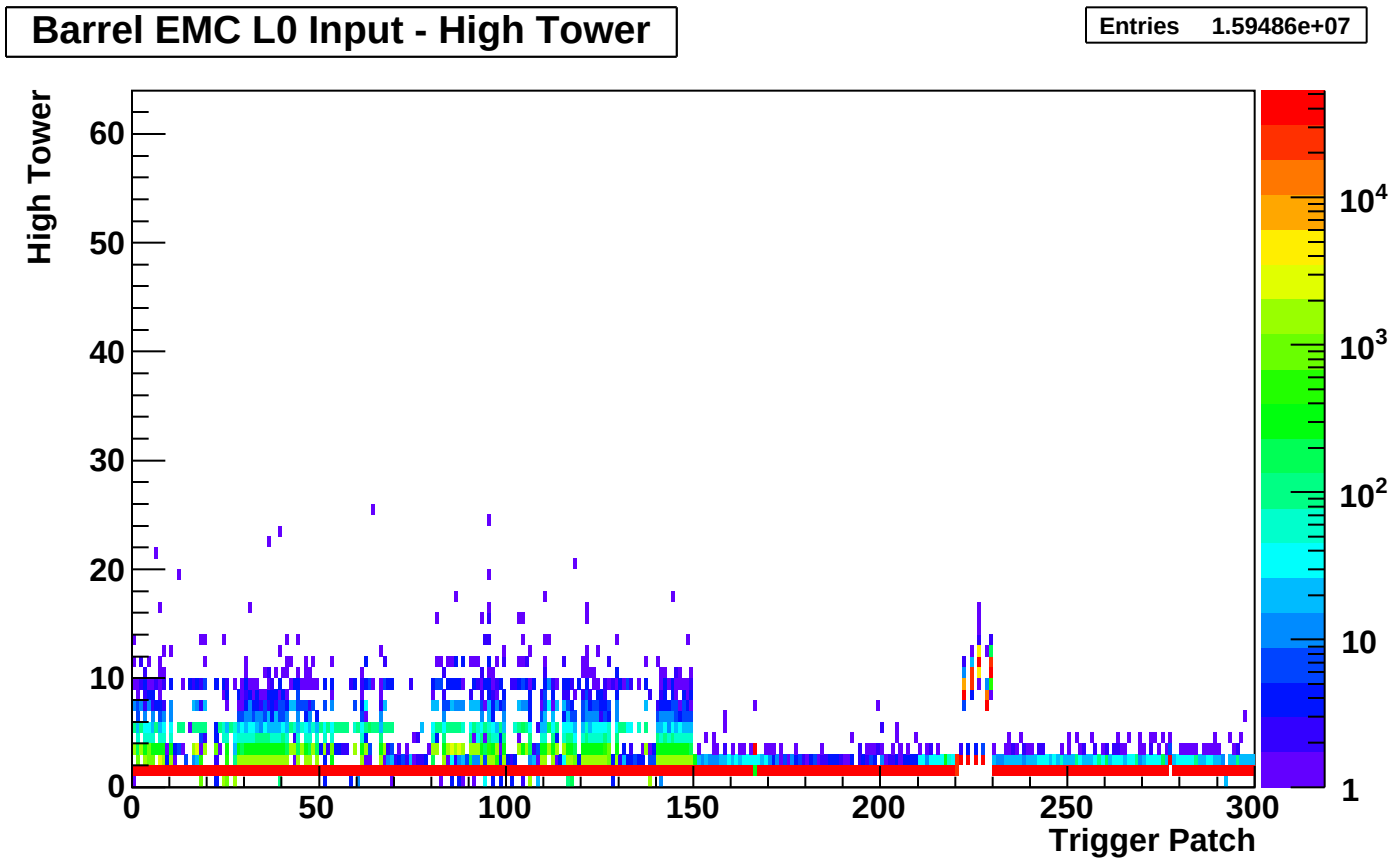
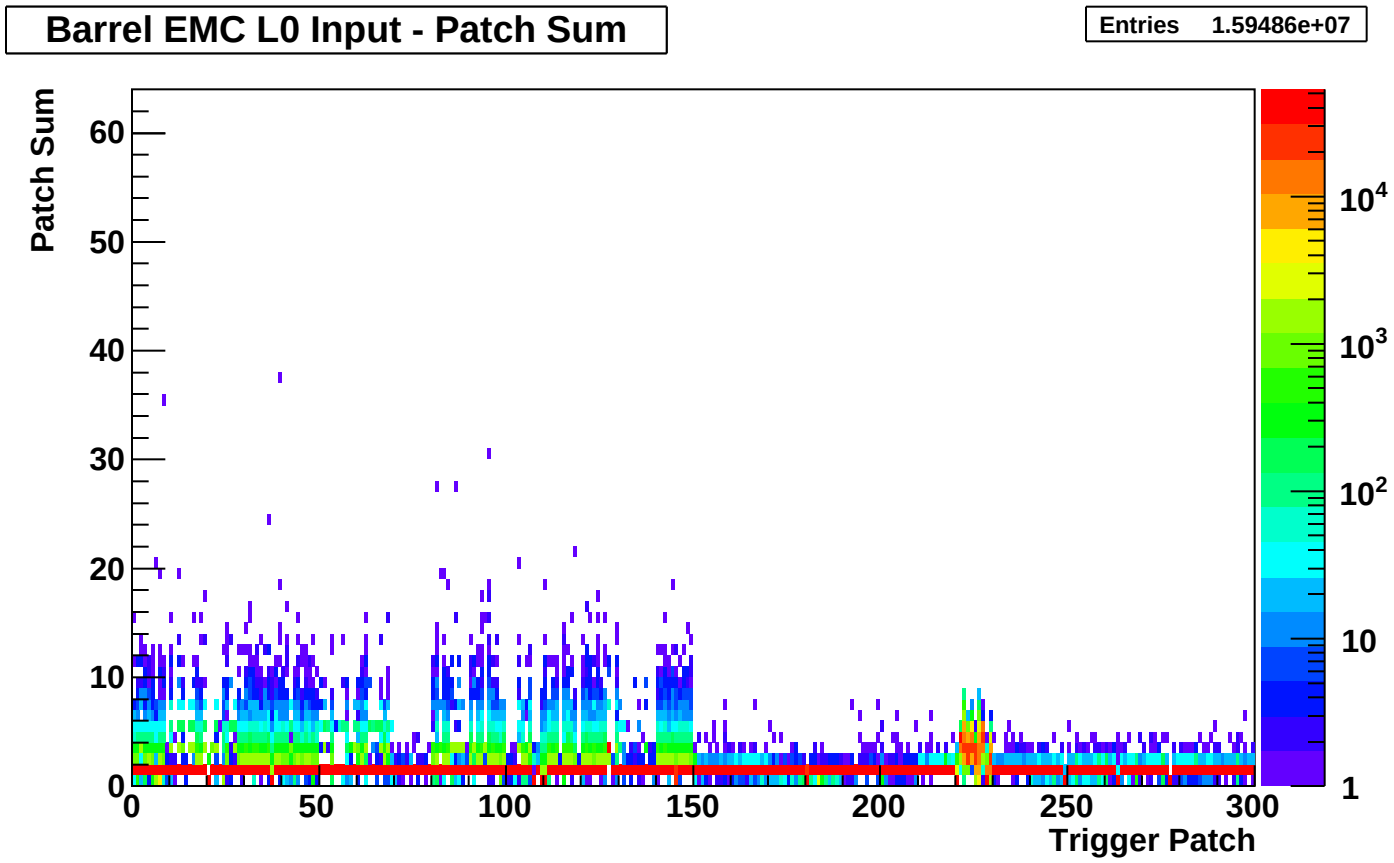
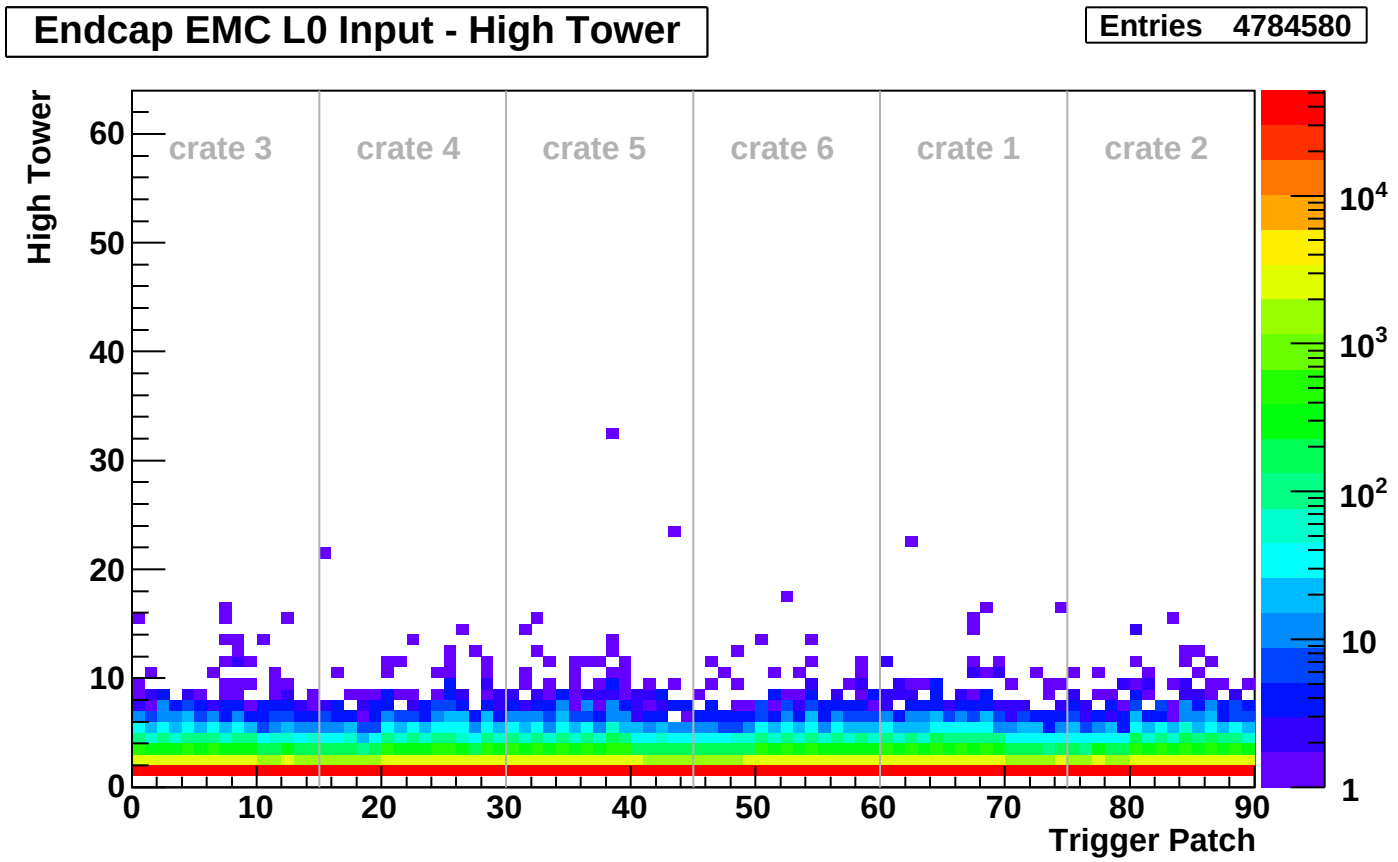
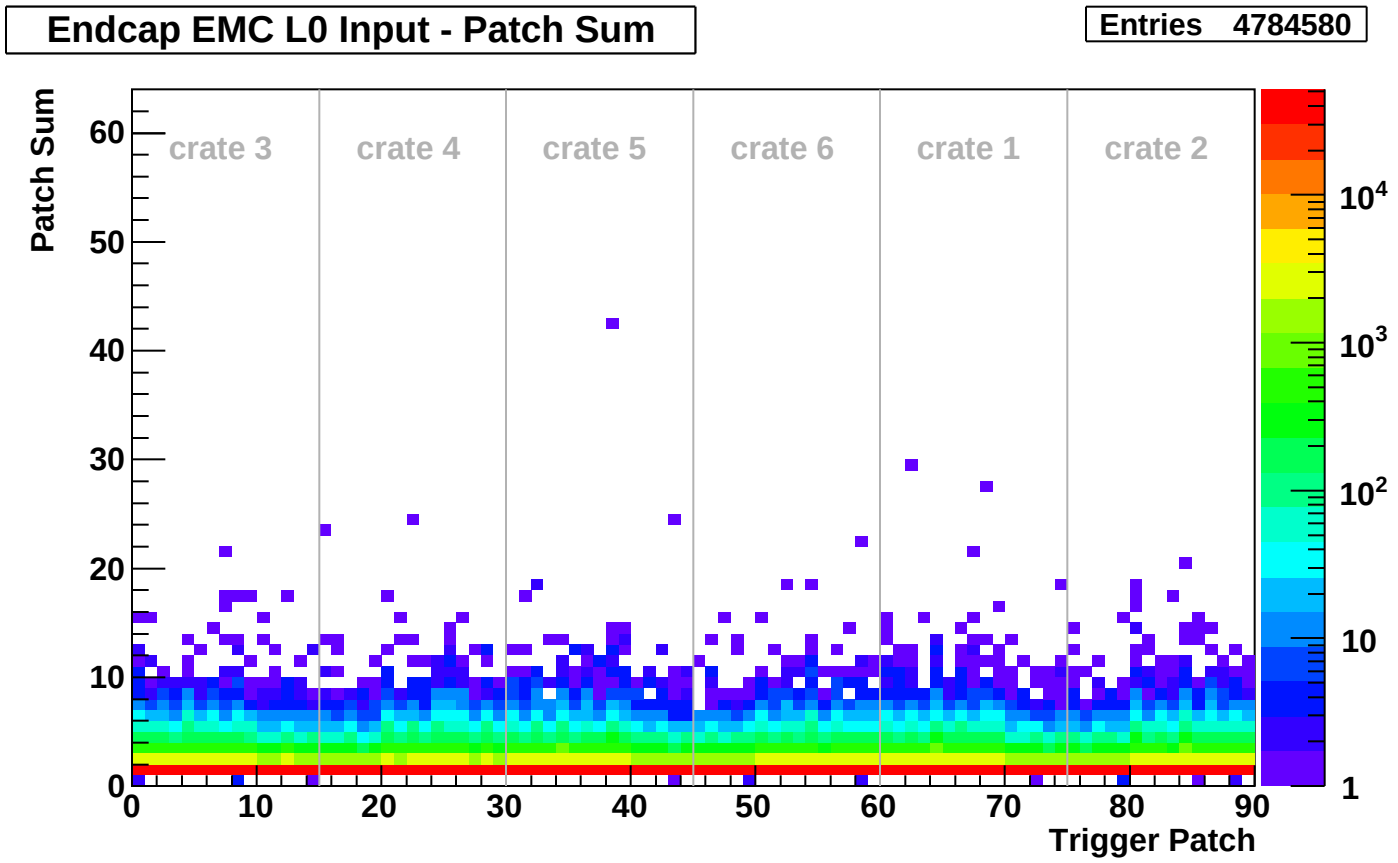
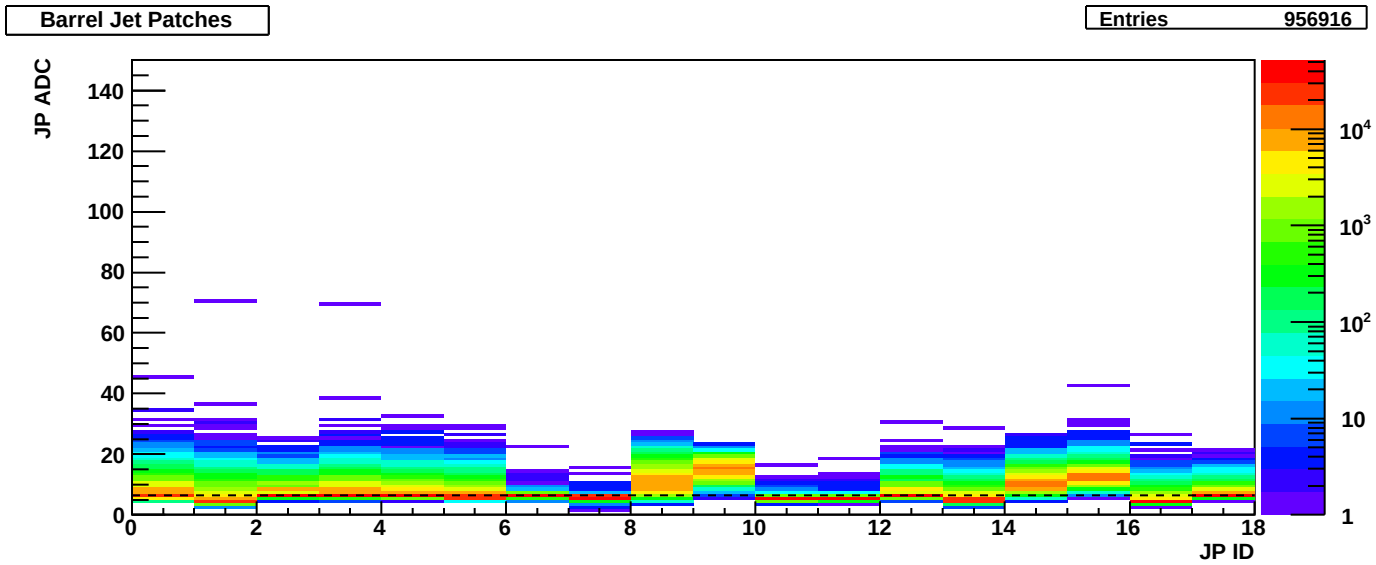
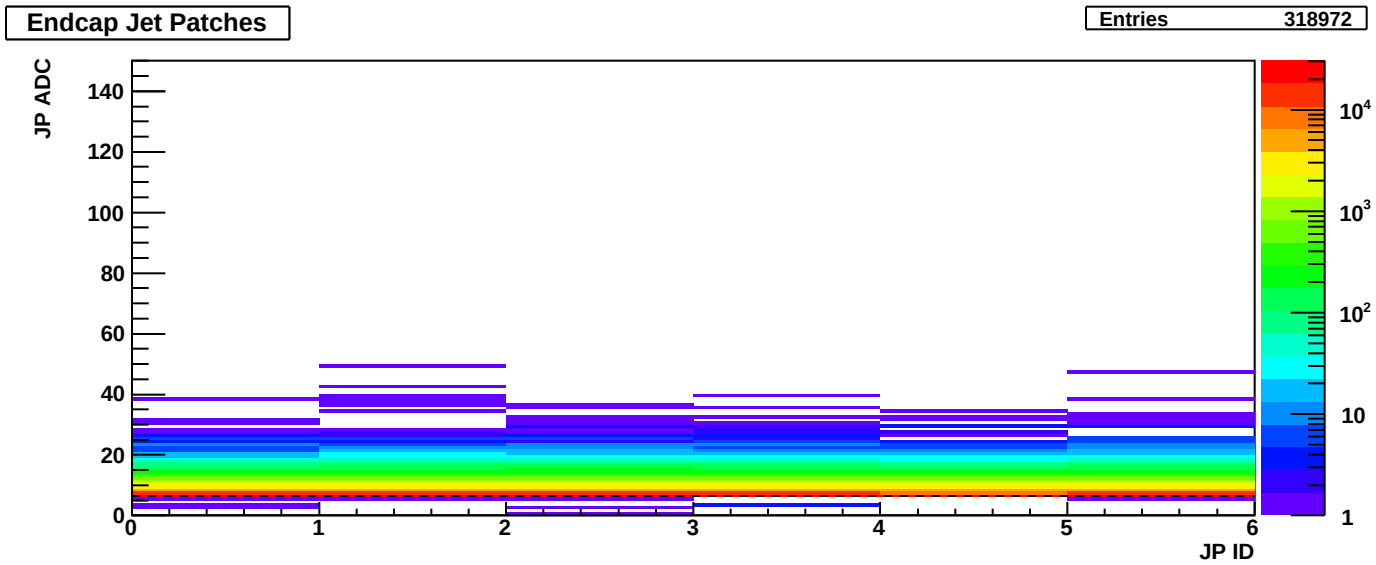

Barrel EMC L0 Input - High Tower
Entries 1.59486e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

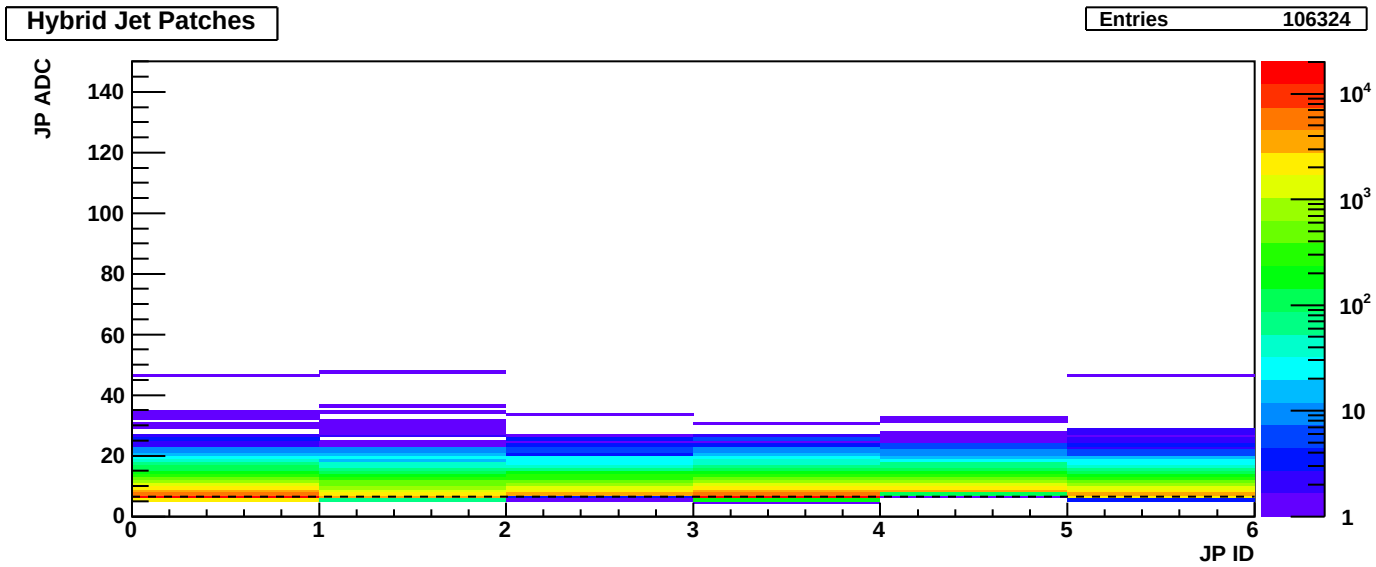

Barrel EMC L0 Input - Patch Sum
Entries 1.59486e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

