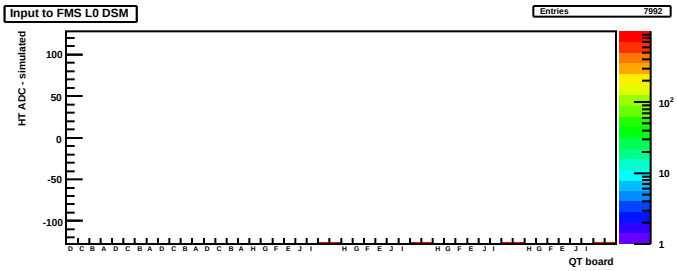

Input to FMS L0 DSM
Entries 47952
QT8(2) sum
QT board

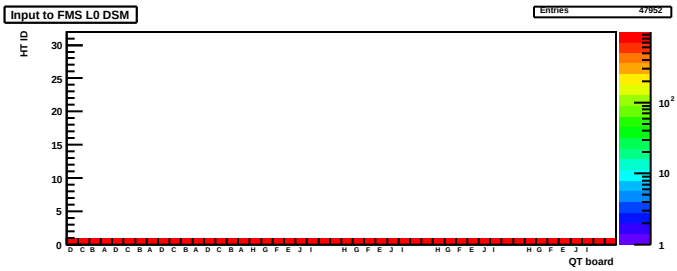

Input to FMS L0 DSM
Entries 7992
QT8(2) sum - simulated
QT board

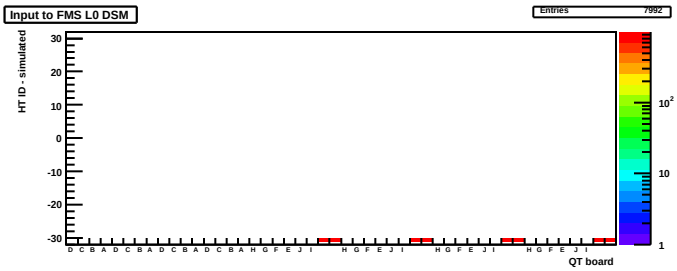

Input to FMS L0 DSM
Entries 47952
QT8(3) sum
QT board

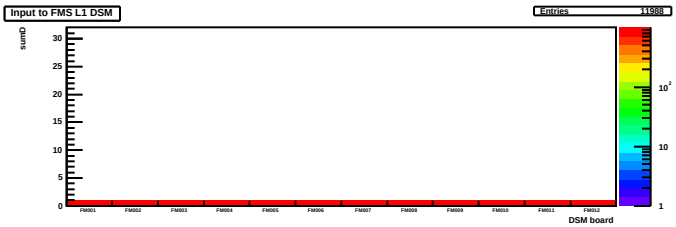

Input to FMS L0 DSM
Entries 7992
QT8(3) sum - simulated
QT board

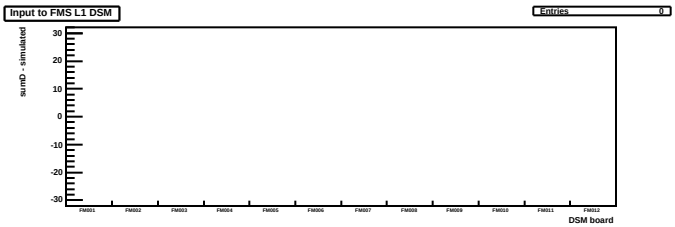

Input to FMS L0 DSM
Entries 47952
HT ADC
QT board

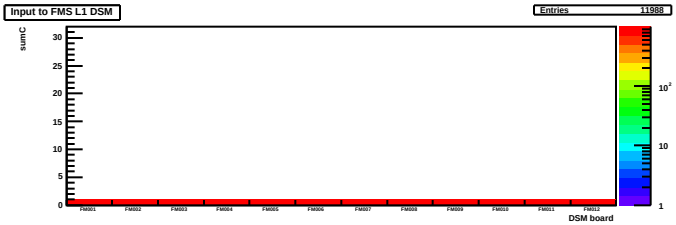

Input to FMS L0 DSM
Entries 7992
HT ADC - simulated
QT board

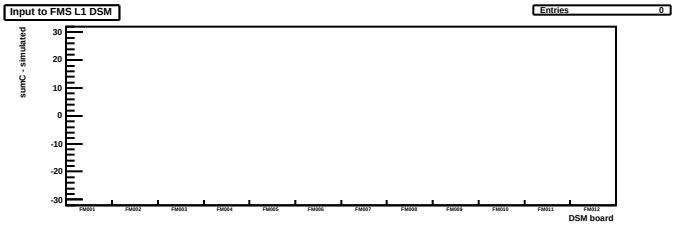

Input to FMS L0 DSM
Entries 47952
HT ID
QT board

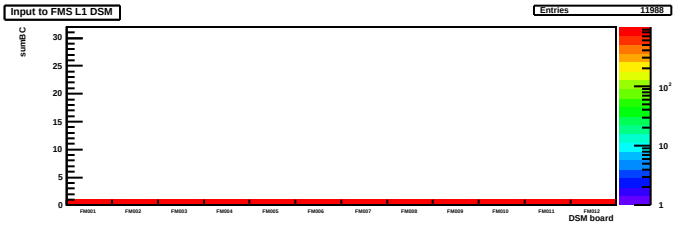

Input to FMS L0 DSM