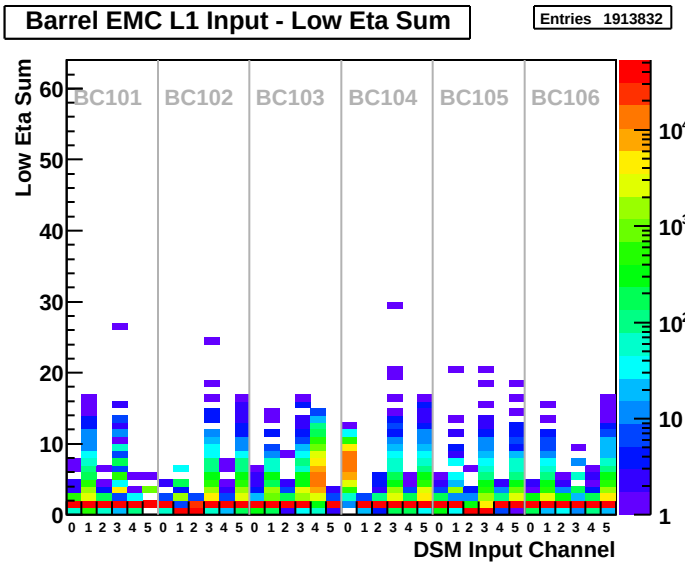

Endcap EMC L0 Input - High Tower
Entries 4784580
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

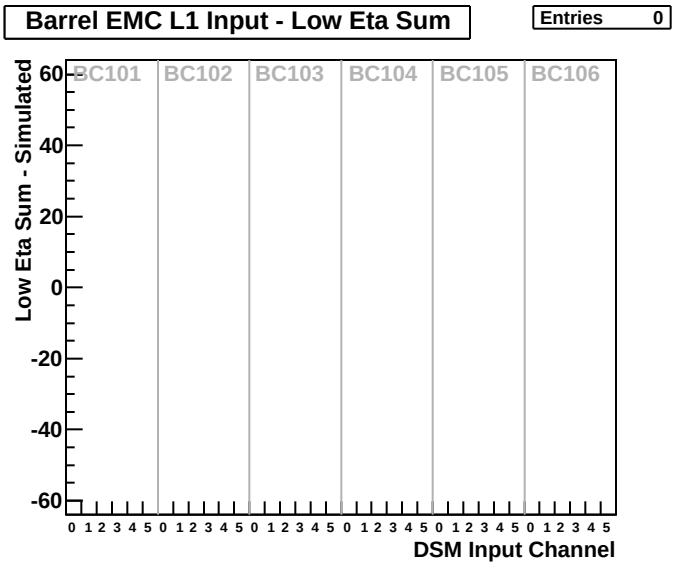

Endcap EMC L0 Input - Patch Sum
Entries 4784580
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

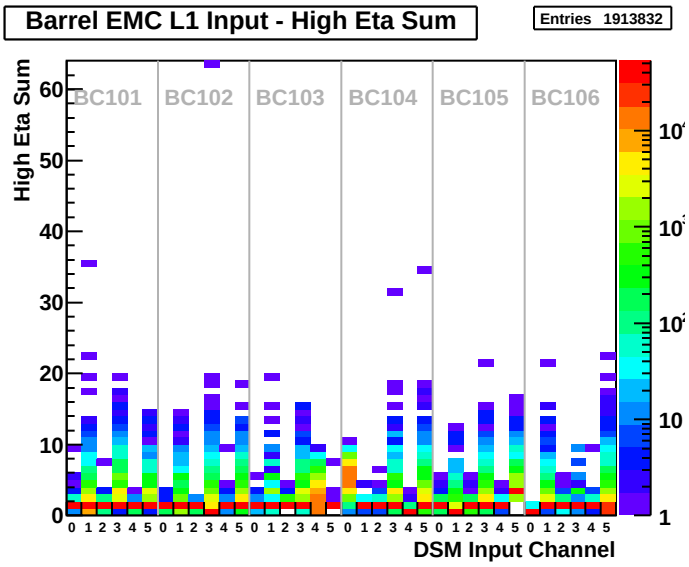

Barrel Jet Patches
Entries 956916
JP ADC
JP ID

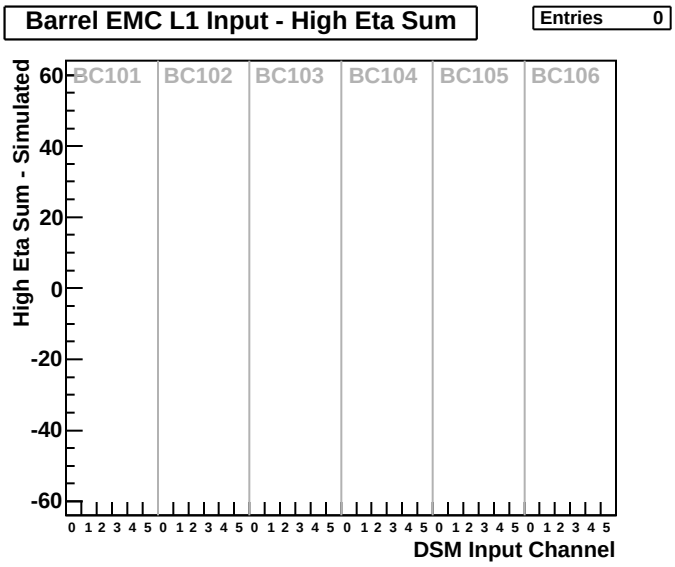

Endcap Jet Patches
Entries 318972
JP ADC
JP ID

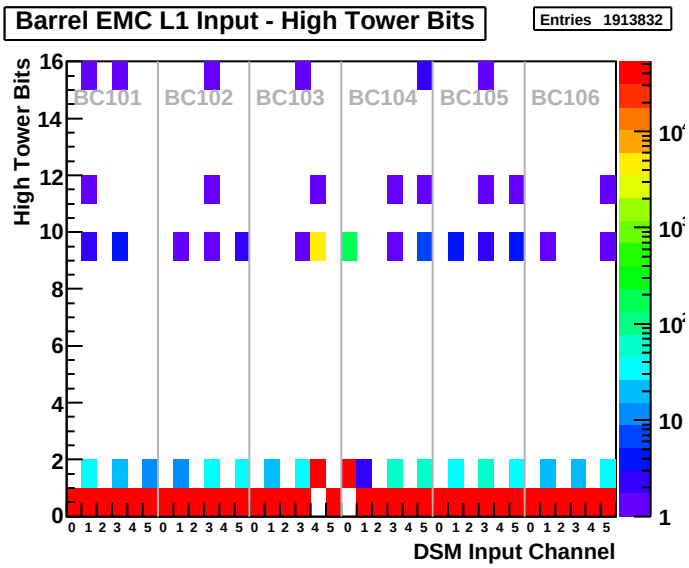

Hybrid Jet Patches
Entries 106324
JP ADC
JP ID

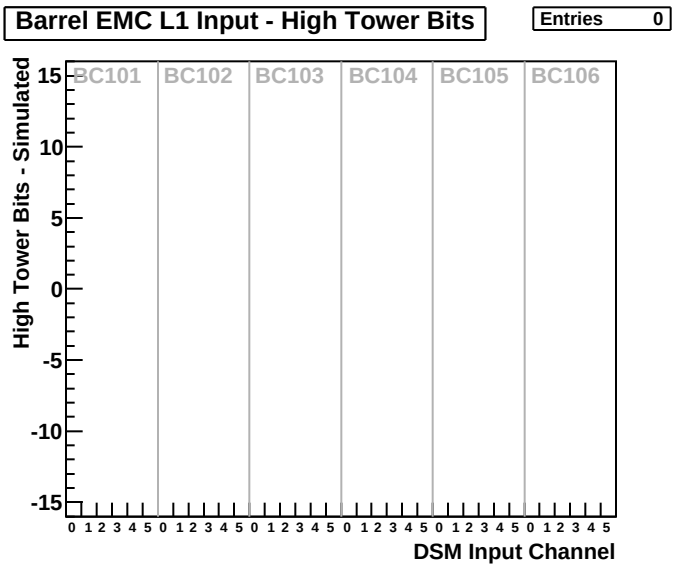

Barrel EMC L1 Input - Low Eta Sum
Entries 1913832
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

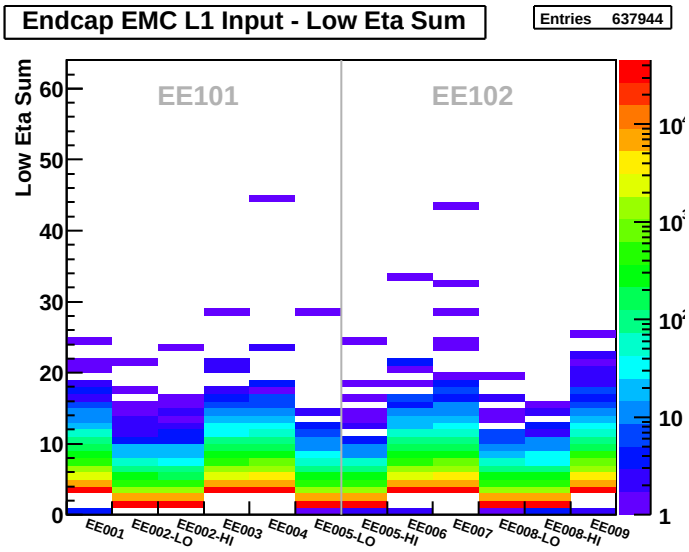

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

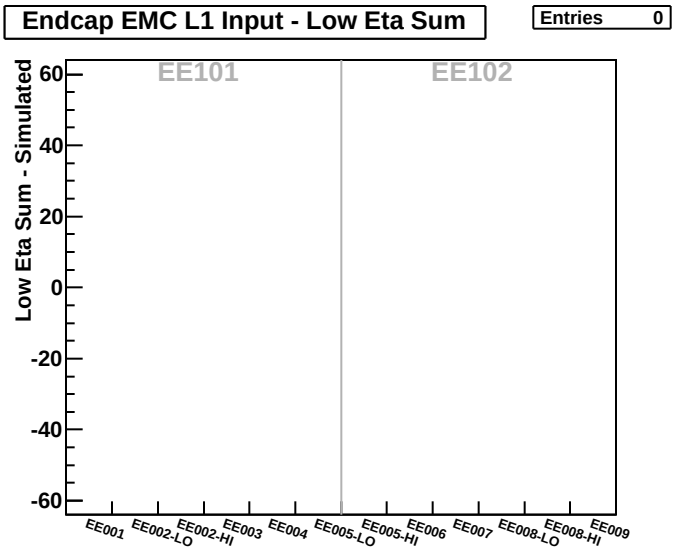

Barrel EMC L1 Input - High Eta Sum
Entries 1913832
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

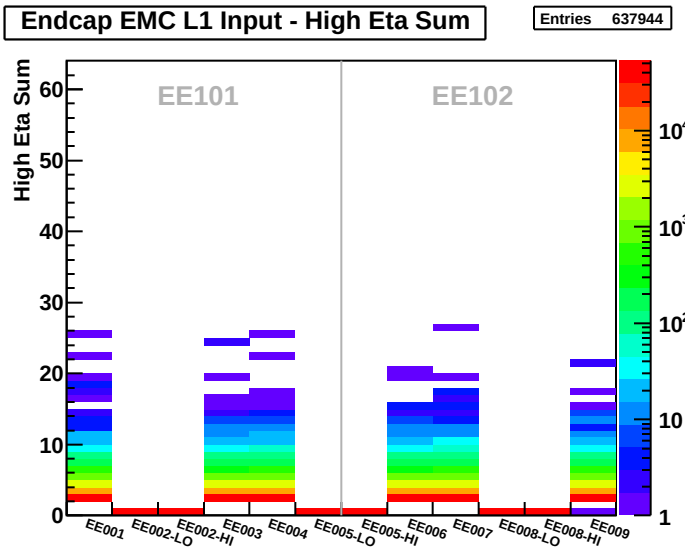

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

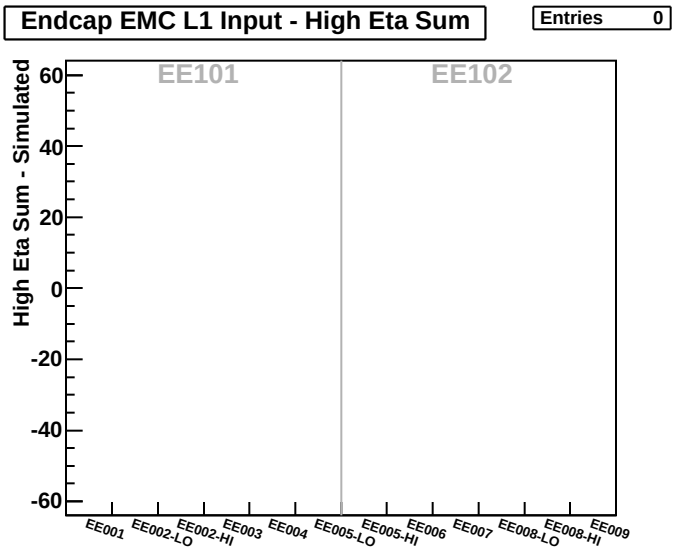

Barrel EMC L1 Input - High Tower Bits
Entries 1913832
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

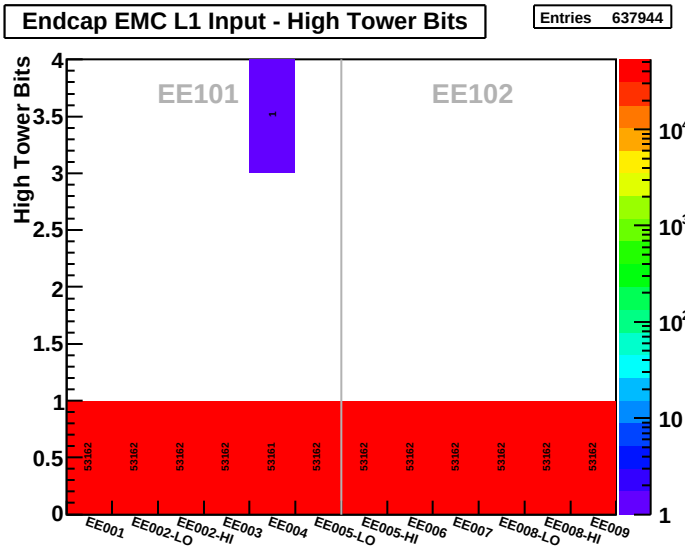

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

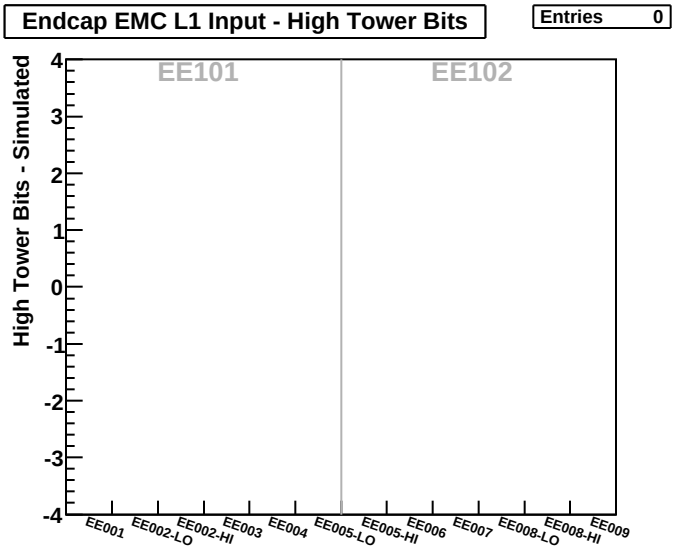

Endcap EMC L1 Input - Low Eta Sum
Entries 637944
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

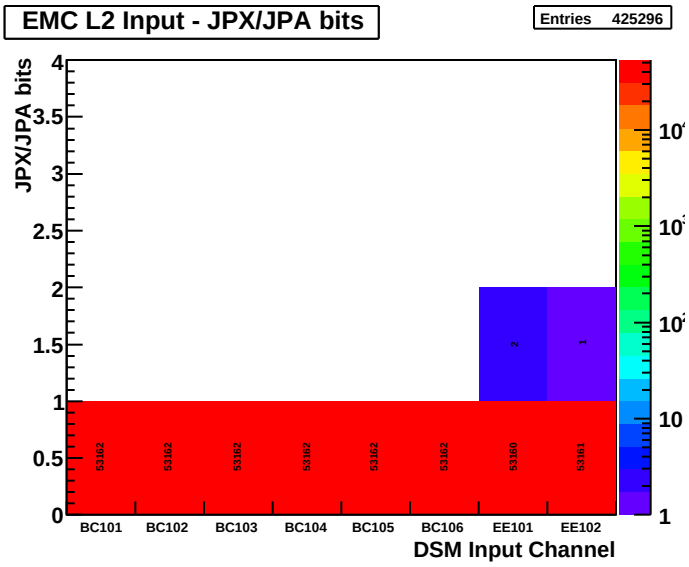

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

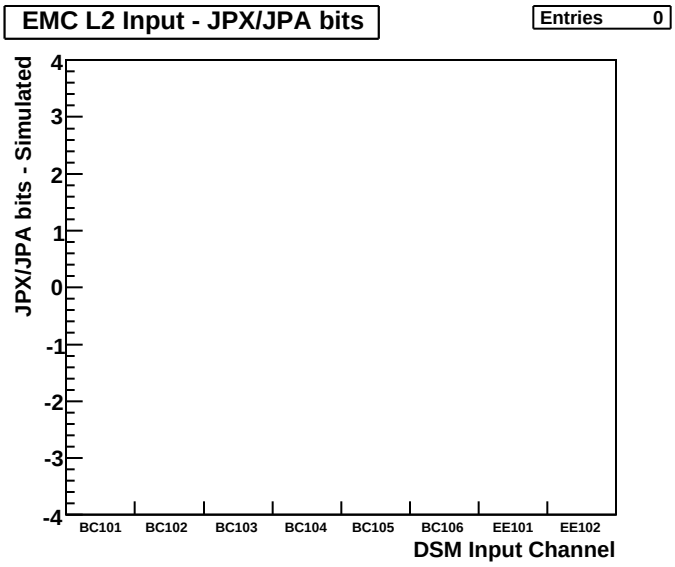

Endcap EMC L1 Input - High Eta Sum
Entries 637944
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

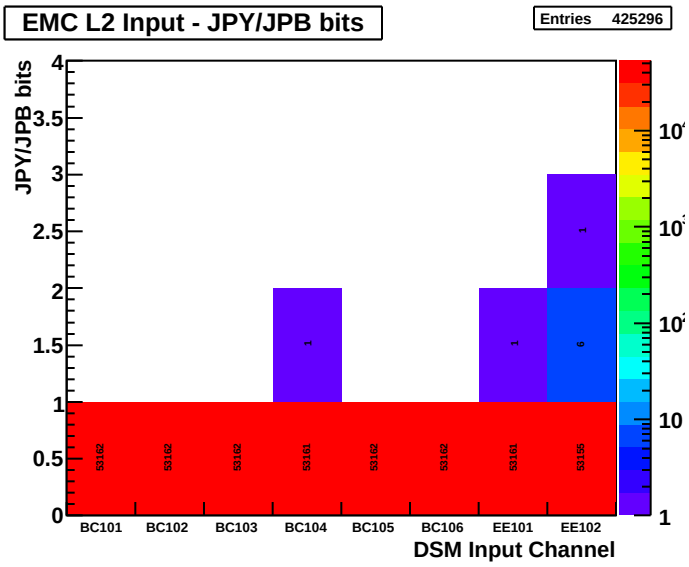

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

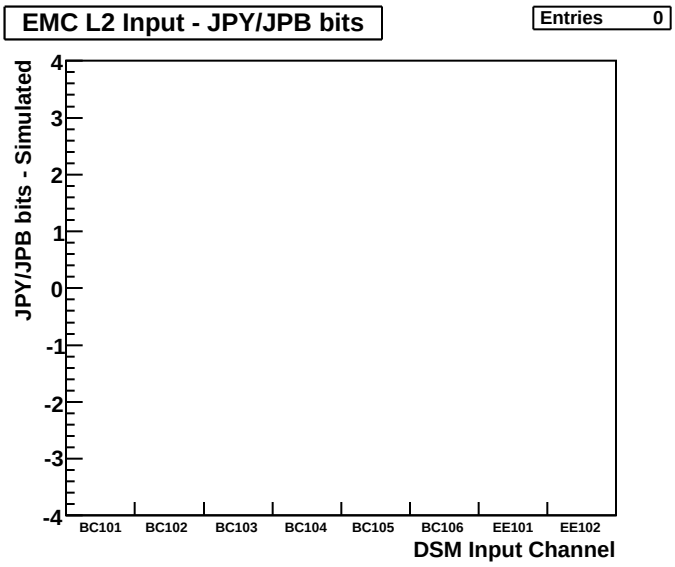

Endcap EMC L1 Input - High Tower Bits
Entries 637944
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

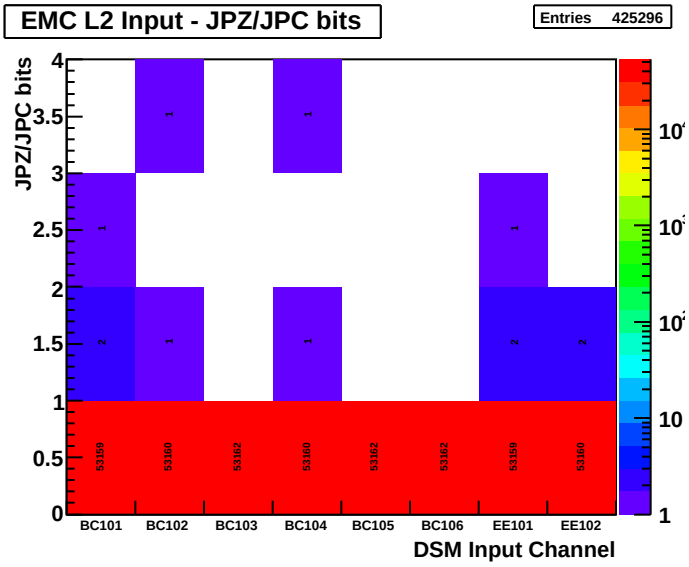

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

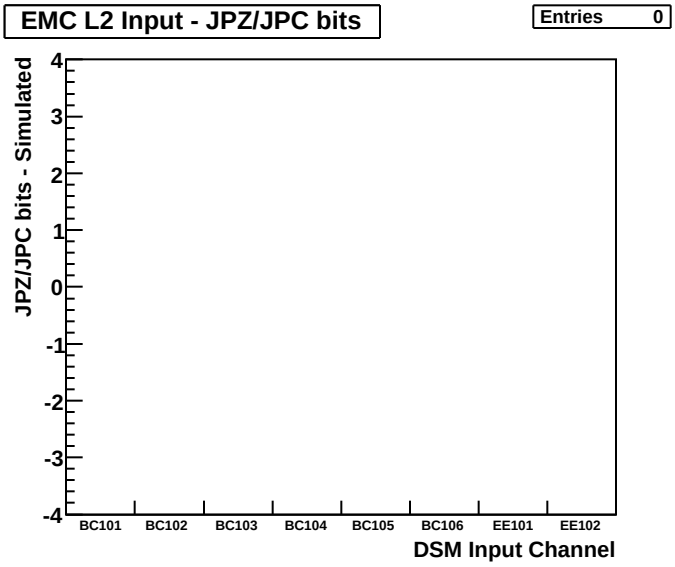

EMC L2 Input - JPX/JPA bits
Entries 425296
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

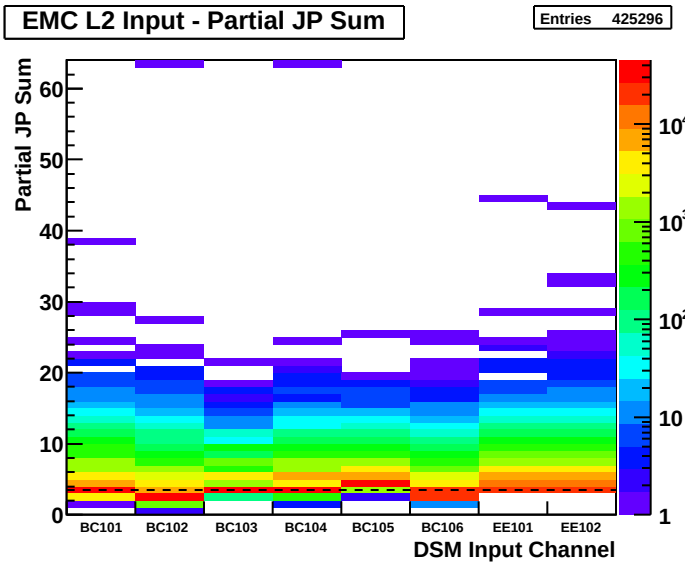

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

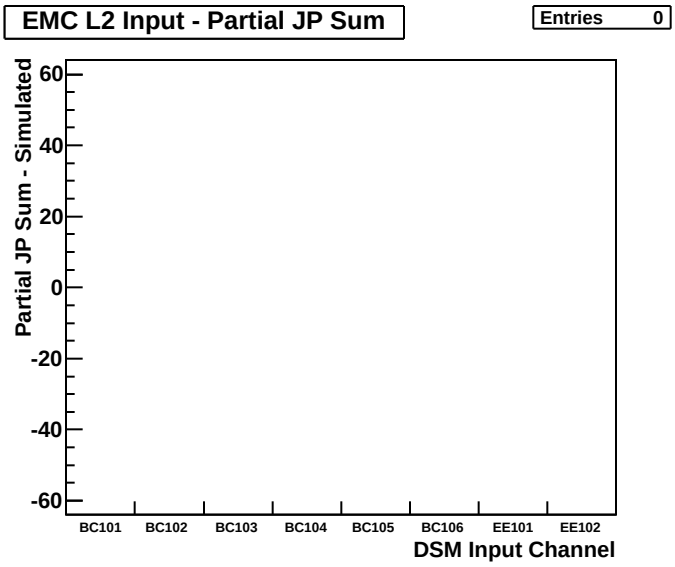

EMC L2 Input - JPY/JPB bits
Entries 425296
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

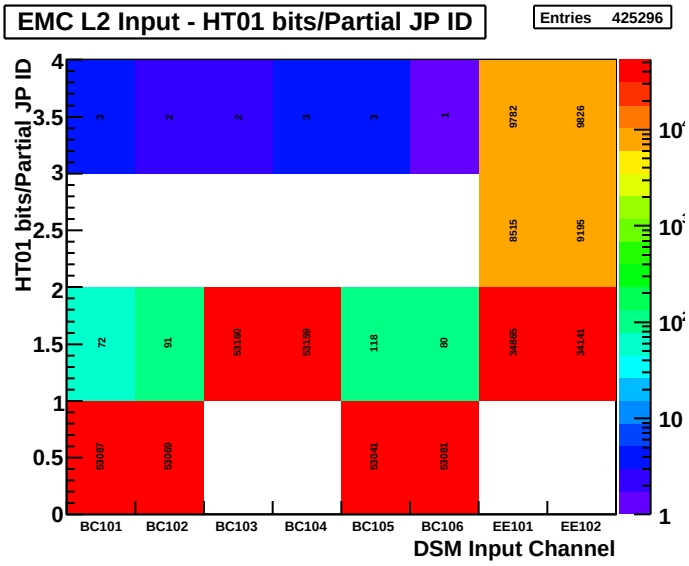

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

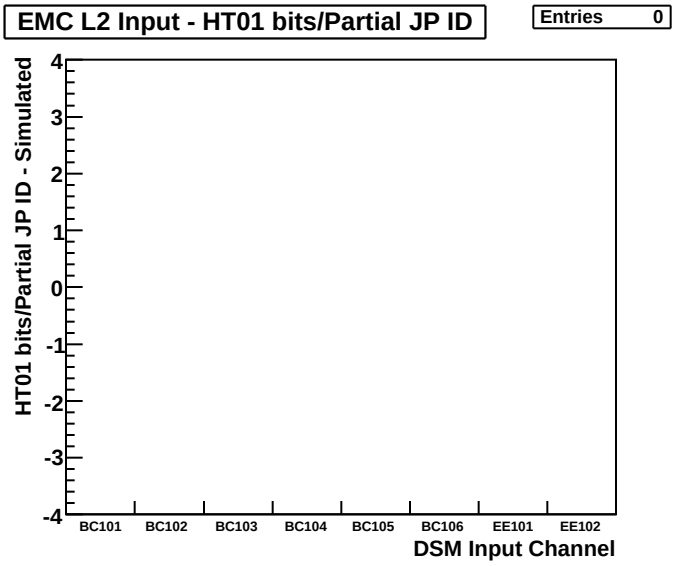

EMC L2 Input - JPZ/JPC bits
Entries 425296
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

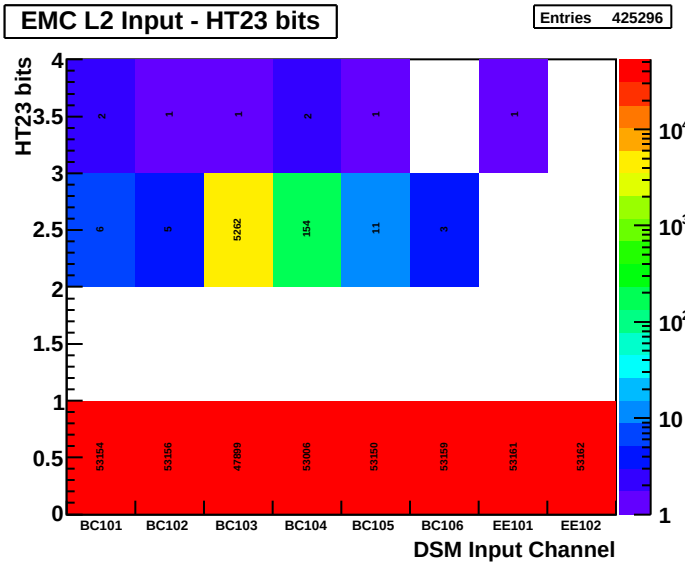

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

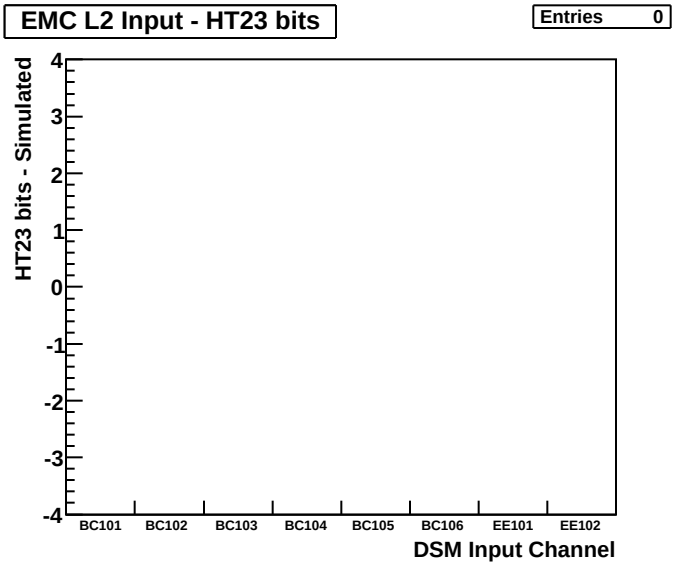

EMC L2 Input - Partial JP Sum
Entries 425296
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

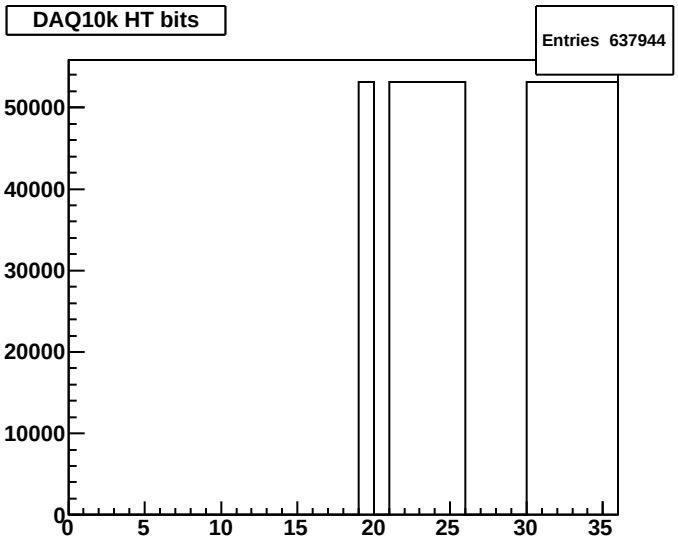

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

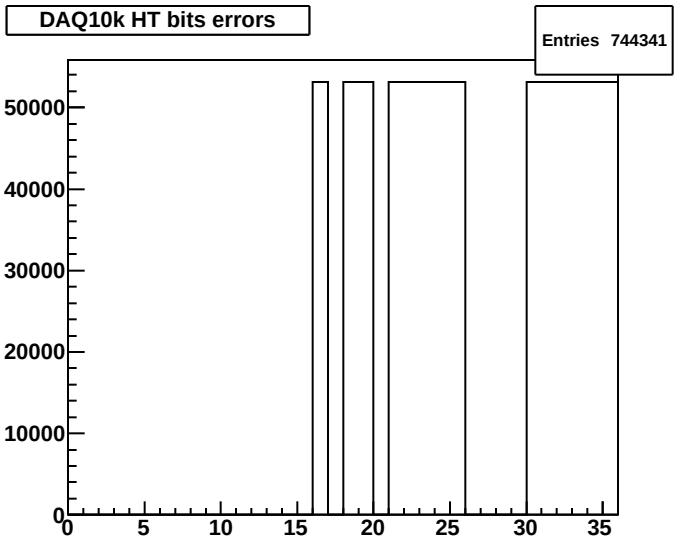

EMC L2 Input - HT01 bits/Partial JP ID
Entries 425296
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

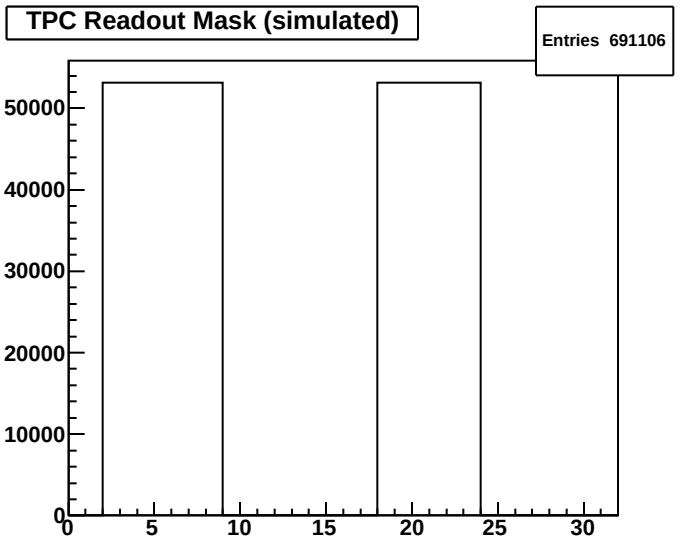

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

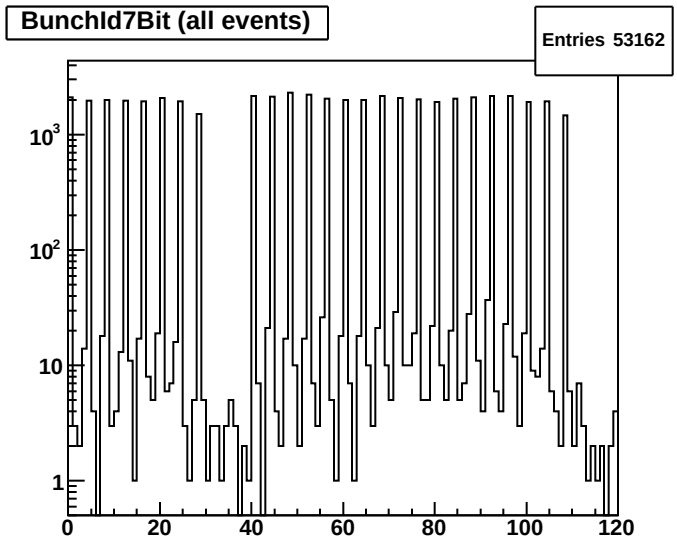

EMC L2 Input - HT23 bits
Entries 425296
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

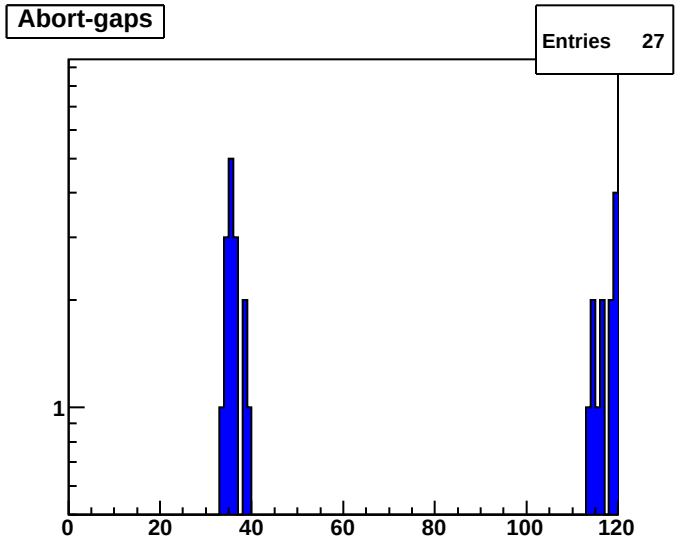

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

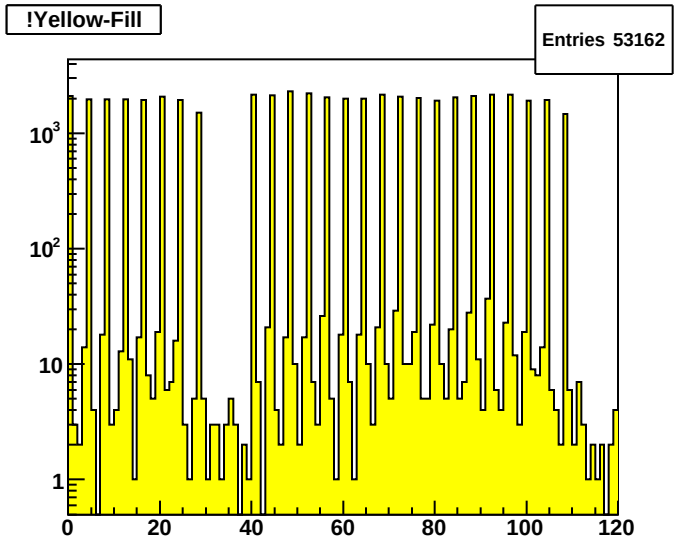

DAQ10k HT bits
Entries 637944
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

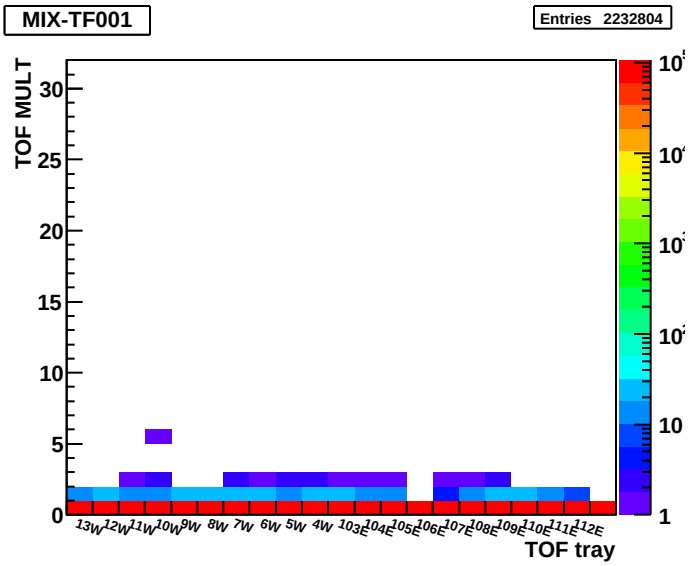

DAQ10k HT bits errors
Entries 744341
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

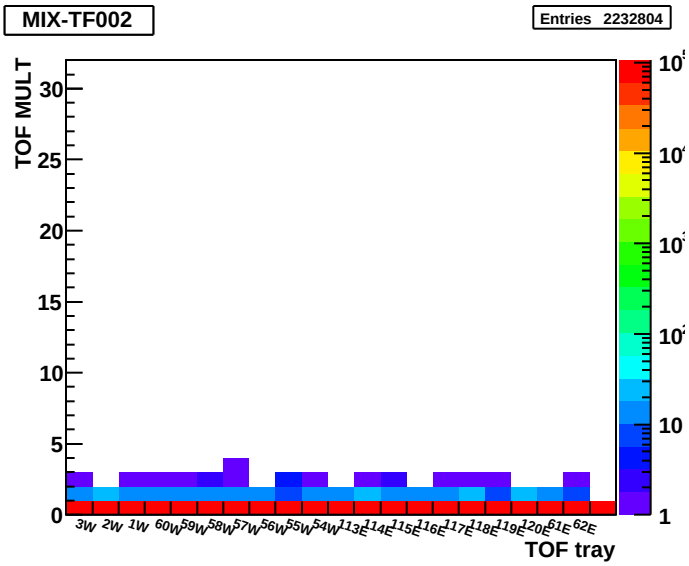

TPC Readout Mask (simulated)
Entries 691106
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