Entries 7992
HT ID - simulated
QT board

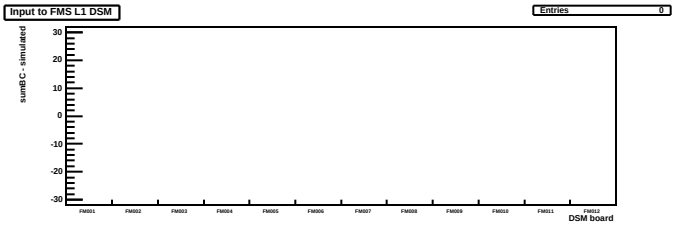

Input to FMS L1 DSM
Entries 11988
sumD
DSM board

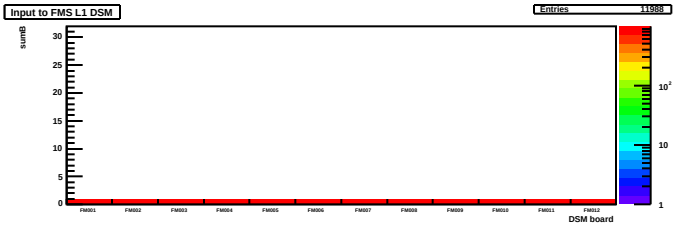

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

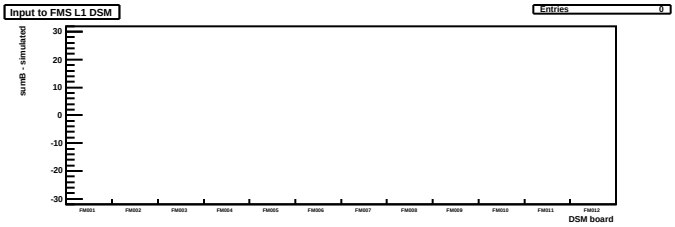

Input to FMS L1 DSM
Entries 11988
sumC
DSM board

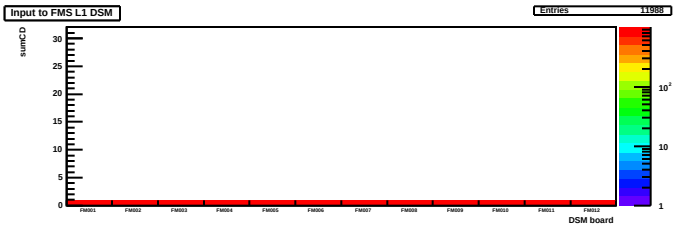

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

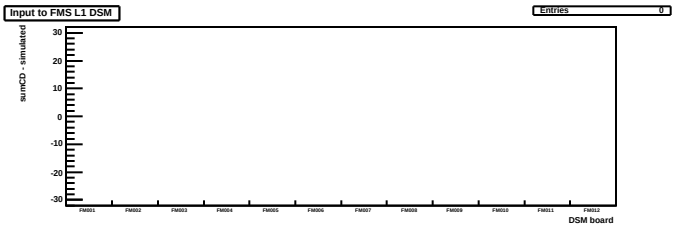

Input to FMS L1 DSM
Entries 11988
sumBC
DSM board

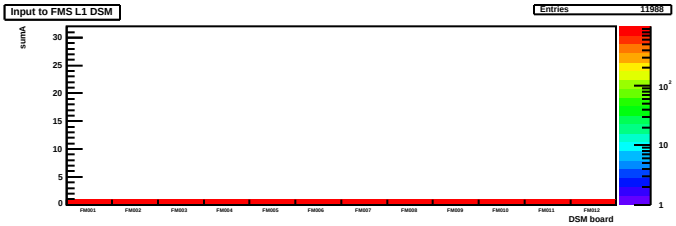

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

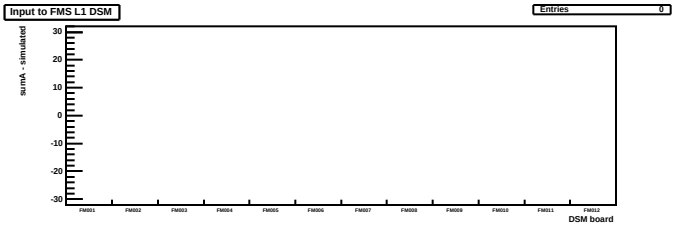

Input to FMS L1 DSM
Entries 11988
sumB
DSM board

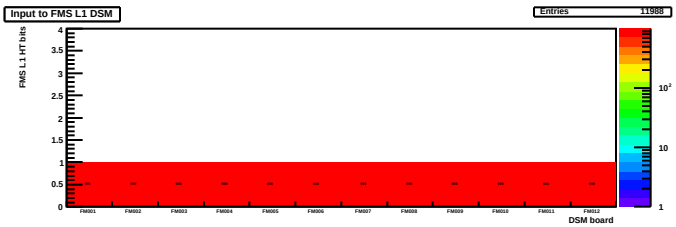