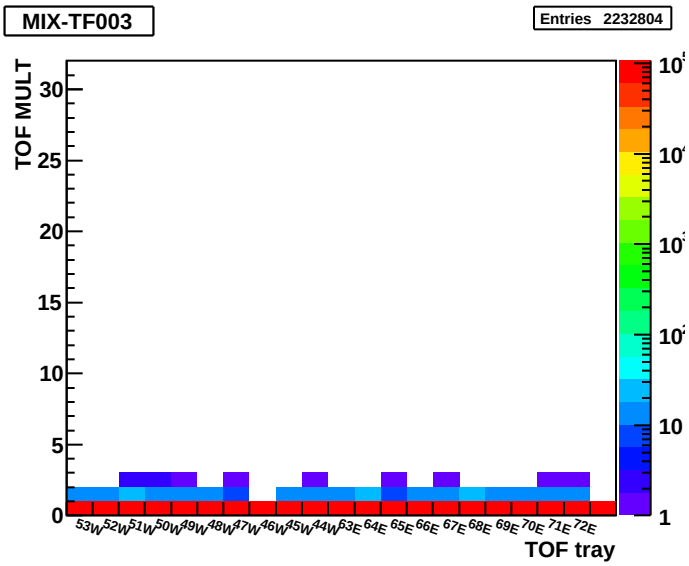

BunchId7Bit (all events)
Entries 53162
10^3
10^2
10
1
0 20 40 60 80 100 120

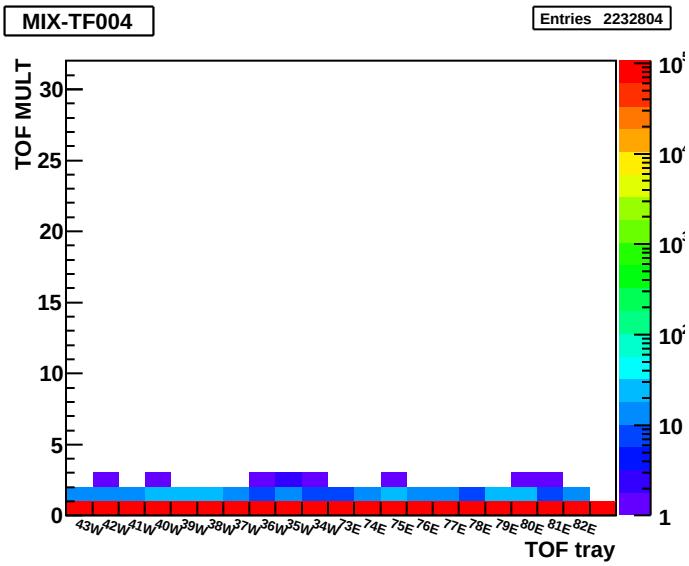

Abort-gaps
Entries 27
1
0 20 40 60 80 100 120

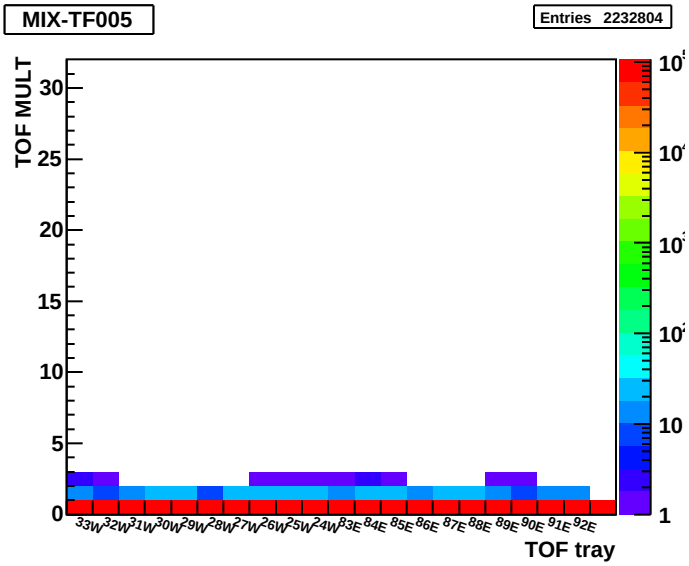

!Yellow-Fill
Entries 53162
10^3
10^2
10
1
0 20 40 60 80 100 120

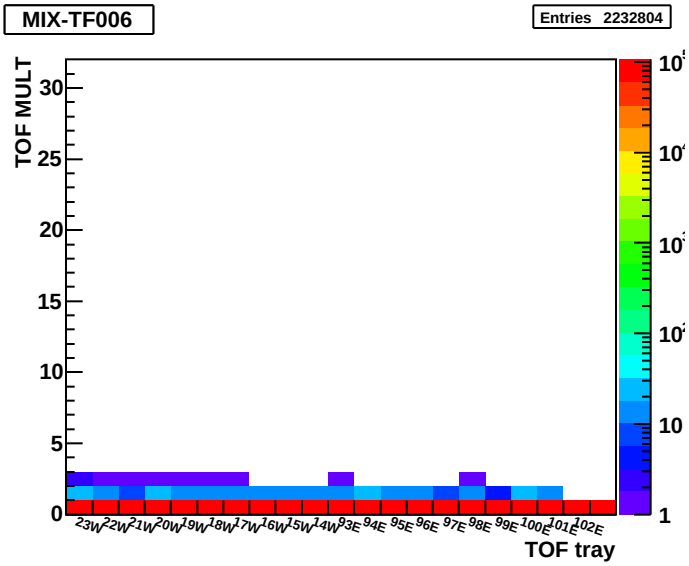

MIX-TF001
Entries 2232804
TOF MULT
TOF tray

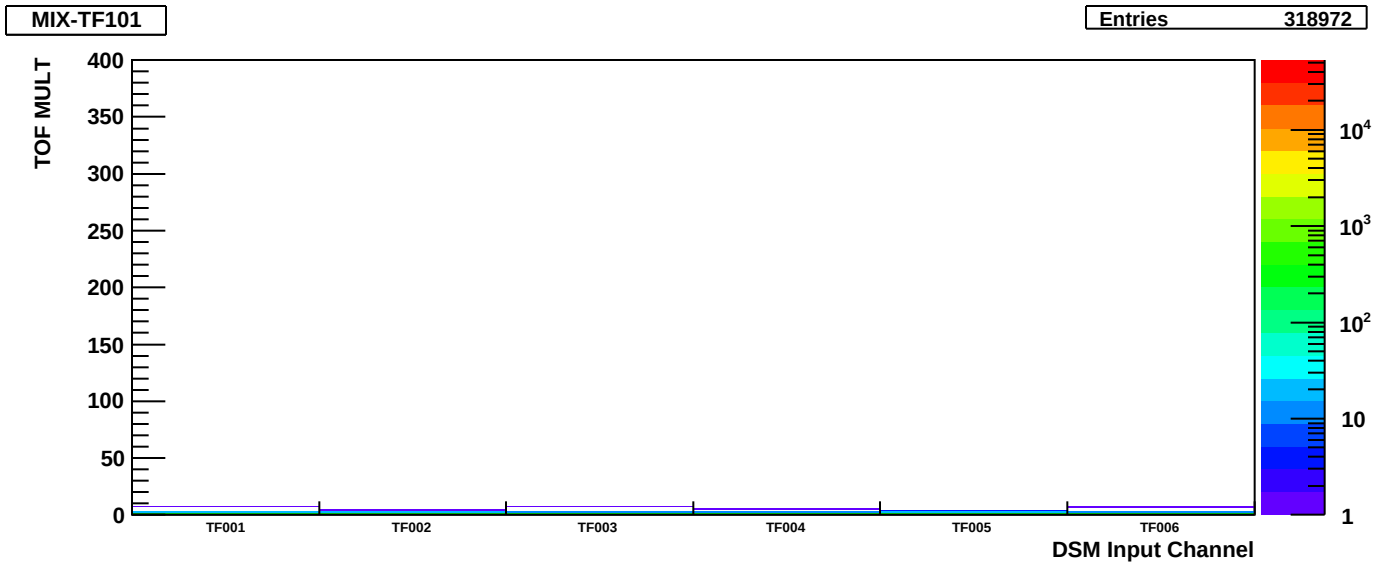

MIX-TF002
Entries 2232804
TOF MULT
TOF tray

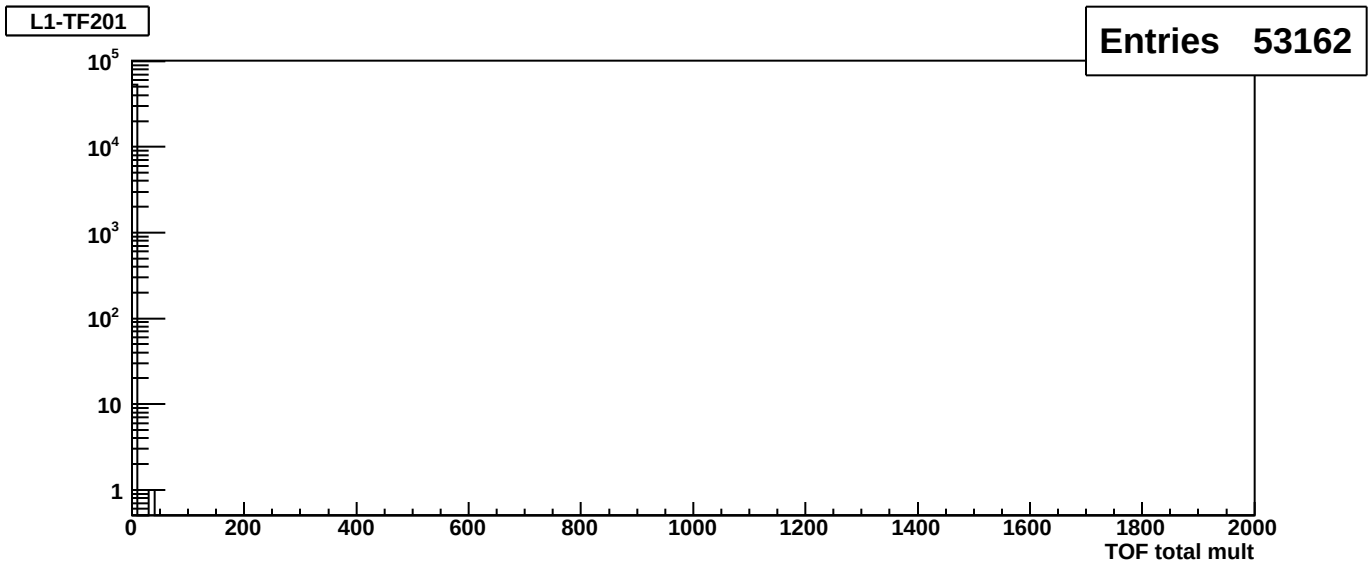

MIX-TF003
Entries 2232804
TOF MULT
TOF tray

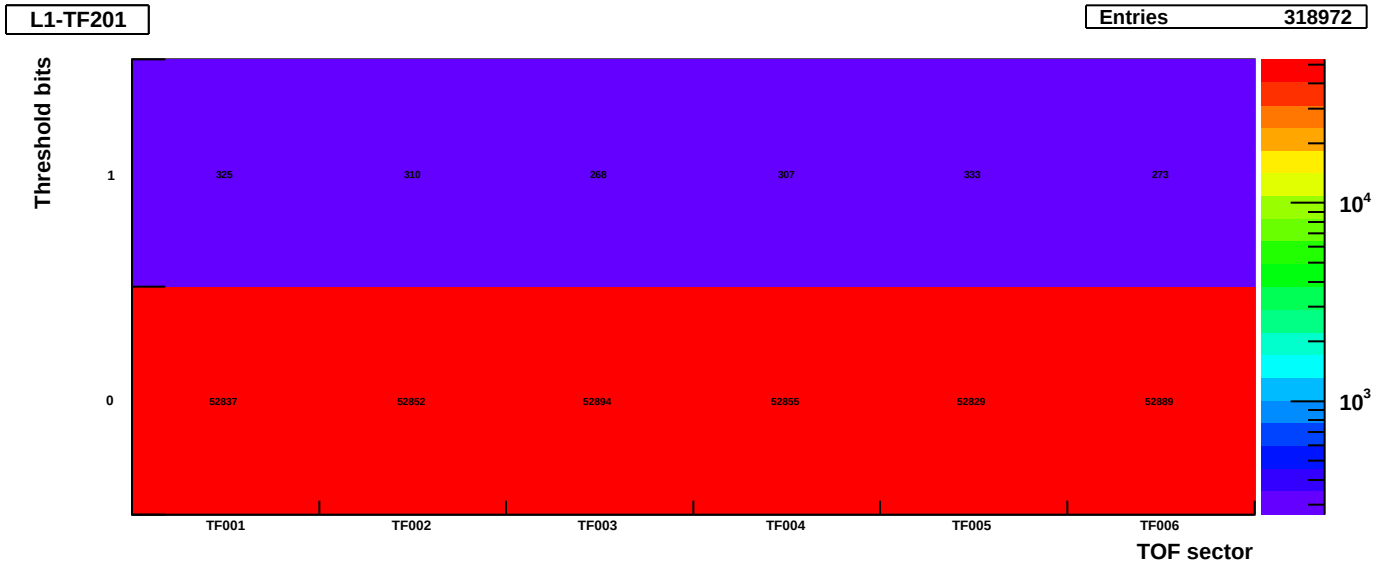

MIX-TF004
Entries 2232804
TOF MULT
TOF tray

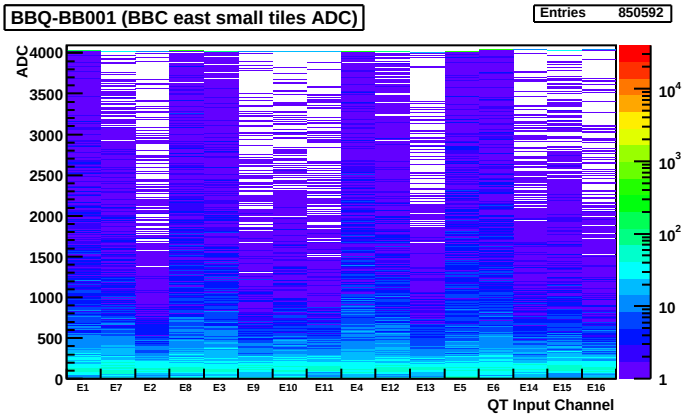

MIX-TF005
Entries 2232804
TOF MULT
TOF tray

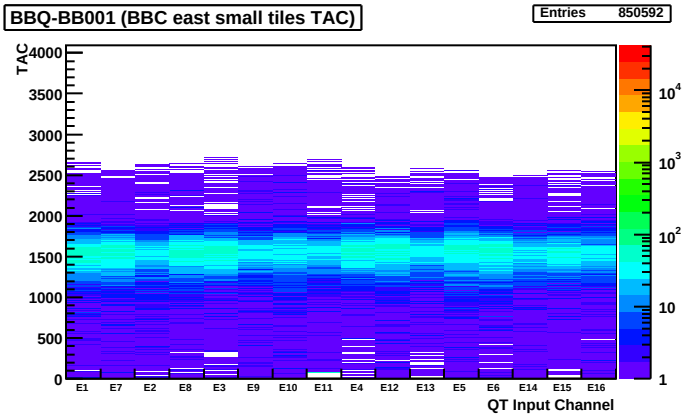

MIX-TF006
Entries 2232804
TOF MULT
TOF tray

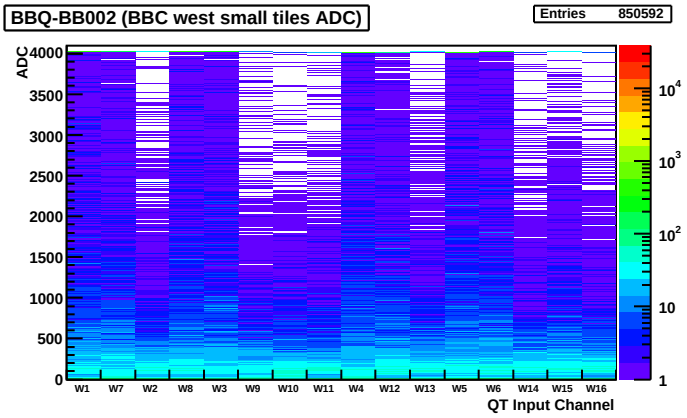

MIX-TF101
Entries 318972
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

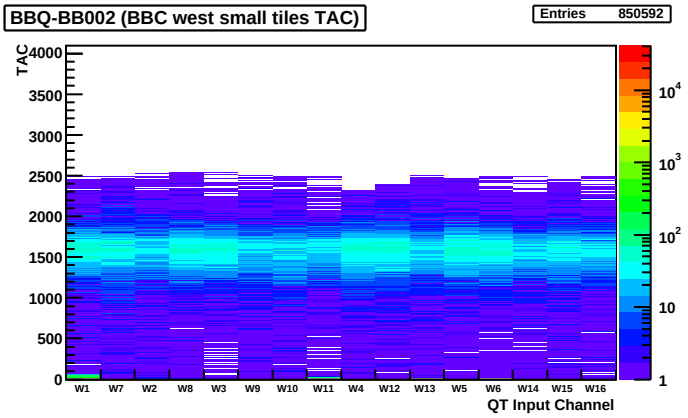

L1-TF201
Entries 53162
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

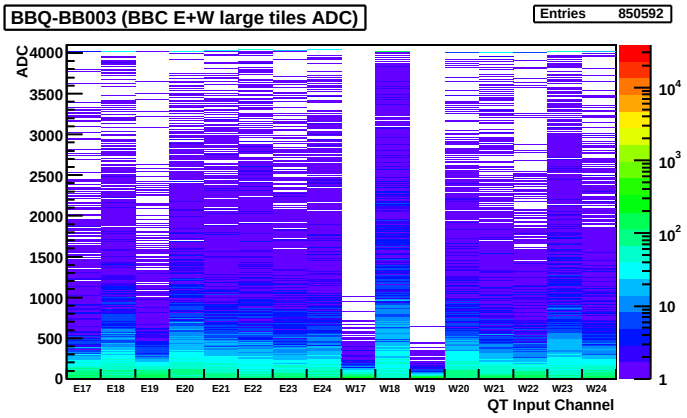

L1-TF201
Entries 318972
Threshold bits
1
0
325
310
268
307
333
273
52837
52852
52894
52855
52829
52889
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

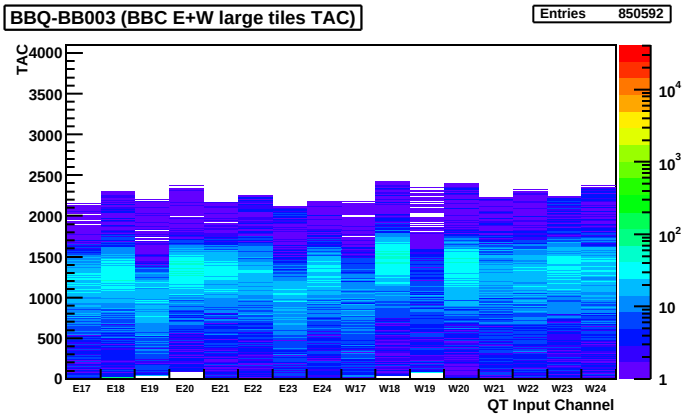

BBQ-BB001 (BBC east small tiles ADC)
Entries 850592
ADC
QT Input Channel

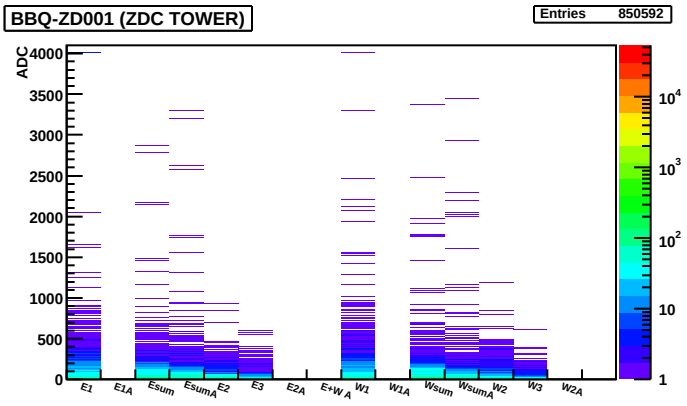

BBQ-BB001 (BBC east small tiles TAC)
Entries 850592
TAC
QT Input Channel

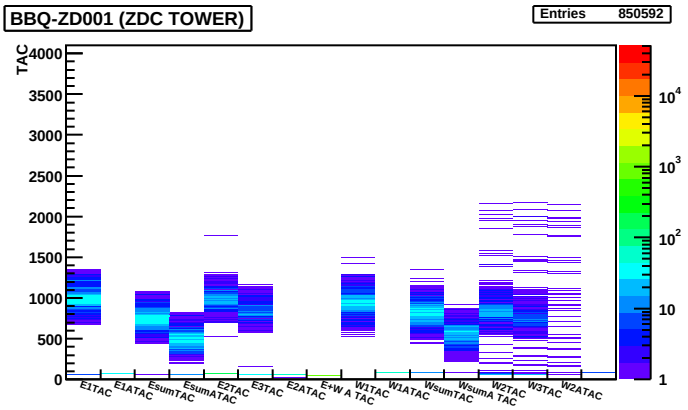

BBQ-BB002 (BBC west small tiles ADC)
Entries 850592
ADC
QT Input Channel

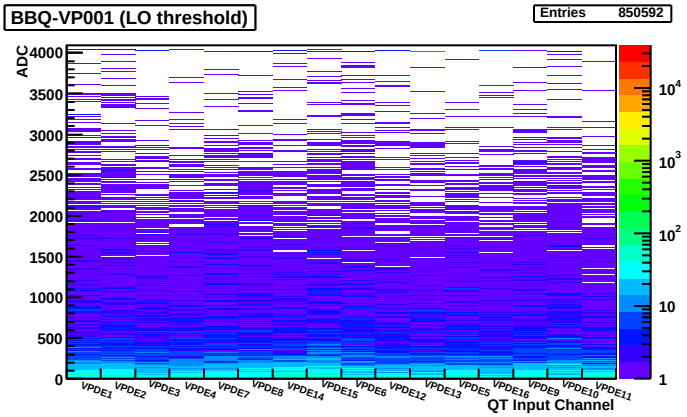

BBQ-BB002 (BBC west small tiles TAC)
Entries 850592
TAC
QT Input Channel

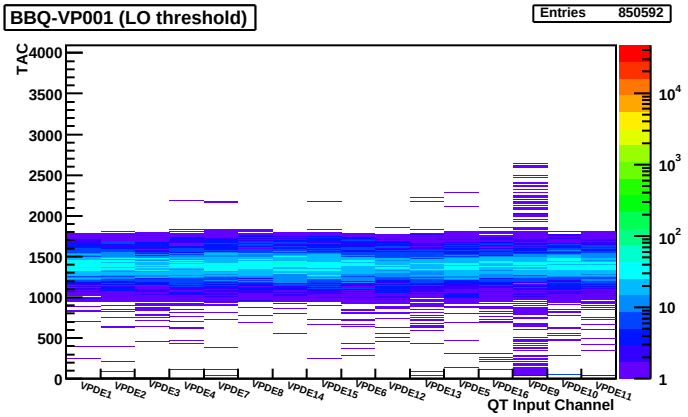

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 850592
ADC
QT Input Channel

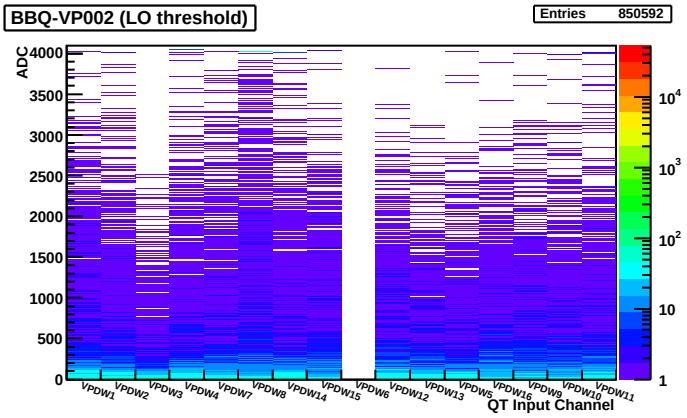

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 850592
TAC
QT Input Channel

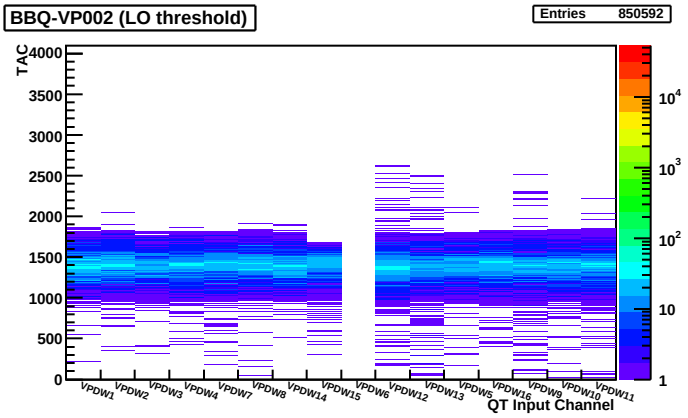

BBQ-ZD001 (ZDC TOWER)
Entries 850592
ADC

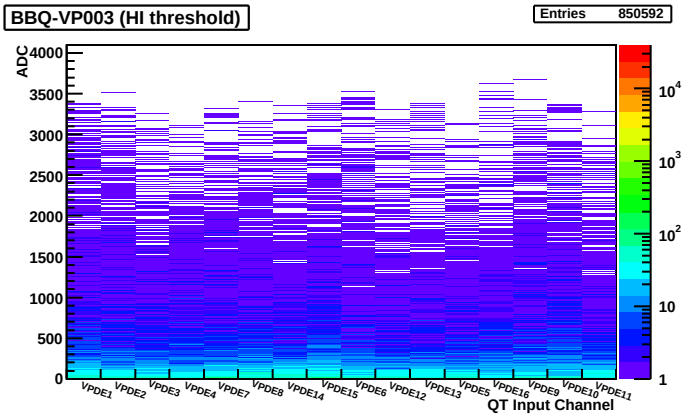

BBQ-ZD001 (ZDC TOWER)
Entries 850592
TAC

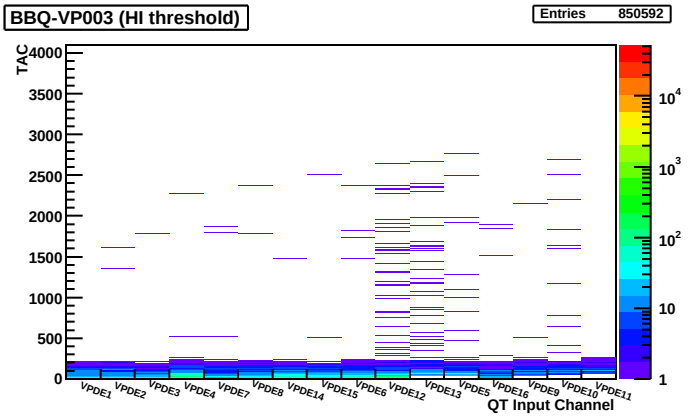

BBQ-VP001 (LO threshold)
Entries 850592
ADC
QT Input Channel

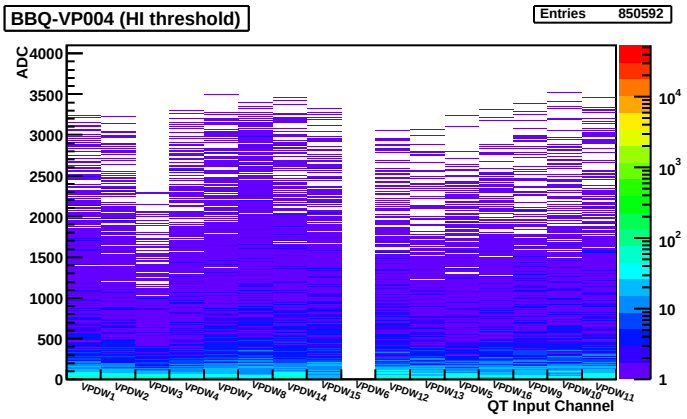

BBQ-VP001 (LO threshold)
Entries 850592
TAC
QT Input Channel

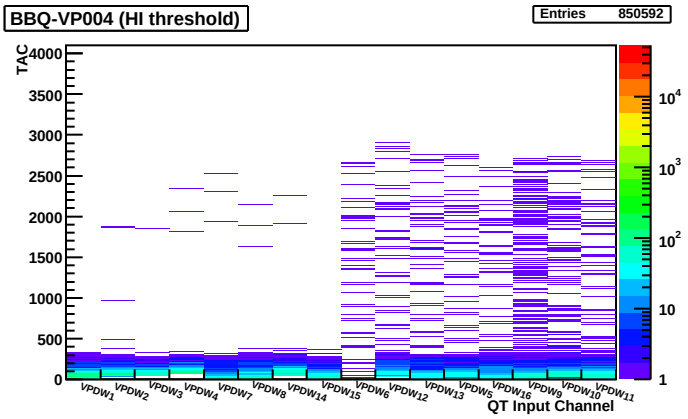

BBQ-VP002 (LO threshold)
Entries 850592
ADC
QT Input Channel

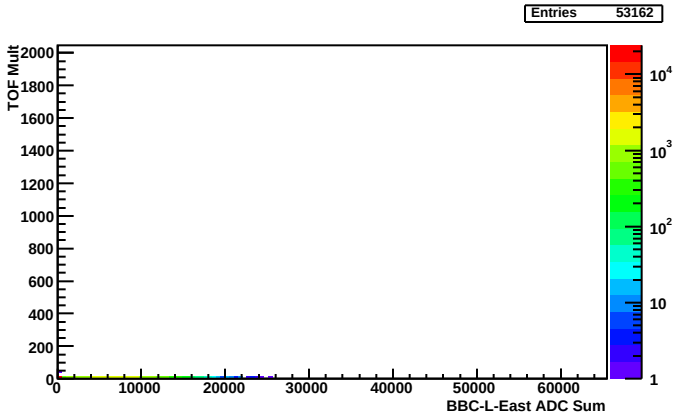

BBQ-VP002 (LO threshold)
Entries 850592
TAC
QT Input Channel

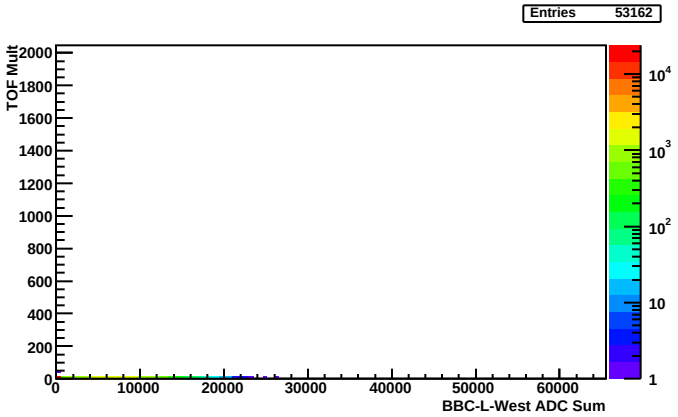

BBQ-VP003 (HI threshold)
Entries 850592
ADC
QT Input Channel

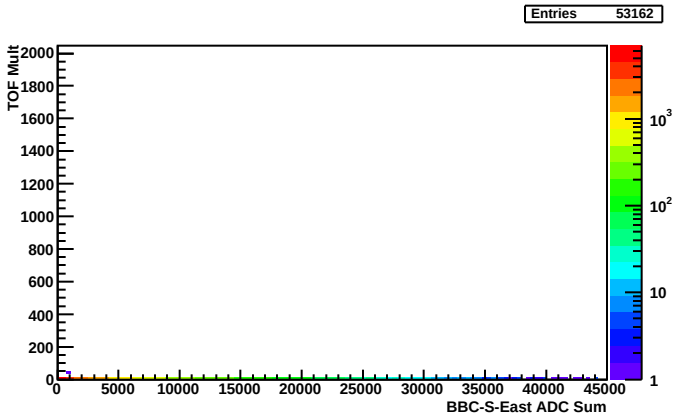

BBQ-VP003 (HI threshold)
Entries 850592
TAC
QT Input Channel

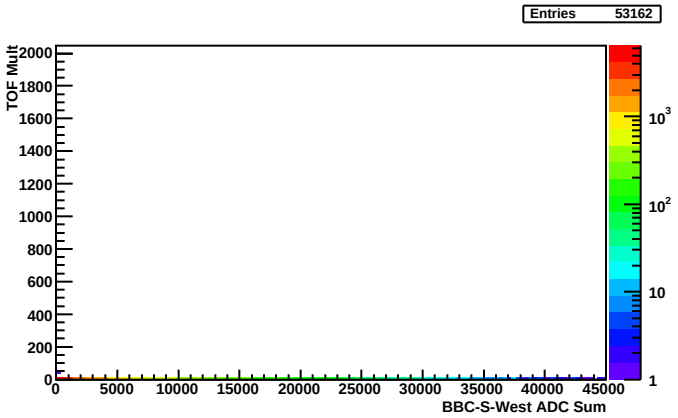

BBQ-VP004 (HI threshold)
Entries 850592
ADC
QT Input Channel

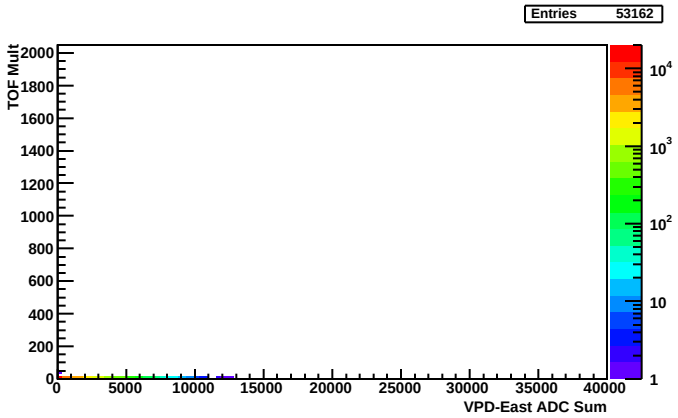

BBQ-VP004 (HI threshold)
Entries 850592
TAC
QT Input Channel

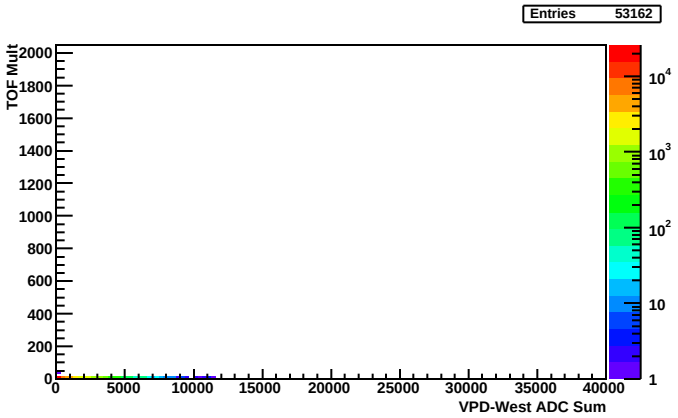

Entries 53162
TOF Mult
BBC-L-East ADC Sum

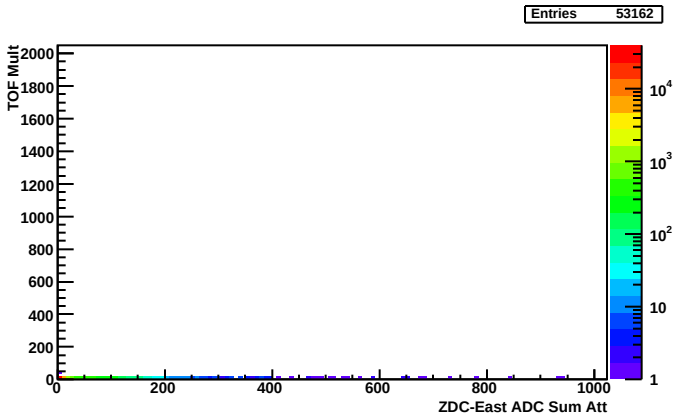

Entries 53162
TOF Mult
BBC-L-West ADC Sum

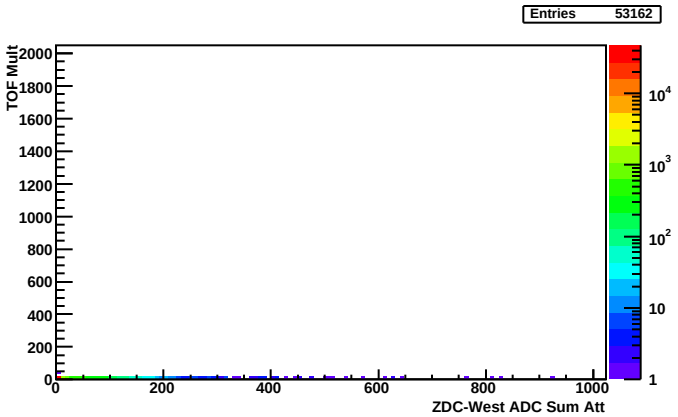

Entries 53162
TOF Mult
BBC-S-East ADC Sum

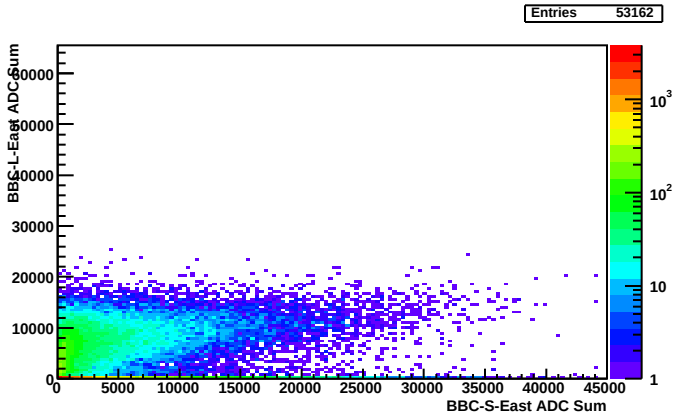

Entries 53162
TOF Mult
BBC-S-West ADC Sum

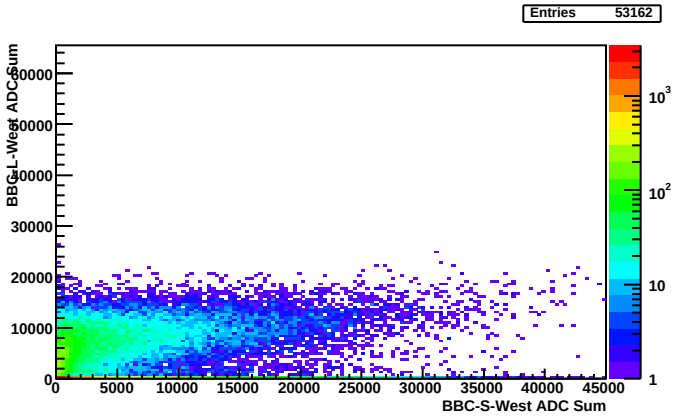

Entries 53162
TOF Mult
VPD-East ADC Sum

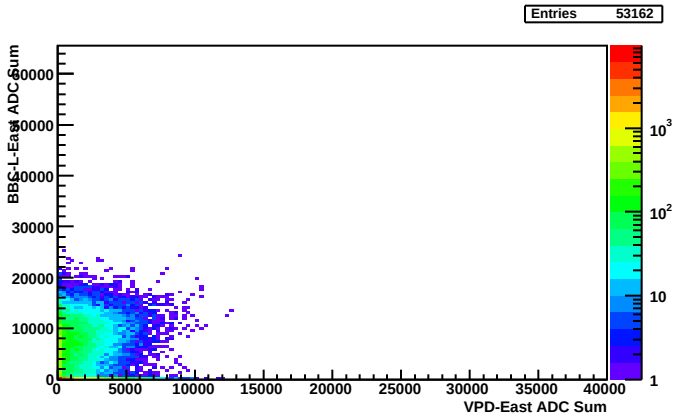

Entries 53162
TOF Mult
VPD-West ADC Sum

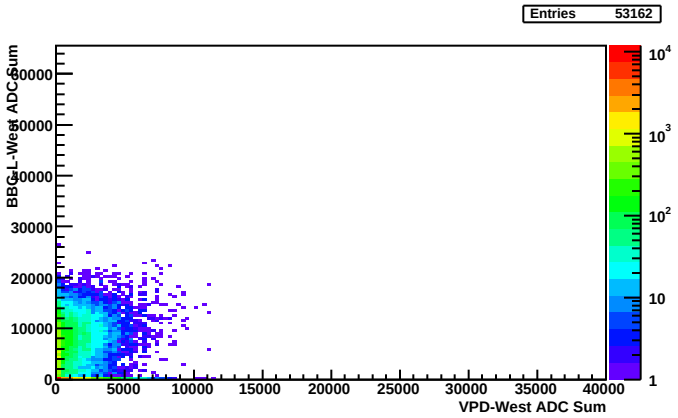

Entries 53162
TOF Mult
ZDC-East ADC Sum Att

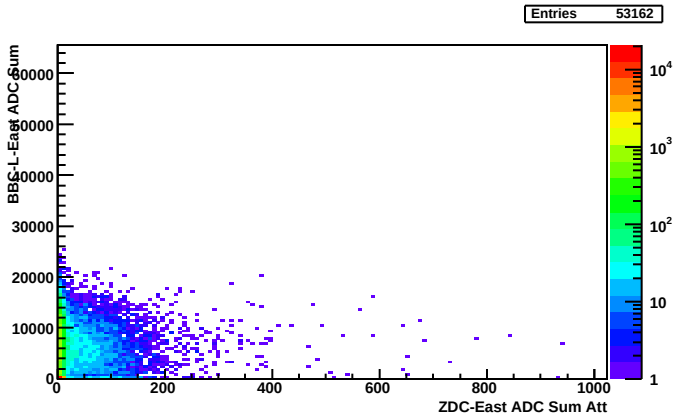

Entries 53162
TOF Mult
ZDC-West ADC Sum Att

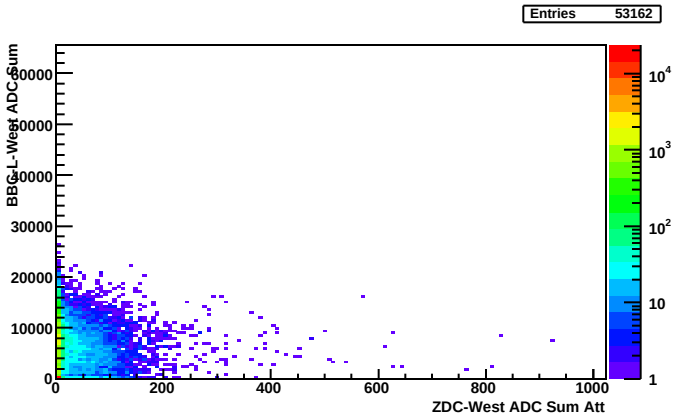

Entries 53162
BBC-L-East ADC Sum
BBC-S-East ADC Sum