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

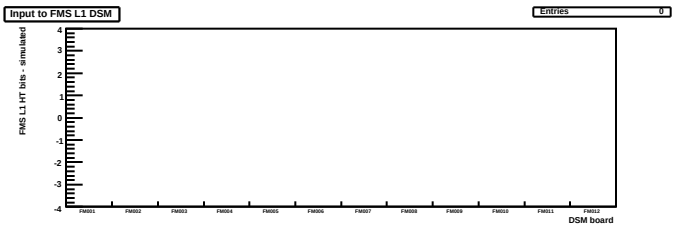

Input to FMS L1 DSM
Entries 11988
sumCD
DSM board

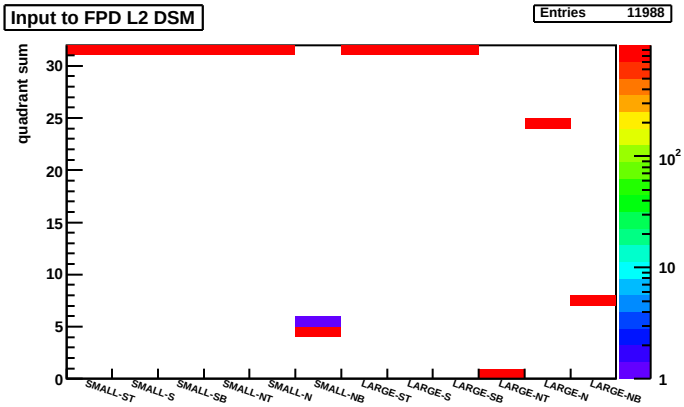

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

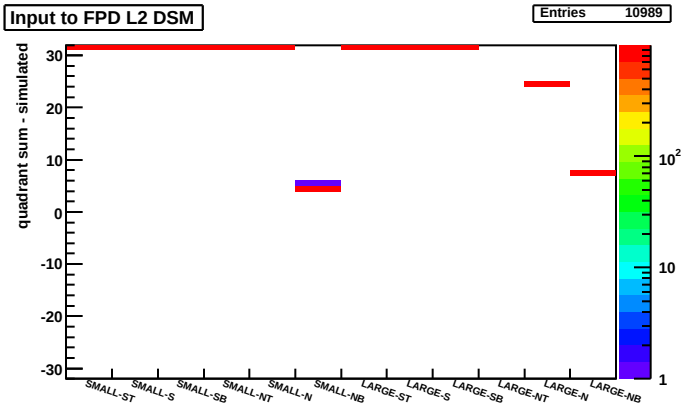

Input to FMS L1 DSM
Entries 11988
sumA
DSM board

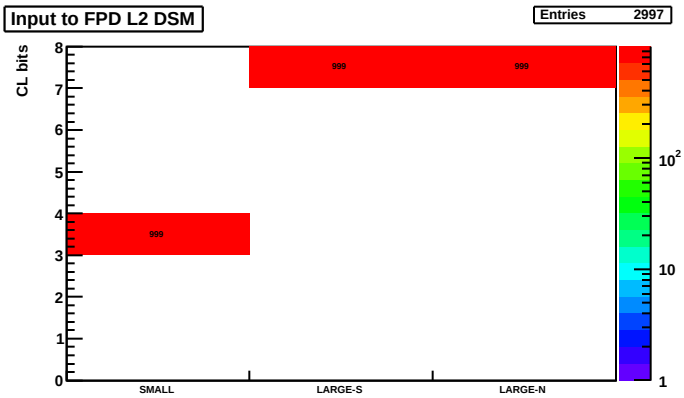

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

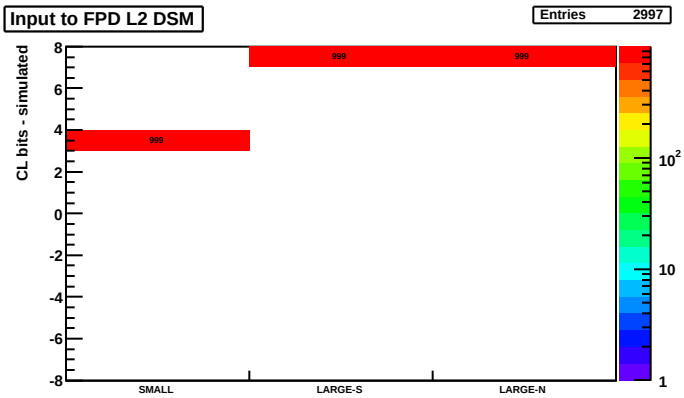

Input to FMS L1 DSM
Entries 11988
FMS L1 HT bits
DSM board

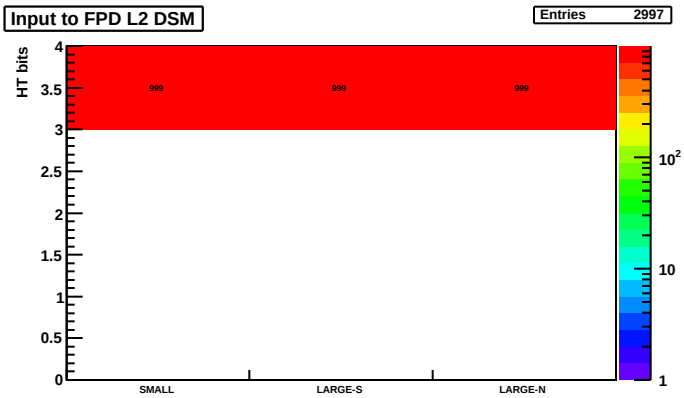

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

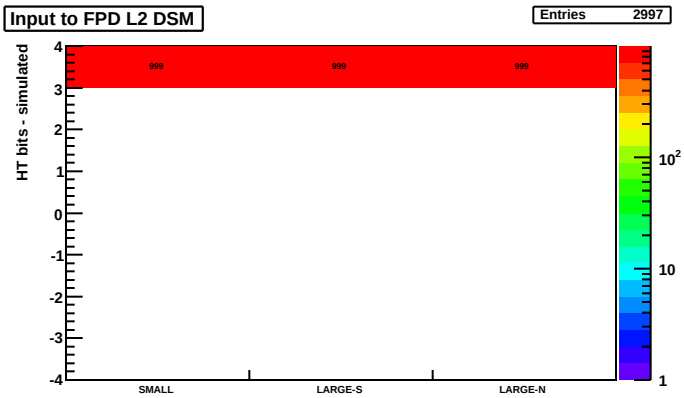

Input to FPD L2 DSM
Entries 11988
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