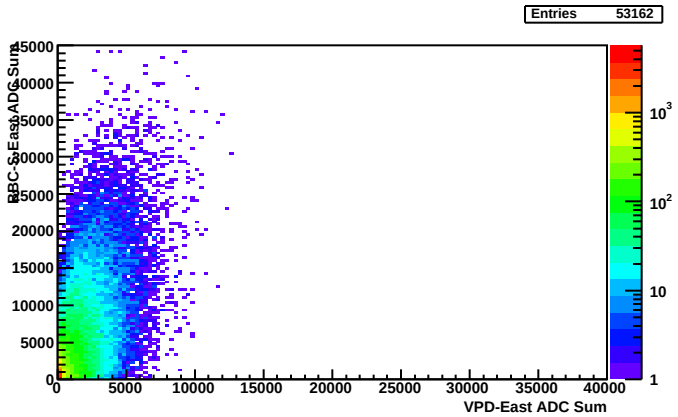

Entries 53162
BBC-L-West ADC Sum
BBC-S-West ADC Sum

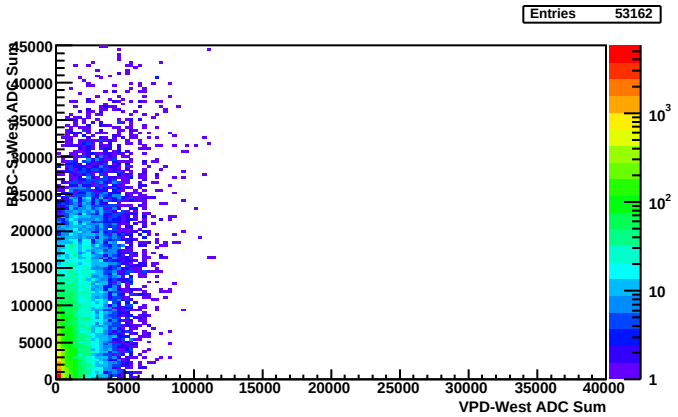

Entries 53162
BBC-L-East ADC Sum
VPD-East ADC Sum

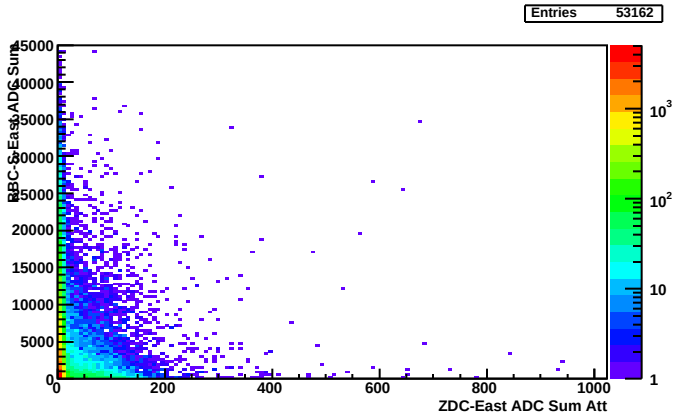

Entries 53162
BBC-L-West ADC Sum
VPD-West ADC Sum

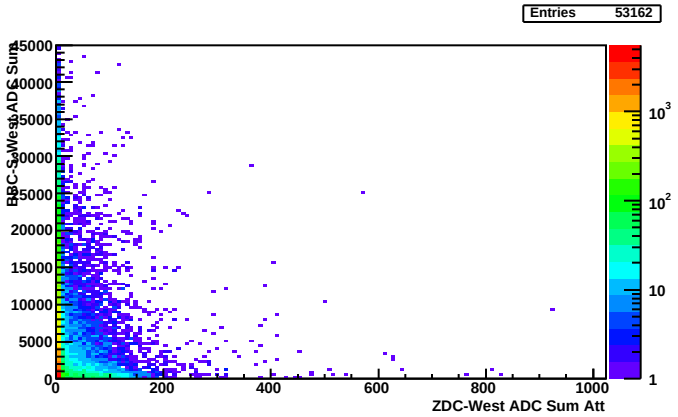

Entries 53162
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

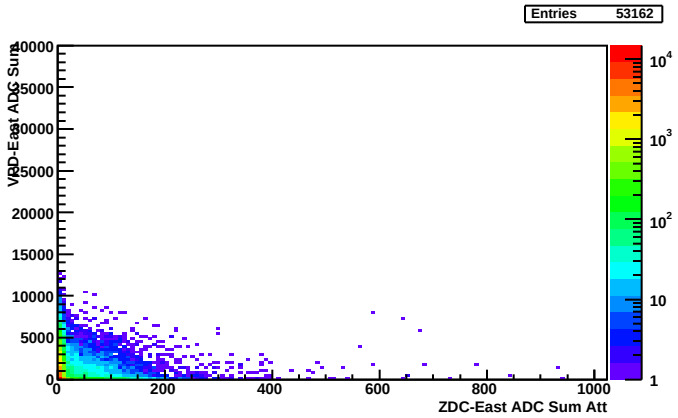

Entries 53162
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

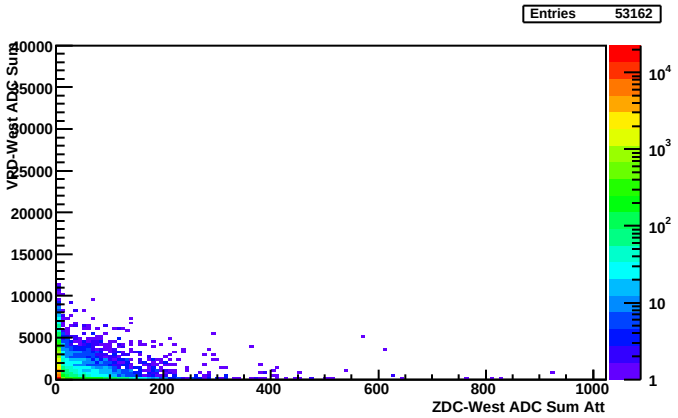

Entries 53162
BBC-S-East ADC Sum
VPD-East ADC Sum

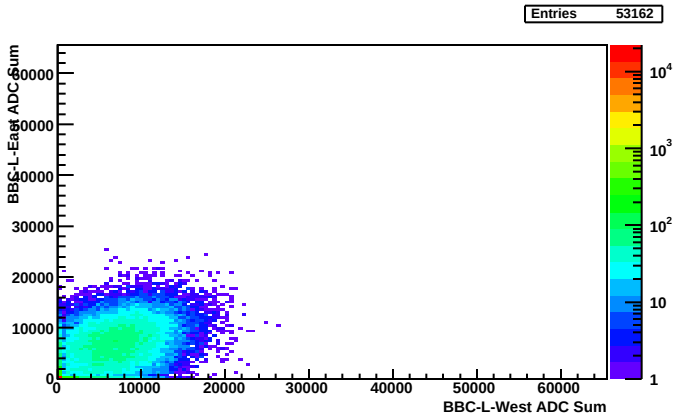

Entries 53162
BBC-S-West ADC Sum
VPD-West ADC Sum

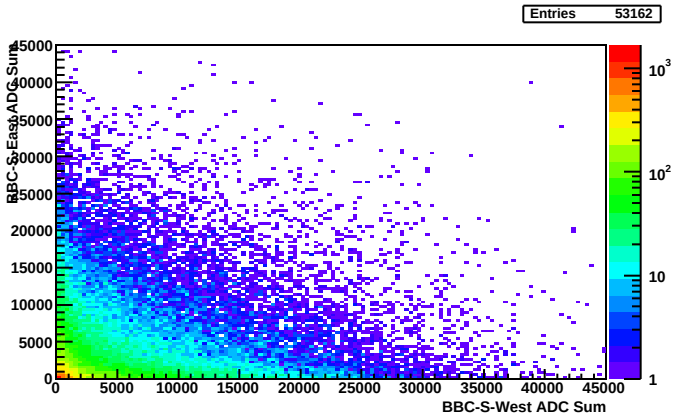

Entries 53162
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

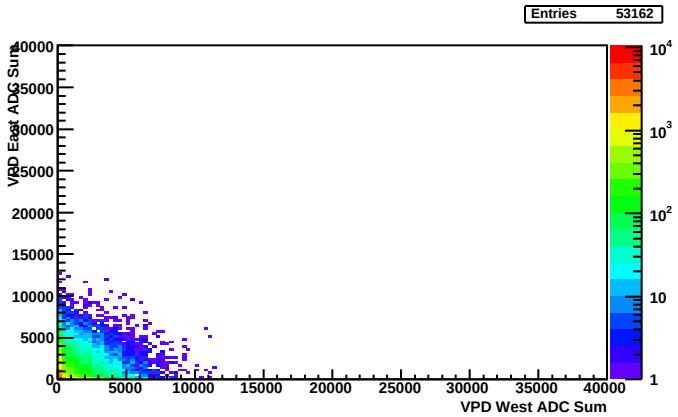

Entries 53162
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

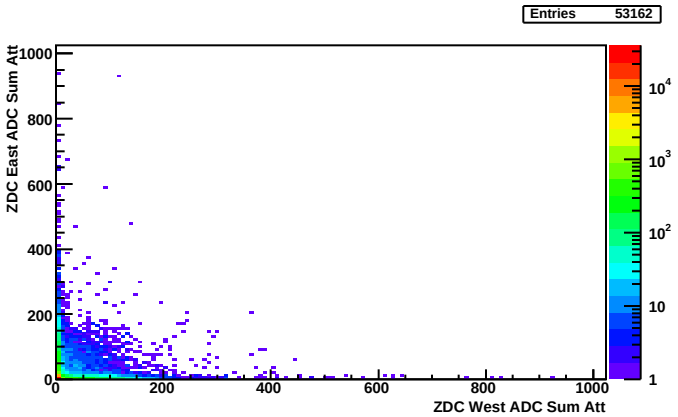

Entries 53162
VPD-East ADC Sum
ZDC-East ADC Sum Att

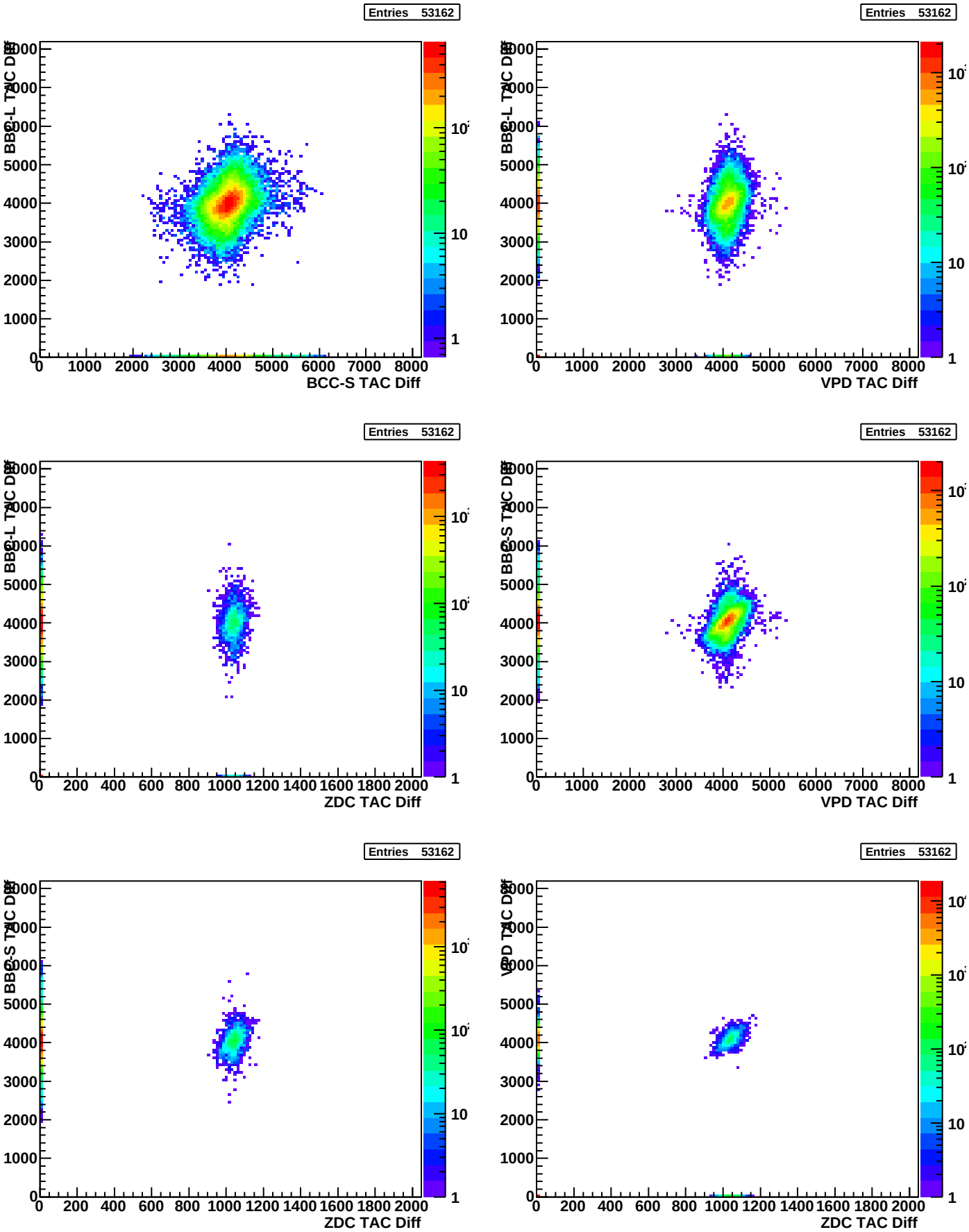

Entries 53162
VPD-West ADC Sum
ZDC-West ADC Sum Att

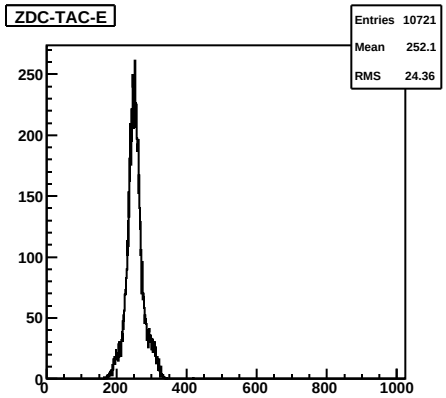

Entries 53162
BBC-L-East ADC Sum
BBC-L-West ADC Sum

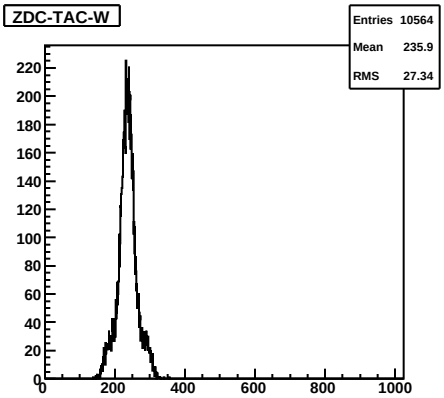

Entries 53162
BBC-S-East ADC Sum
BBC-S-West ADC Sum

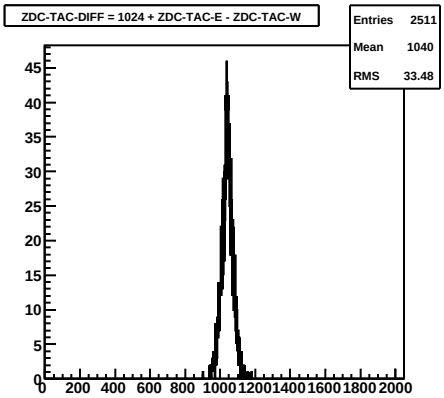

Entries 53162
VPD East ADC Sum
VPD West ADC Sum

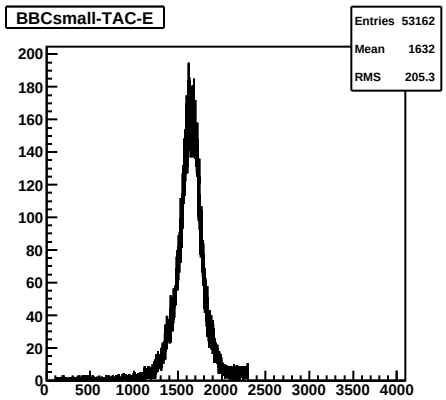

Entries 53162
ZDC East ADC Sum Att
ZDC West ADC Sum Att

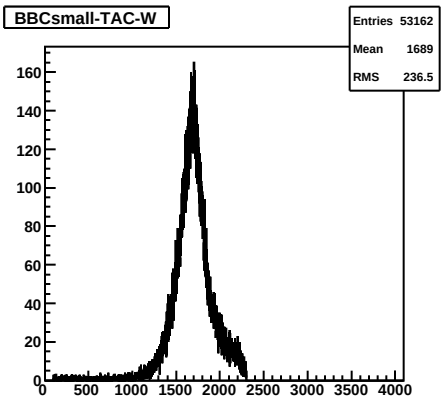

Entries 53162
BBC-L TAC Diff
BCC-S TAC Diff
Entries 53162
BBC-L TAC Diff
VPD TAC Diff
Entries 53162
BBC-L TAC Diff
ZDC TAC Diff
Entries 53162
BBC-S TAC Diff
VPD TAC Diff
Entries 53162
BBC-S TAC Diff
ZDC TAC Diff
Entries 53162
VPD TAC Diff
ZDC TAC Diff

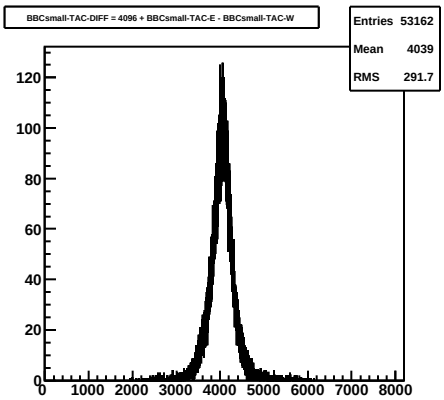

ZDC-TAC-E
Entries 10721
Mean 252.1
RMS 24.36

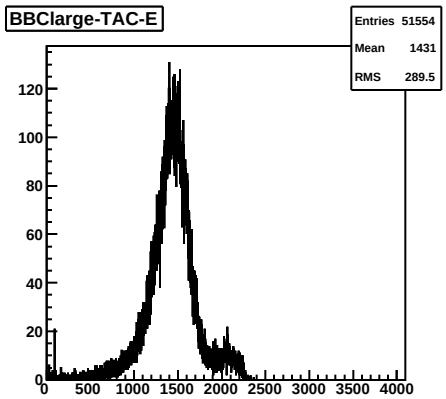

ZDC-TAC-W
Entries 10564
Mean 235.9
RMS 27.34

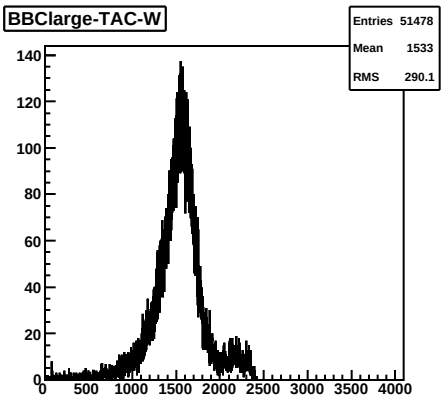

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2511
Mean 1040
RMS 33.48

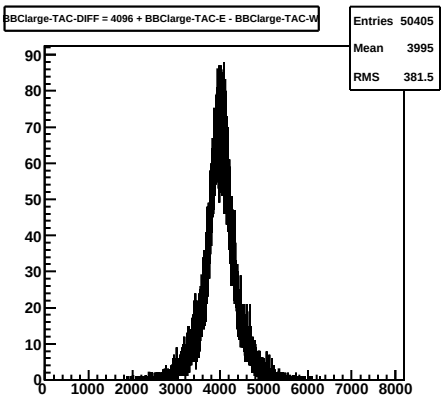

BBCsmall-TAC-E
Entries 53162
Mean 1632
RMS 205.3

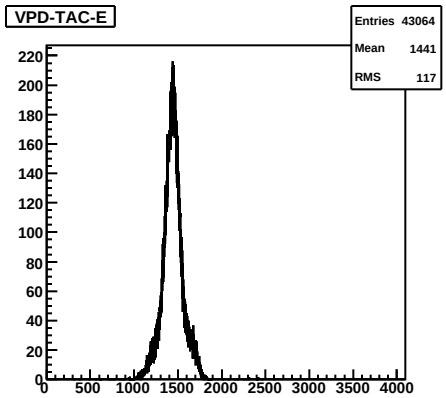

BBCsmall-TAC-W
Entries 53162
Mean 1689
RMS 236.5

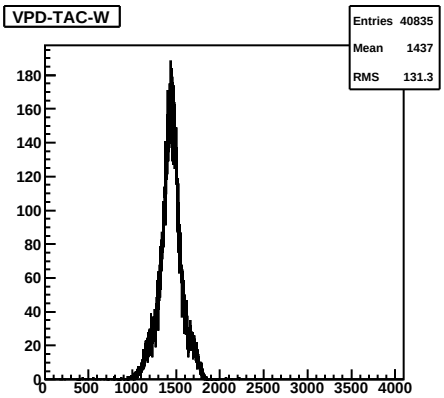

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 53162
Mean 4039
RMS 291.7

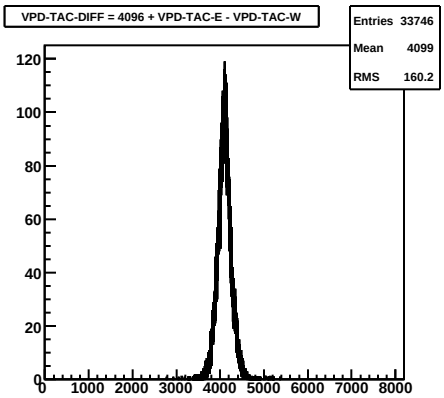

BBClarge-TAC-E
Entries 51554
Mean 1431
RMS 289.5

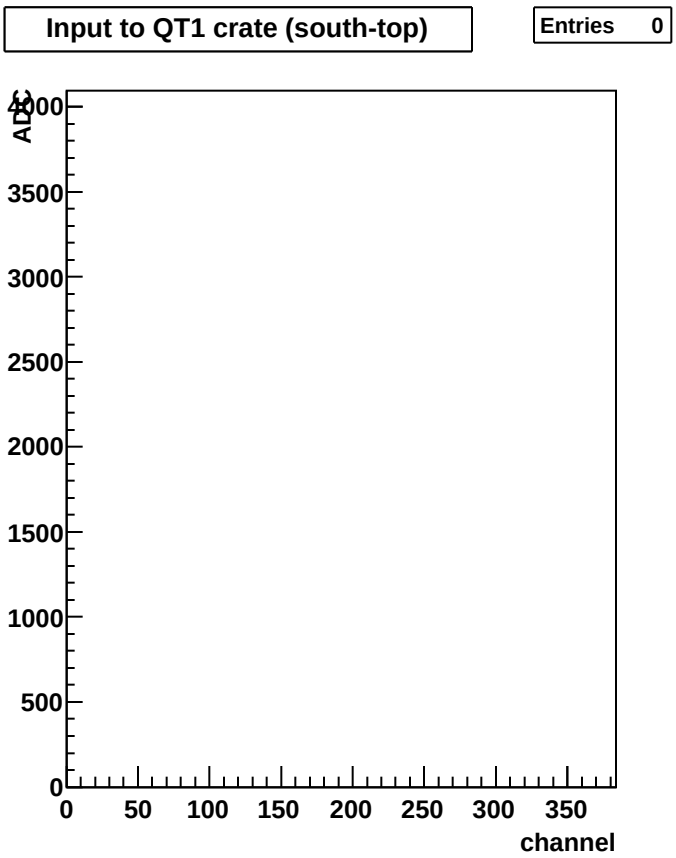

BBClarge-TAC-W
Entries 51478
Mean 1533
RMS 290.1

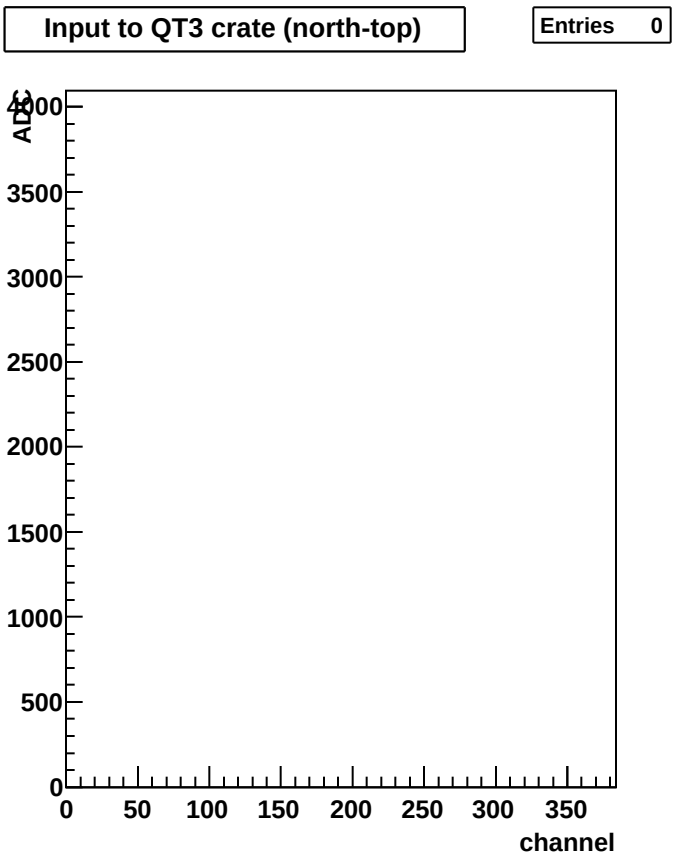

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 50405
Mean 3995
RMS 381.5

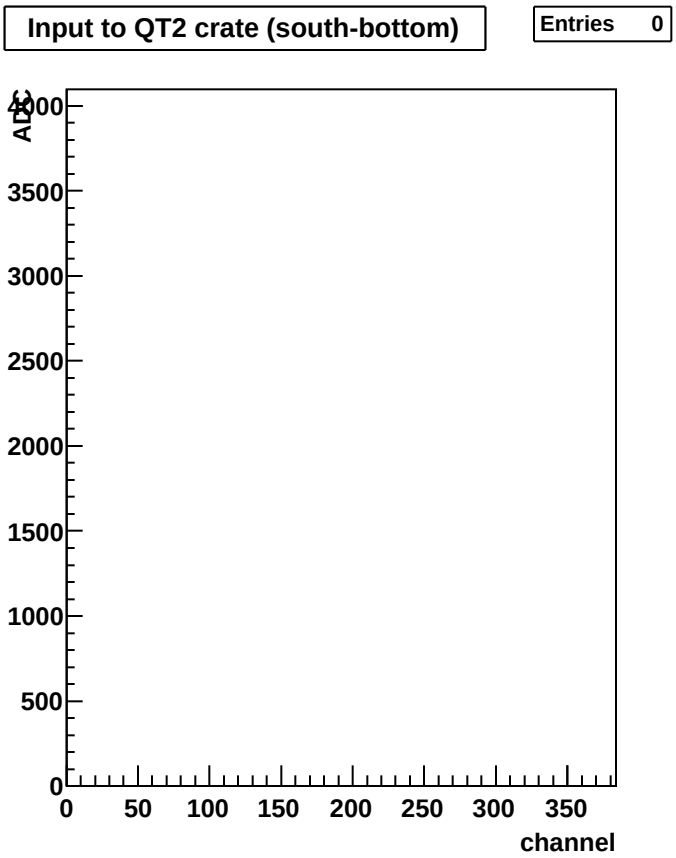

VPD-TAC-E
Entries 43064
Mean 1441
RMS 117

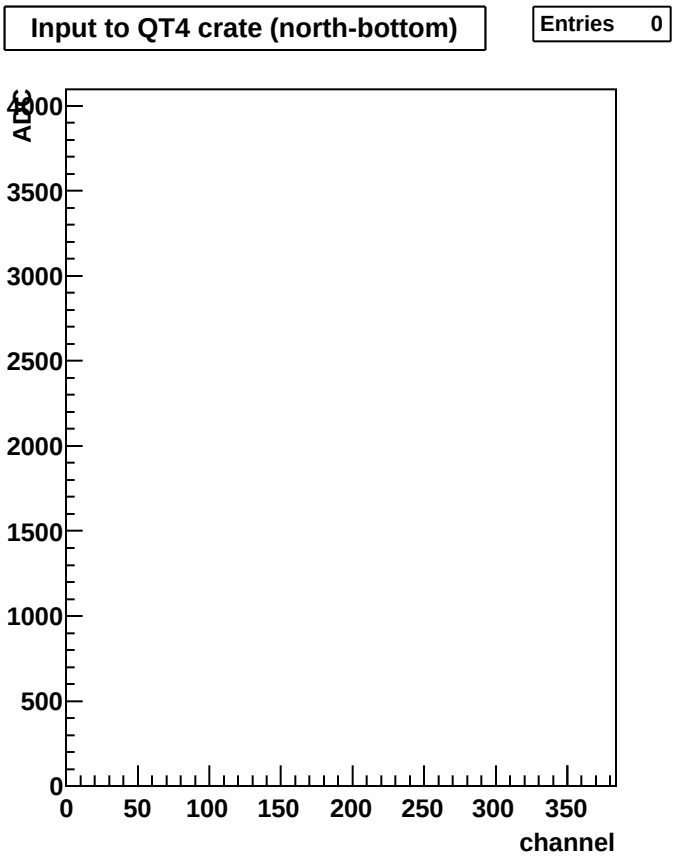

VPD-TAC-W
Entries 40835
Mean 1437
RMS 131.3

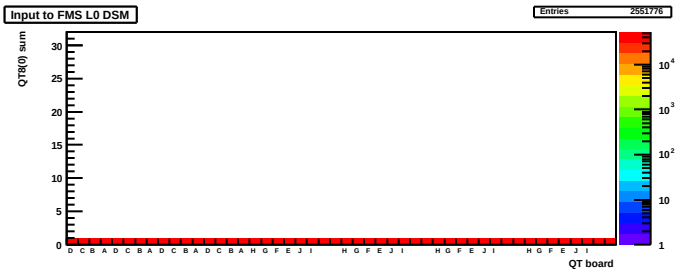

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 33746
Mean 4099
RMS 160.2

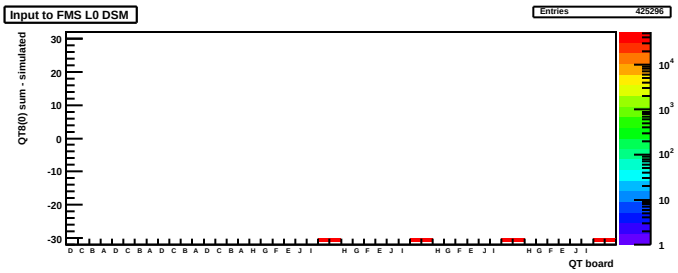

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

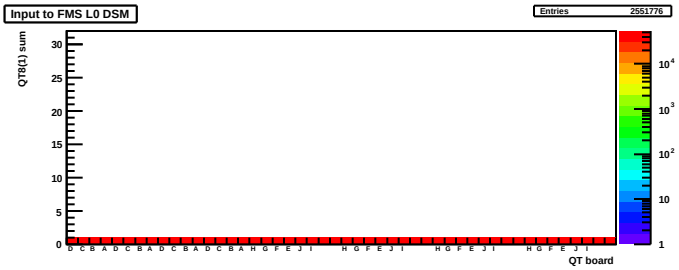

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

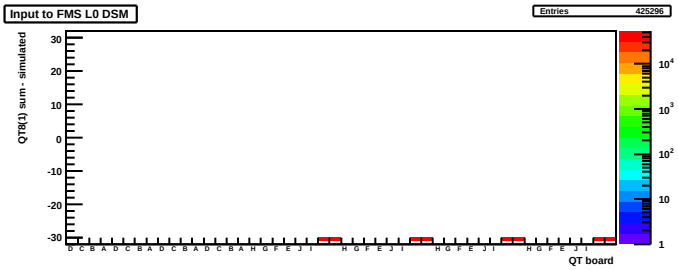

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

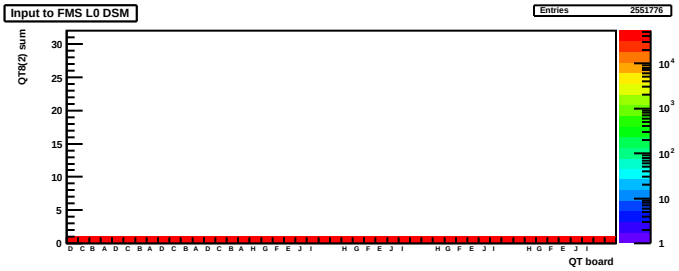

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

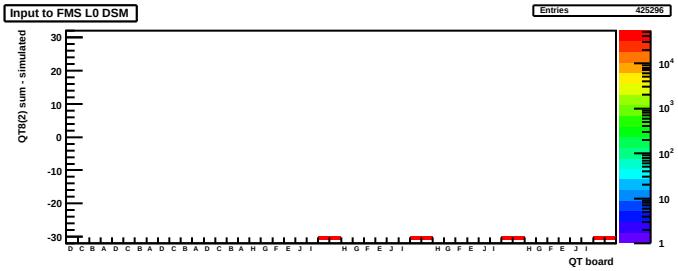

Input to FMS L0 DSM
Entries 2551776
QT8(0) sum
QT board

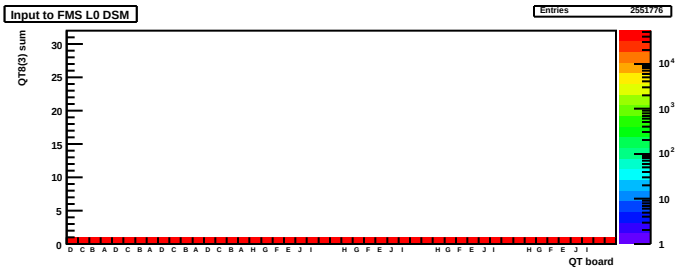

Input to FMS L0 DSM
Entries 425296
QT8(0) sum - simulated
QT board

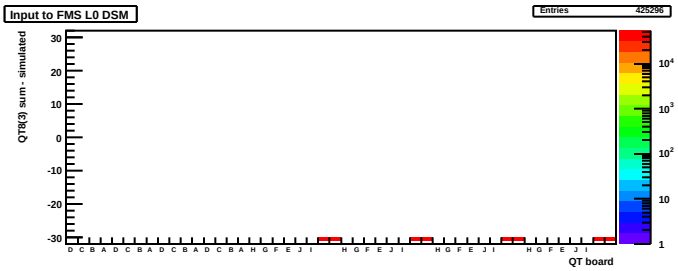

Input to FMS L0 DSM
Entries 2551776
QT8(1) sum
QT board

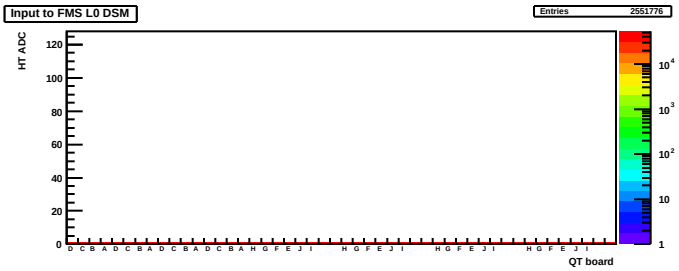

Input to FMS L0 DSM
Entries 425296
QT8(1) sum - simulated
QT board

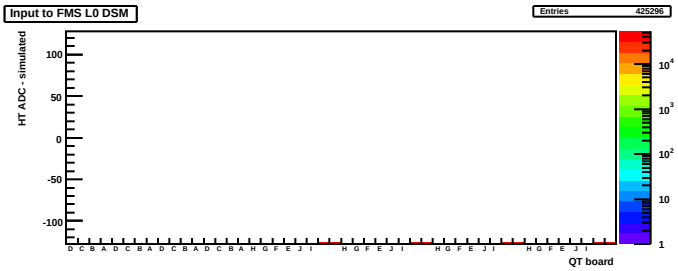

Input to FMS L0 DSM
Entries 2551776
QT8(2) sum
QT board

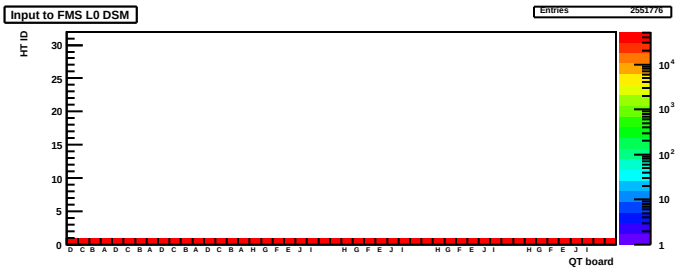

Input to FMS L0 DSM
Entries 425296
QT8(2) sum - simulated
QT board

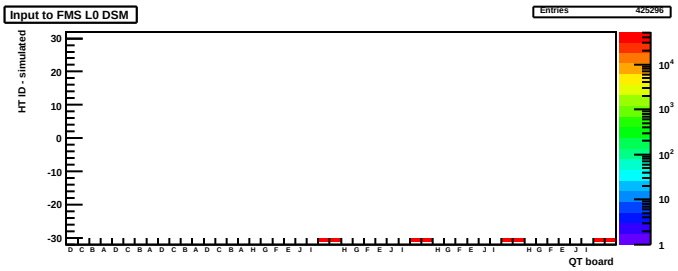

Input to FMS L0 DSM
Entries 2551776
QT8(3) sum
QT board

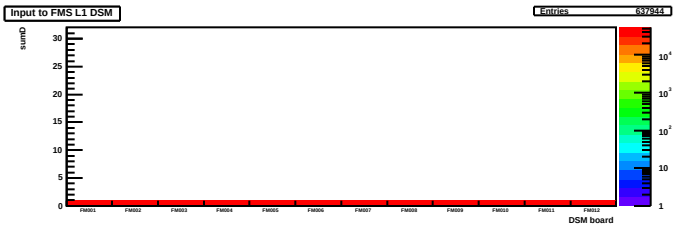

Input to FMS L0 DSM
Entries 425296
QT8(3) sum - simulated
QT board

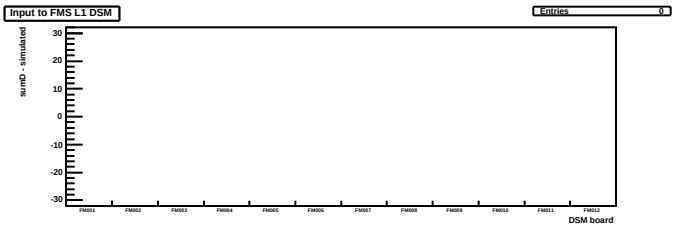

Input to FMS L0 DSM
Entries 2551776
HT ADC
QT board

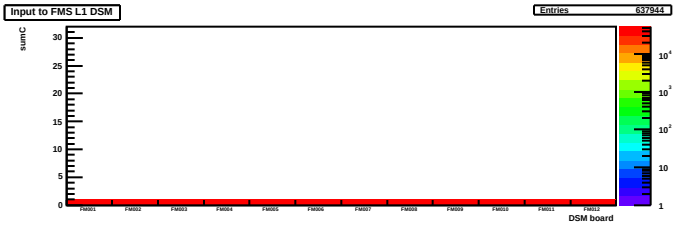

Input to FMS L0 DSM
Entries 425296
HT ADC - simulated
QT board

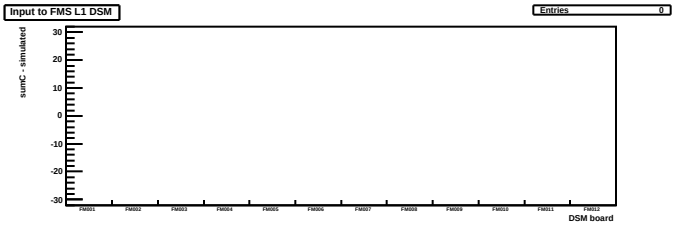

Input to FMS L0 DSM
Entries 2551776
HT ID
QT board

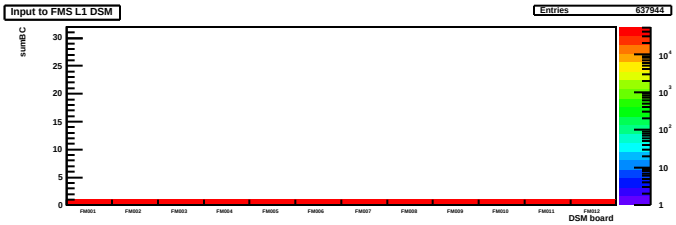

Input to FMS L0 DSM
Entries 425296
HT ID - simulated
QT board

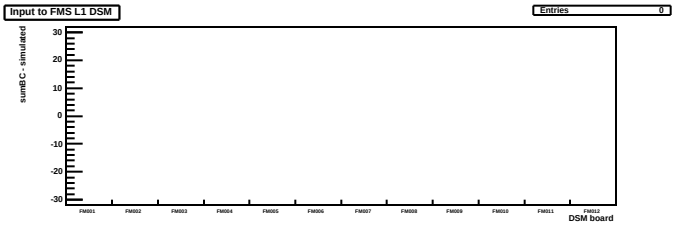

Input to FMS L1 DSM
Entries 637944
sumD
DSM board

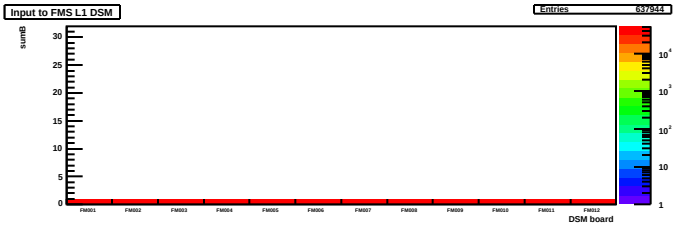

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

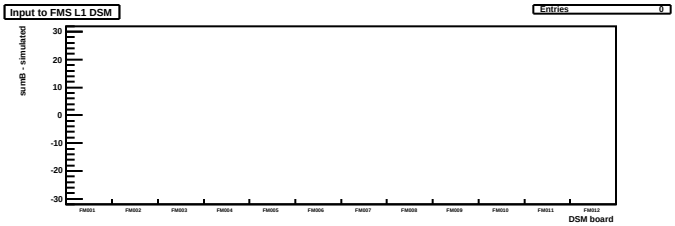

Input to FMS L1 DSM
Entries 637944
sumC
DSM board

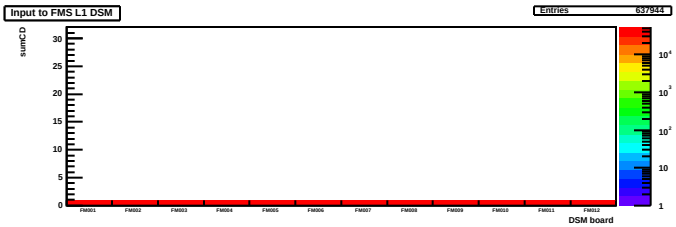

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

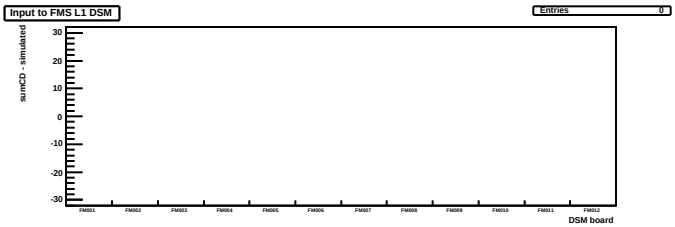

Input to FMS L1 DSM
Entries 637944
sumBC
DSM board

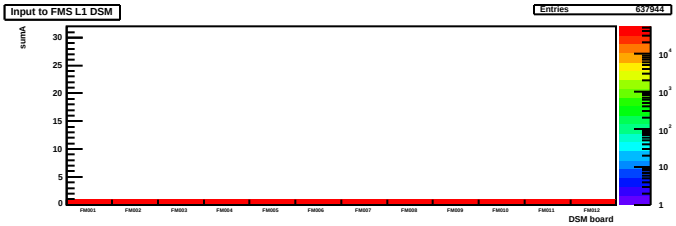

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

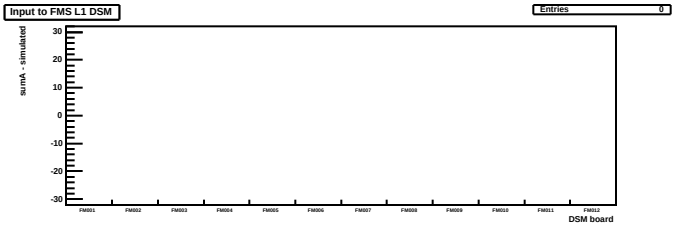

Input to FMS L1 DSM
Entries 637944
sumB
DSM board

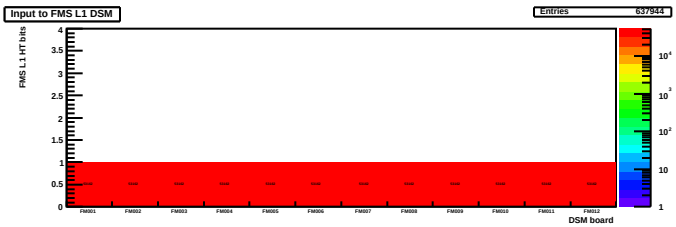

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

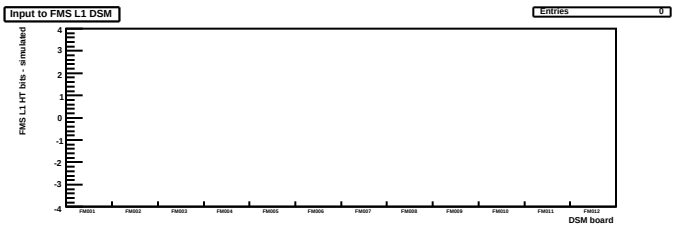

Input to FMS L1 DSM
Entries 637944
sumCD
DSM board

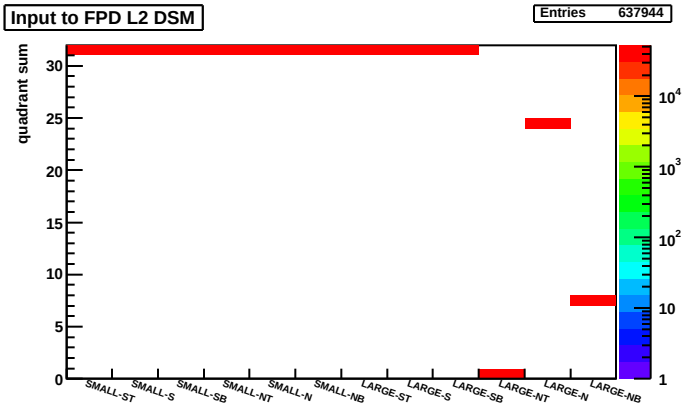

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

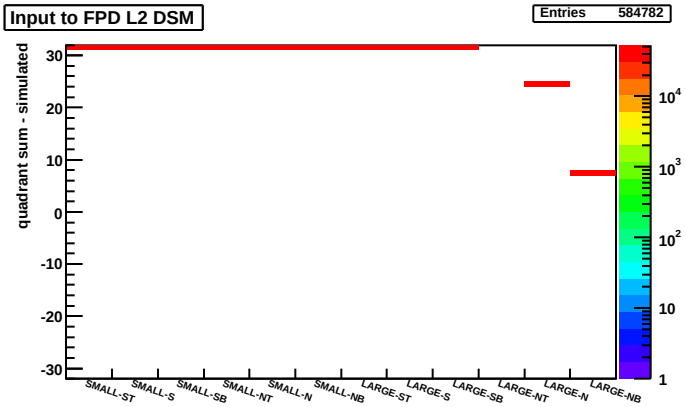

Input to FMS L1 DSM
Entries 637944
sumA
DSM board

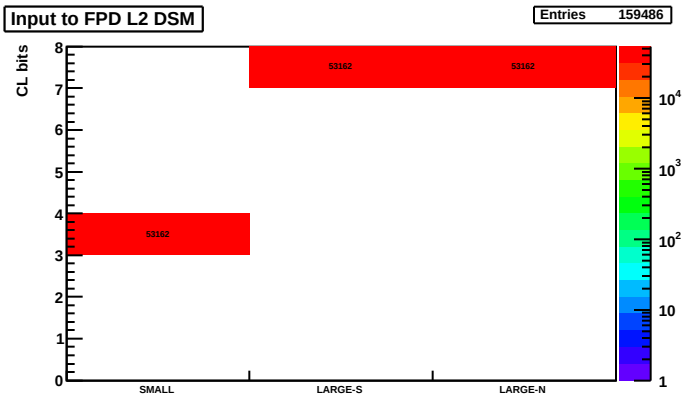

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

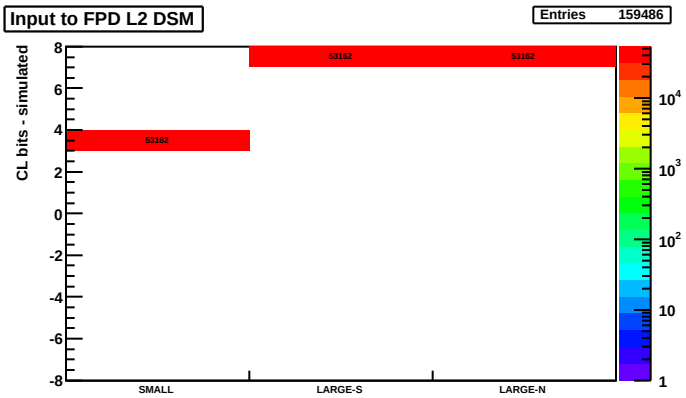

Input to FMS L1 DSM
Entries 637944
FMS L1 HT bits
DSM board

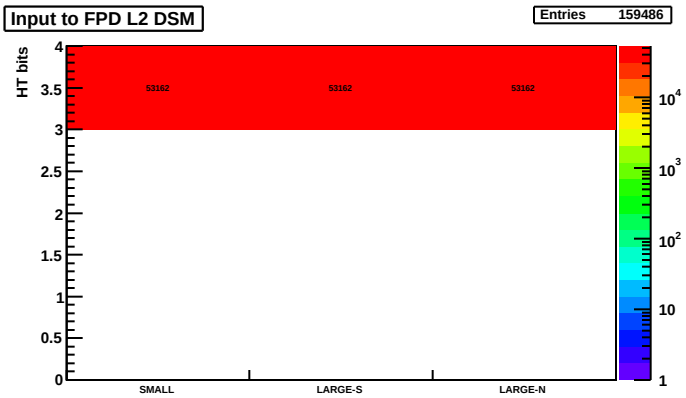

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

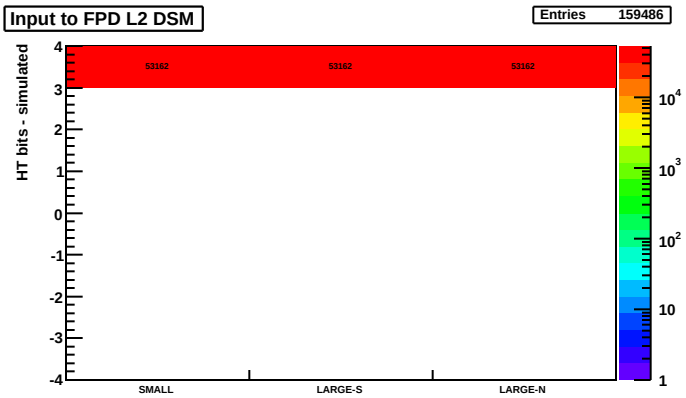

Input to FPD L2 DSM
Entries 637944
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