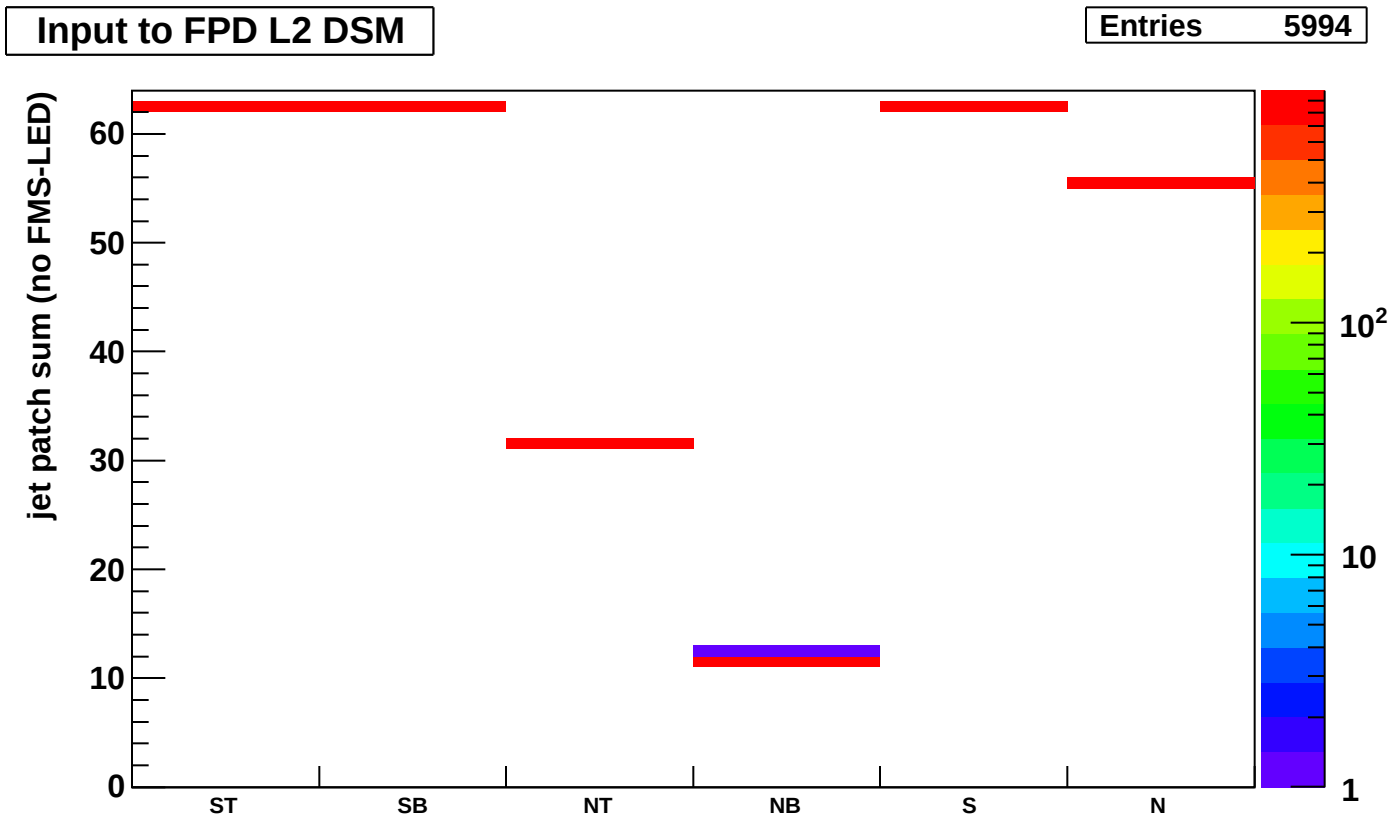

Input to FPD L2 DSM
Entries 10989
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

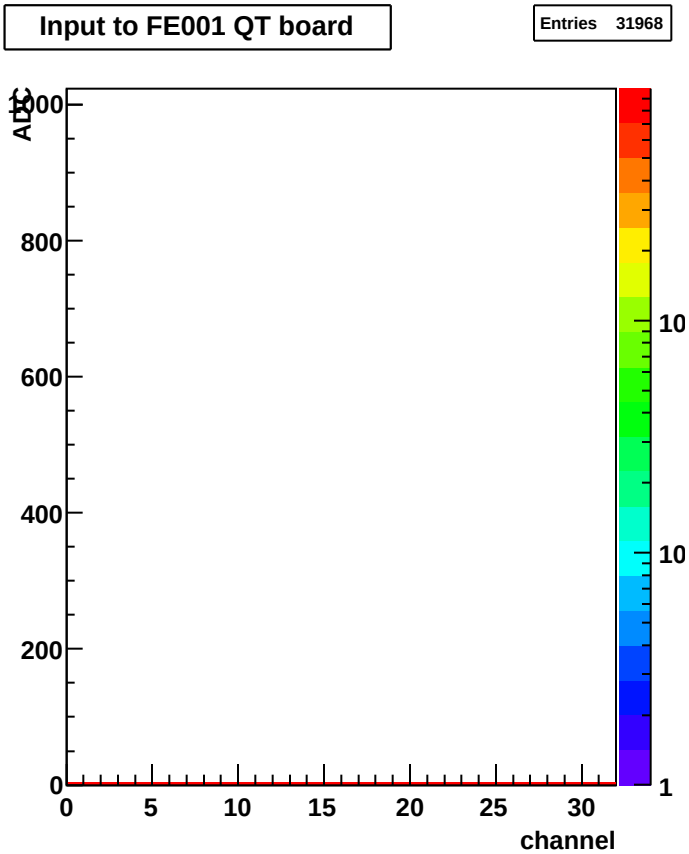

Input to FPD L2 DSM
Entries 2997
CL bits
SMALL
LARGE-S
LARGE-N

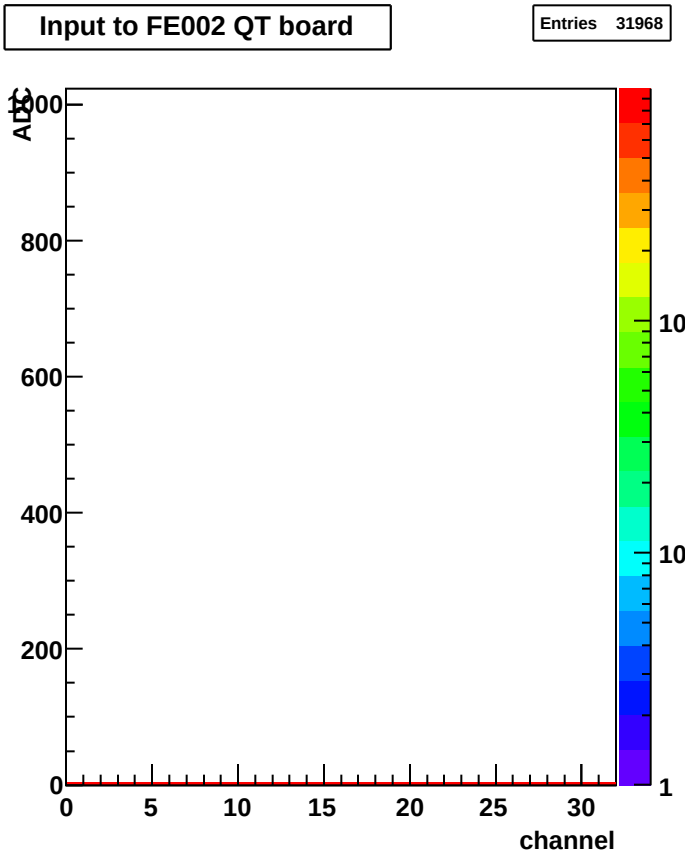

Input to FPD L2 DSM
Entries 2997
CL bits - simulated
SMALL
LARGE-S
LARGE-N

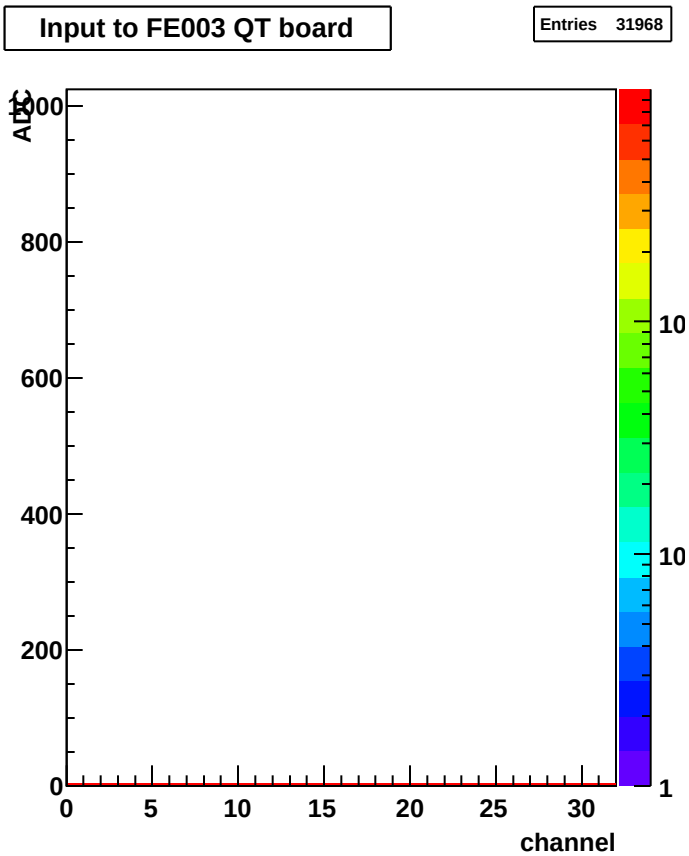

Input to FPD L2 DSM
Entries 2997
HT bits
SMALL
LARGE-S
LARGE-N

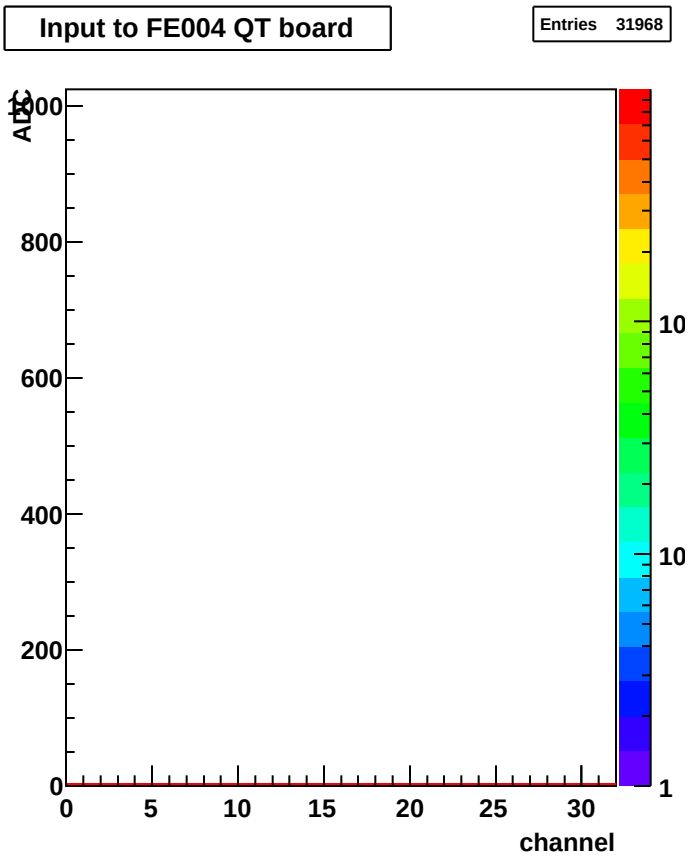

Input to FPD L2 DSM
Entries 2997
HT bits - simulated
SMALL
LARGE-S
LARGE-N

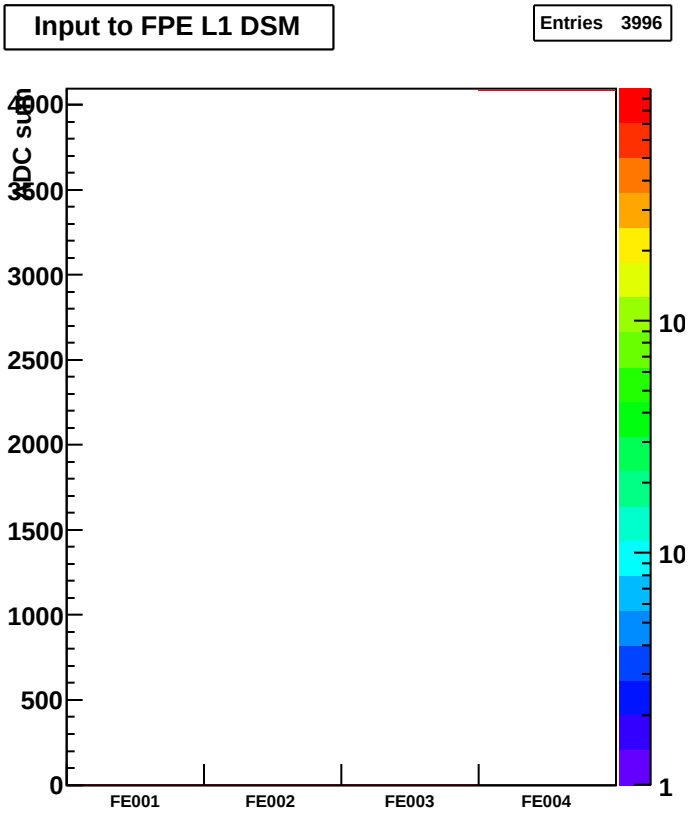

Input to FPD L2 DSM
Entries 5994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2

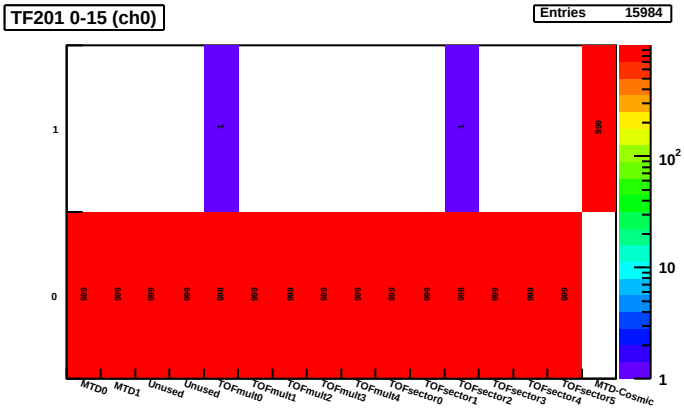

Input to FE001 QT board
Entries 31968
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
1


Input to FE002 QT board
Entries 31968
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
1


Input to FE003 QT board
Entries 31968
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
1


Input to FE004 QT board
Entries 31968
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
1


Input to FPE L1 DSM
Entries 3996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
1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Entries 15984
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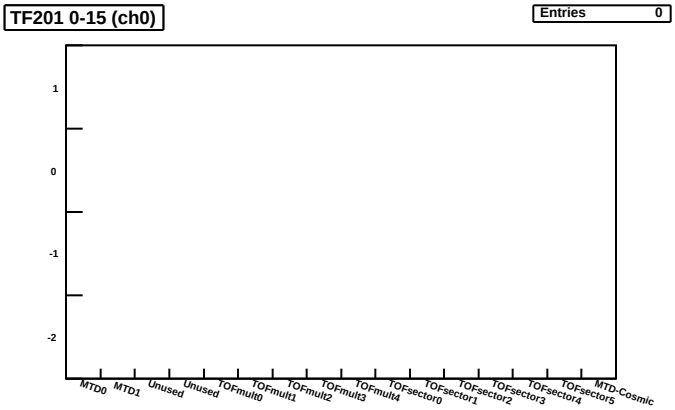
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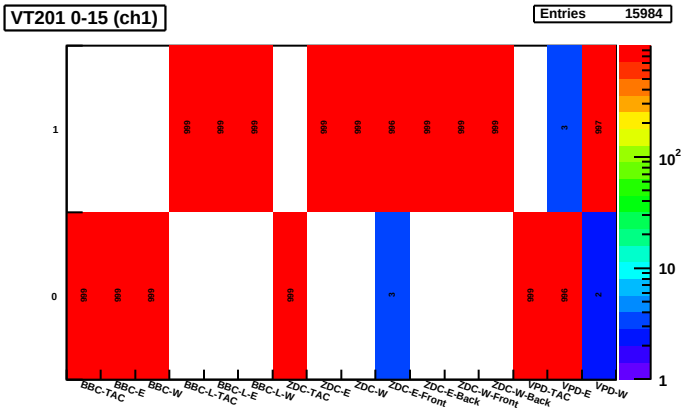
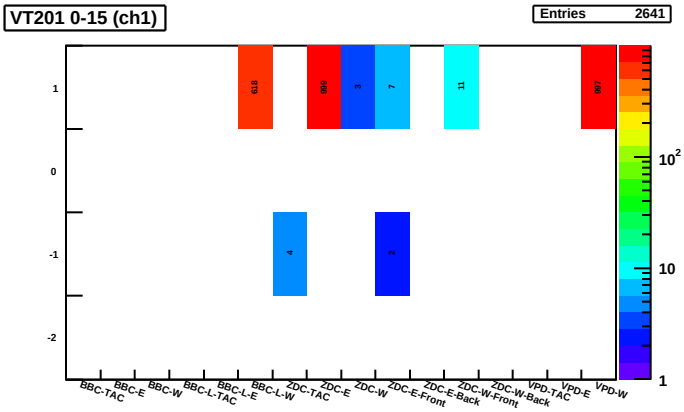

VT201 0-15 (ch1)
Entries 15984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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Entries 2641
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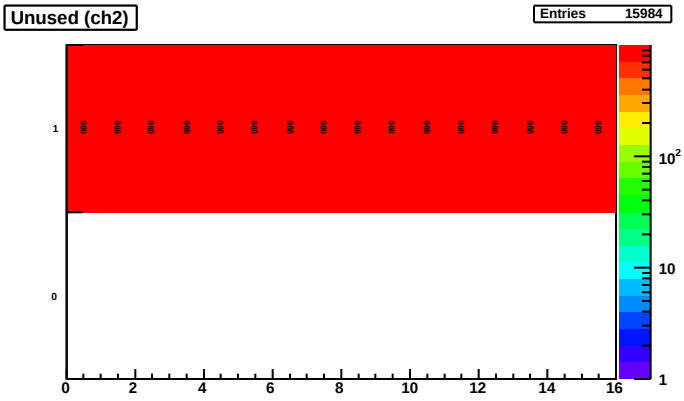
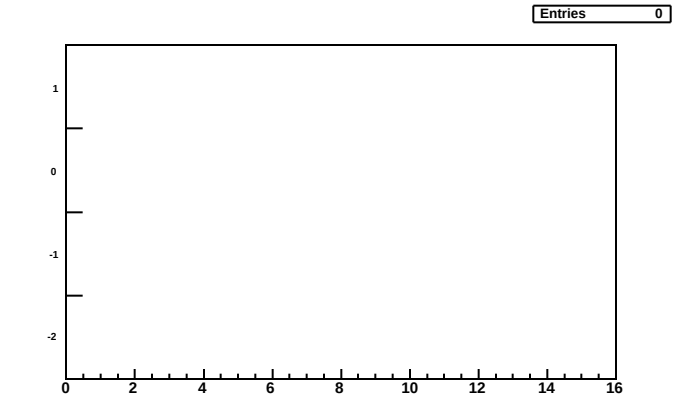

Unused (ch2)
Entries 15984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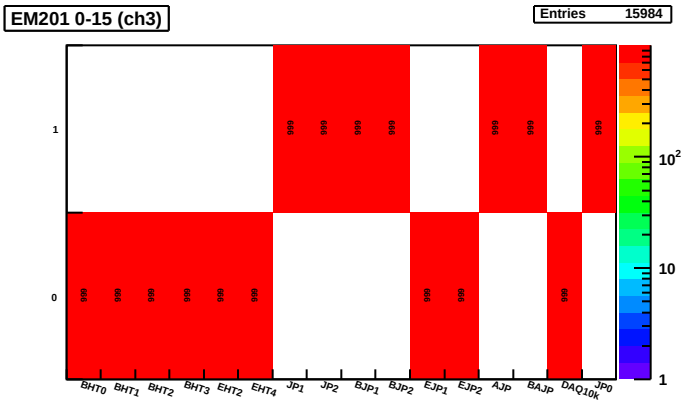
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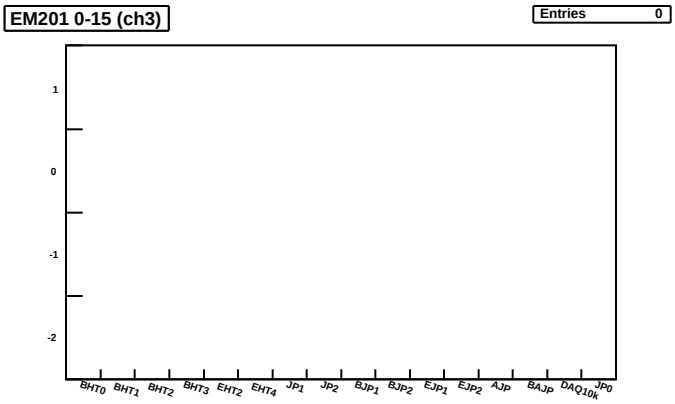
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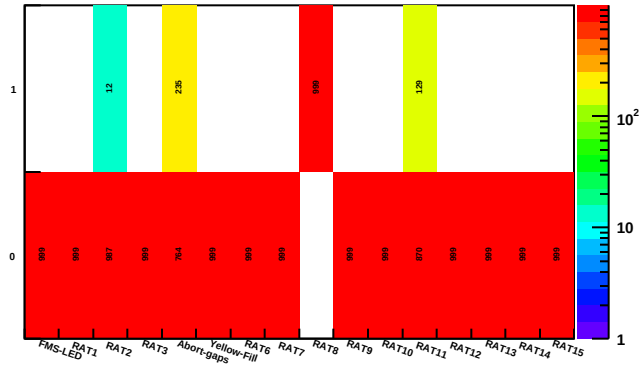
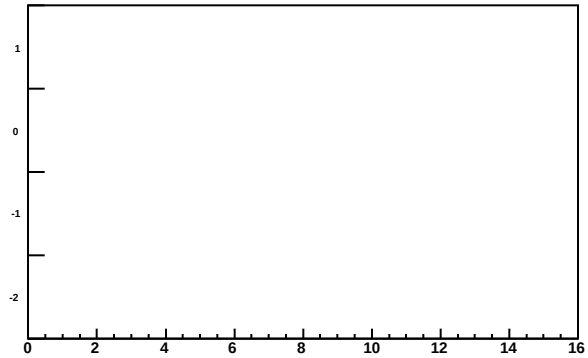
RAT board (ch4)





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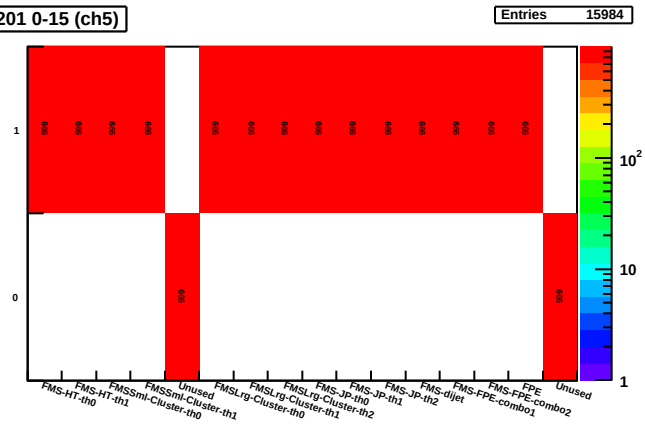

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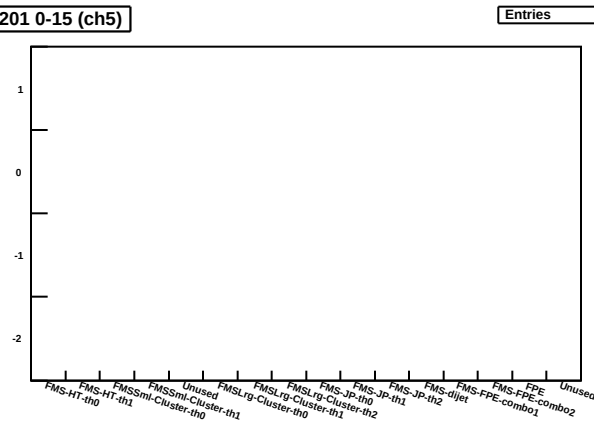
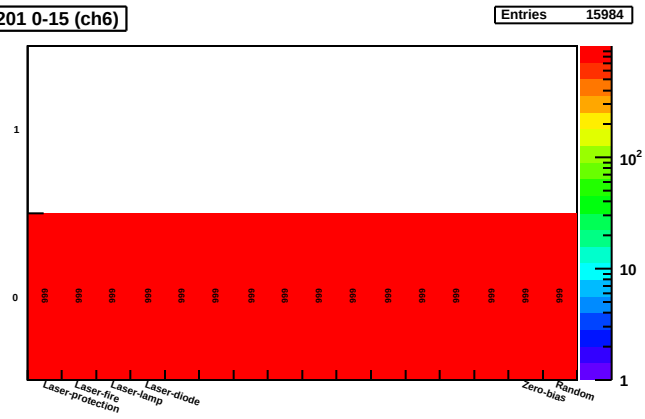
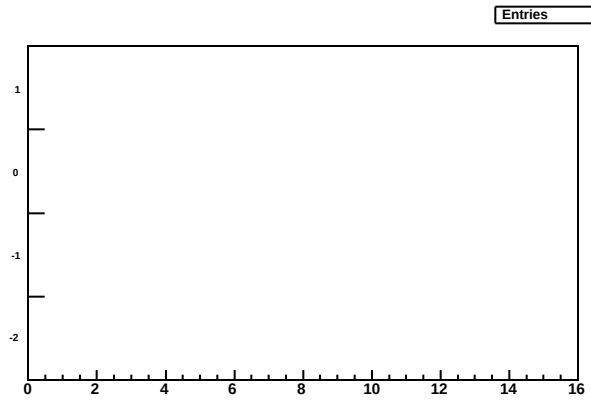
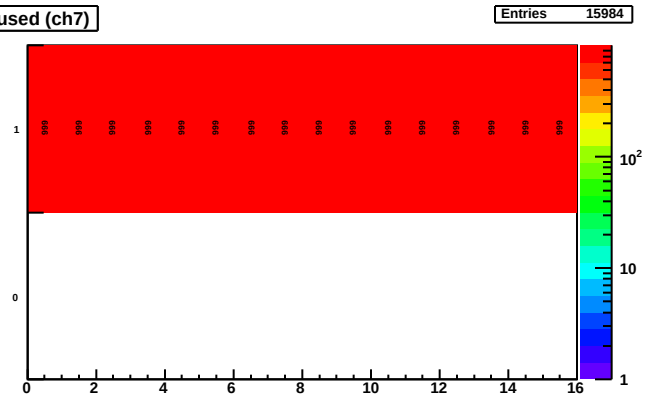
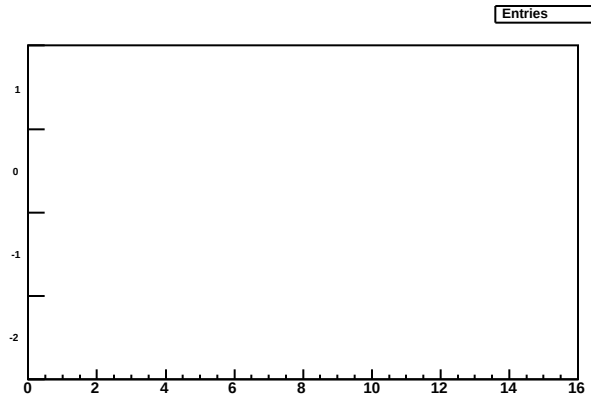


ST201 0-15 (ch6)





Unused (ch7)