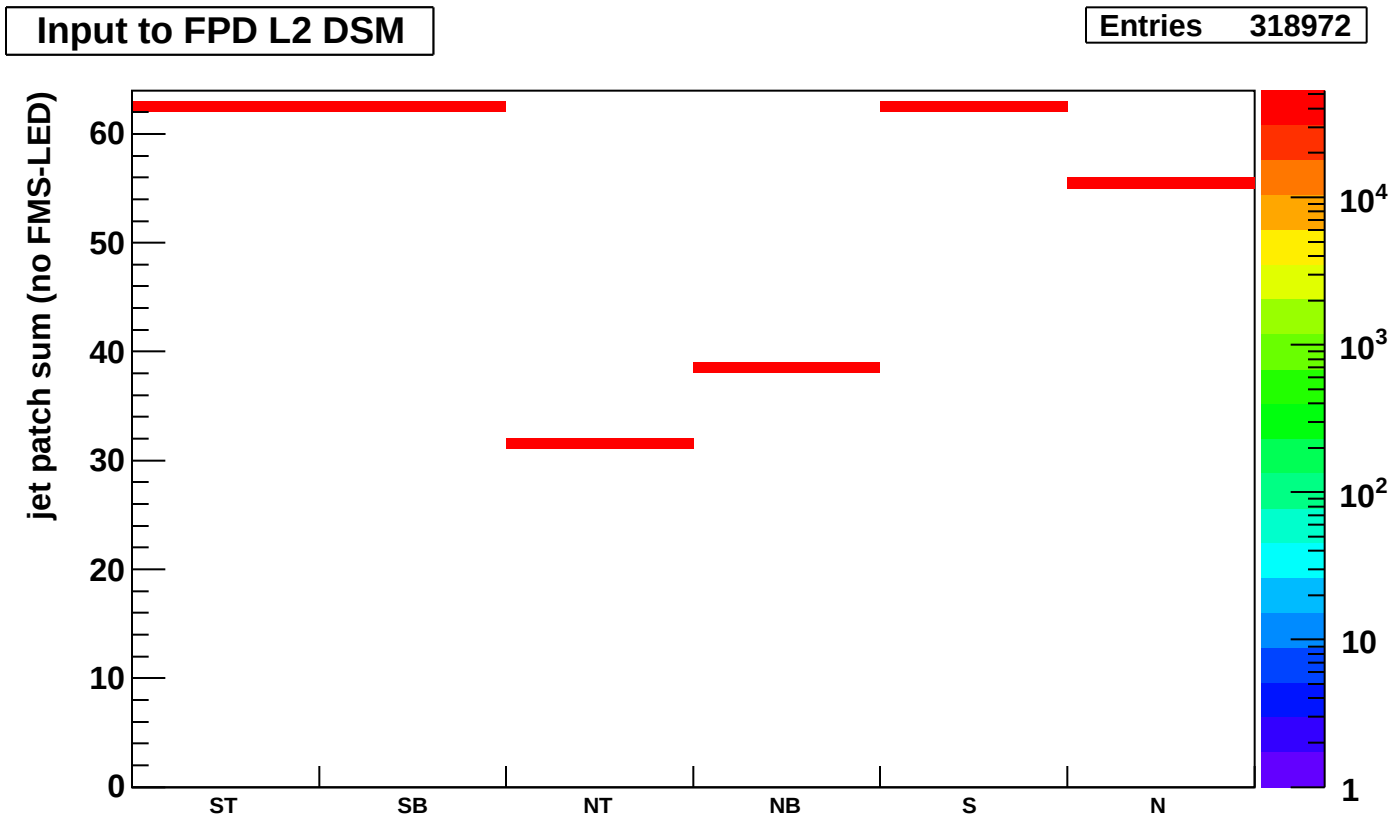

Input to FPD L2 DSM
Entries 584782
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

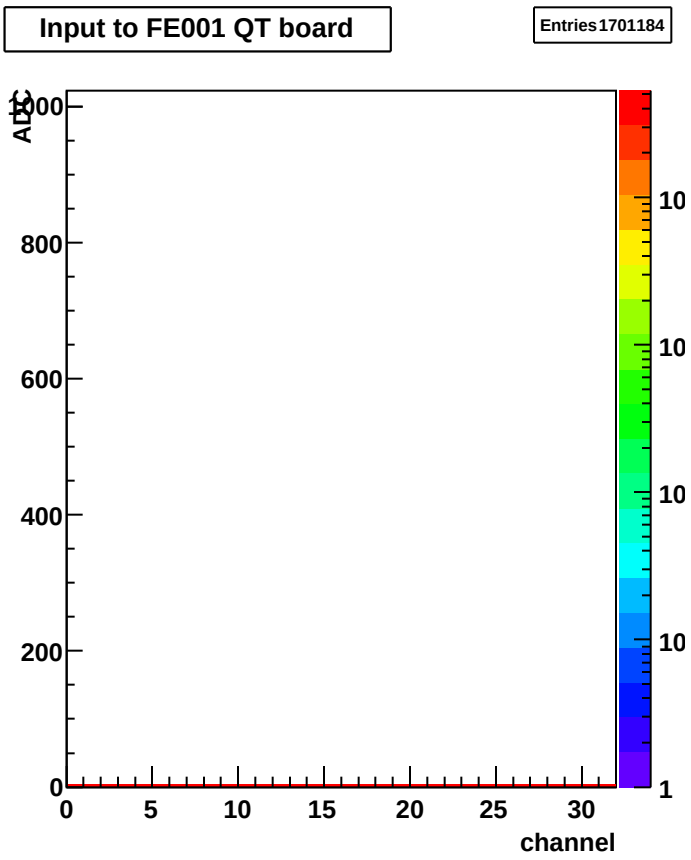

Input to FPD L2 DSM
Entries 159486
CL bits
53162
53162
53162
SMALL
LARGE-S
LARGE-N

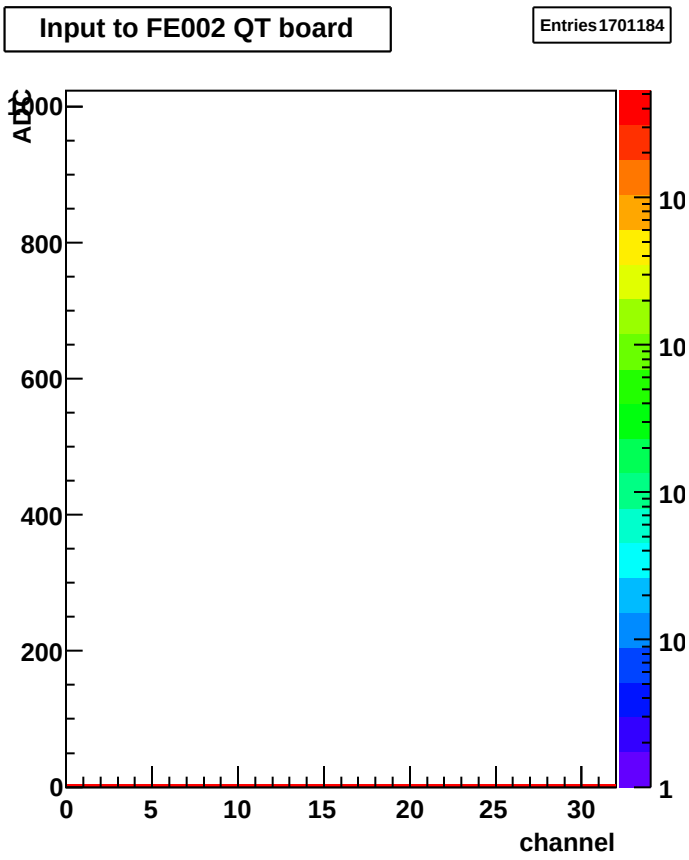

Input to FPD L2 DSM
Entries 159486
CL bits - simulated
53162
53162
53162
SMALL
LARGE-S
LARGE-N

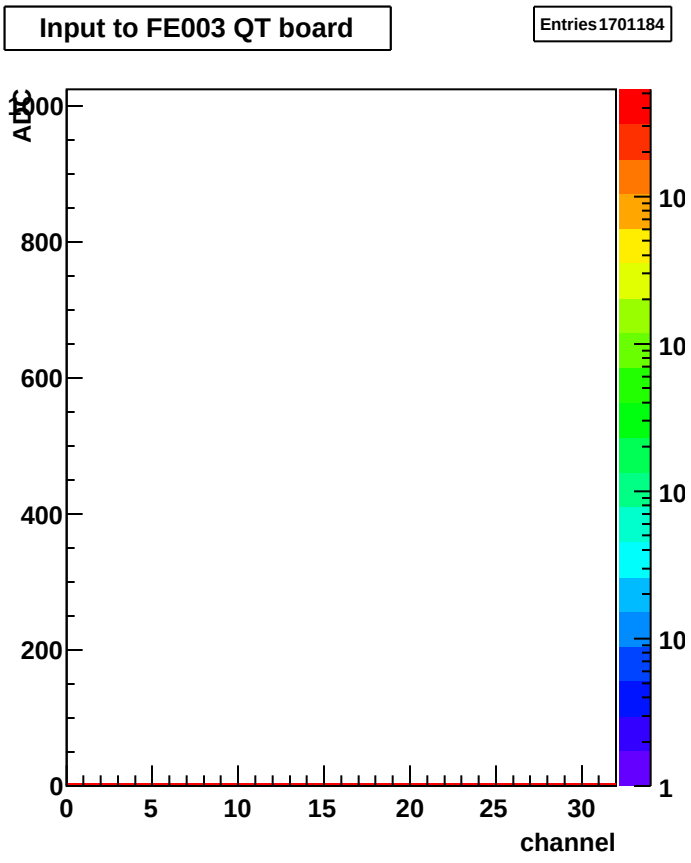

Input to FPD L2 DSM
Entries 159486
HT bits
53162
53162
53162
SMALL
LARGE-S
LARGE-N

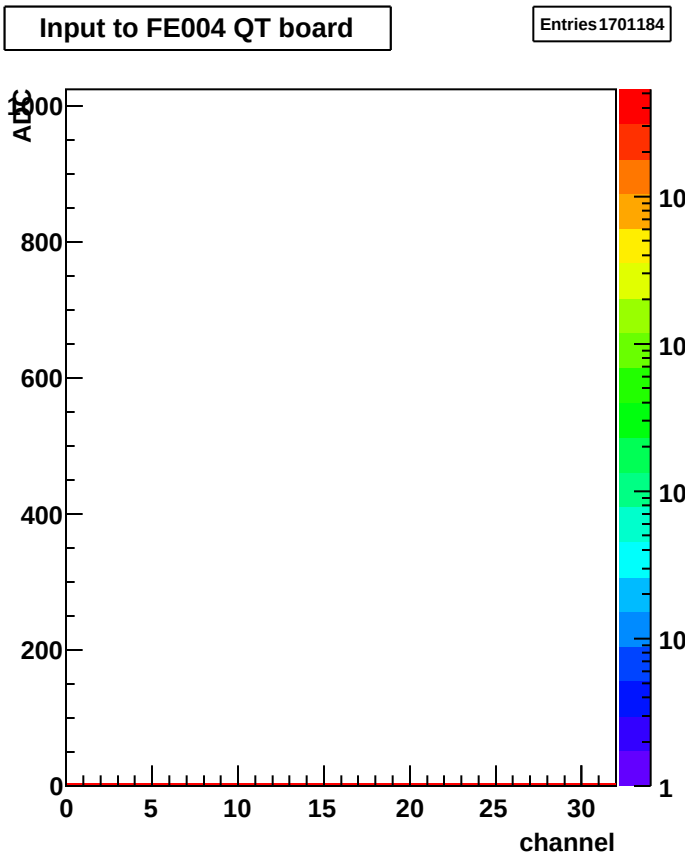

Input to FPD L2 DSM
Entries 159486
HT bits - simulated
53162
53162
53162
SMALL
LARGE-S
LARGE-N

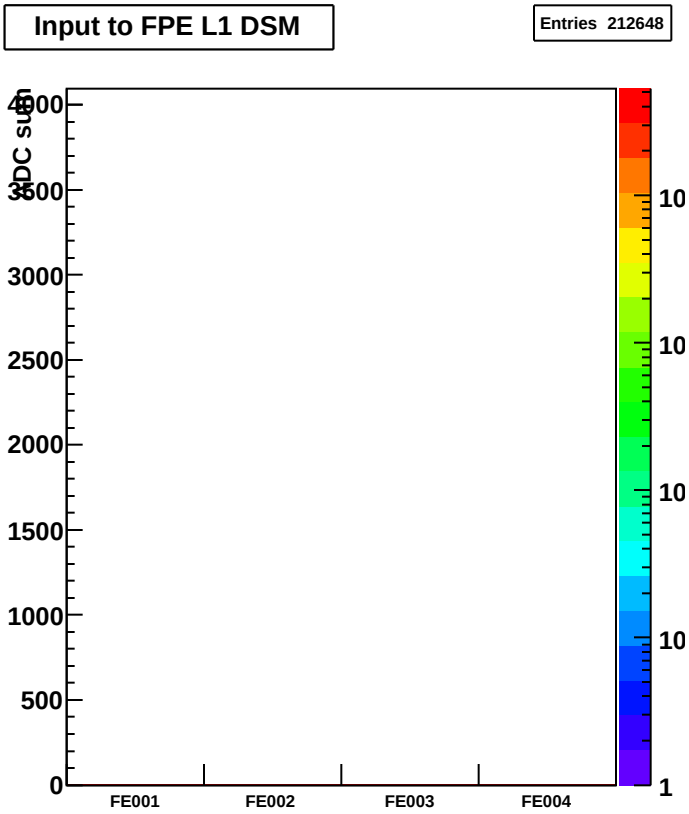

Input to FPD L2 DSM
Entries 318972
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

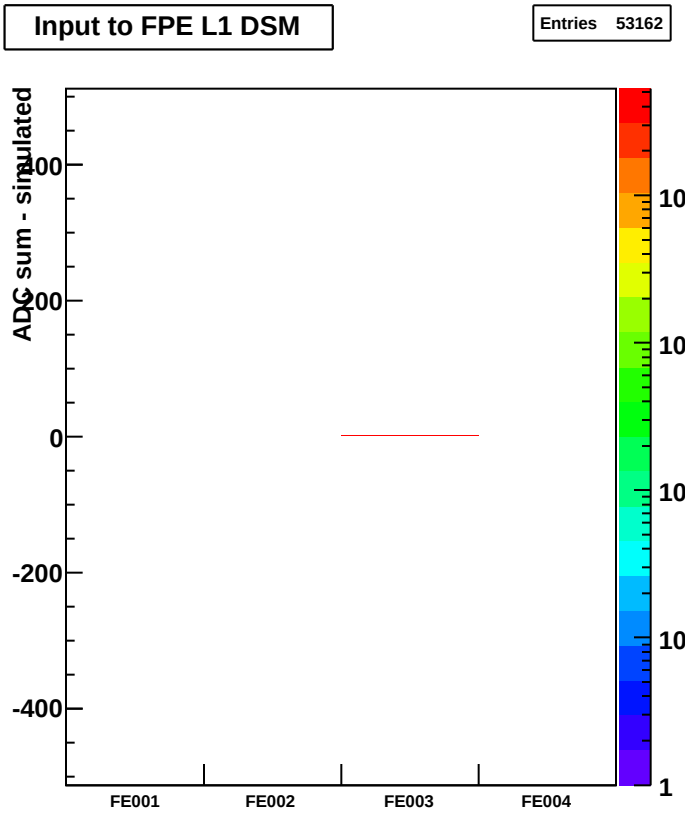

Input to FE001 QT board
Entries 1701184
ADC
channel


Input to FE002 QT board
Entries 1701184
ADC
channel

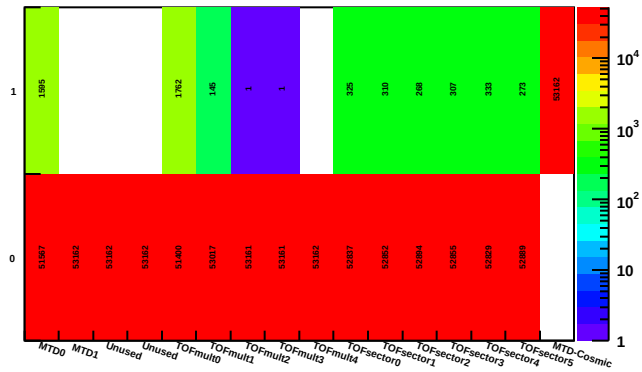

Input to FE003 QT board
Entries 1701184
ADC
channel


Input to FE004 QT board
Entries 1701184
ADC
channel

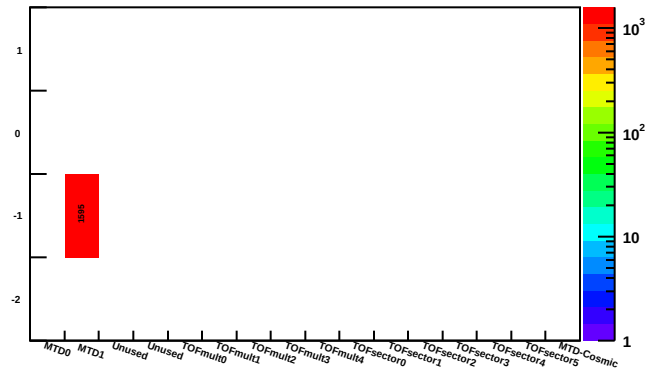

Input to FPE L1 DSM
Entries 212648
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 53162
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

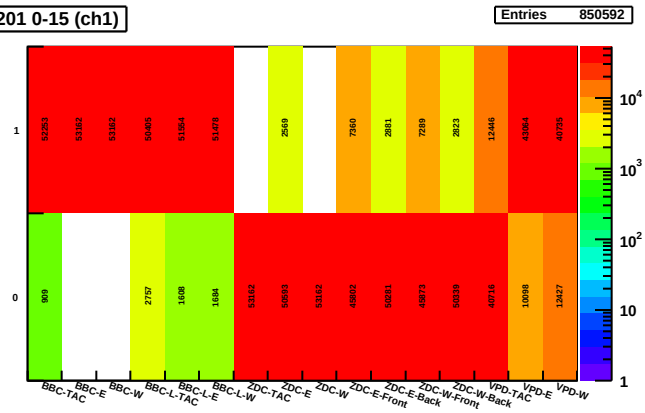
TF201 0-15 (ch0)



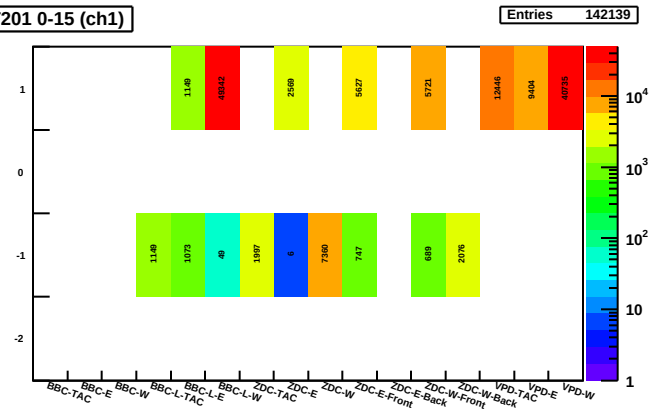
TF201 0-15 (ch0)



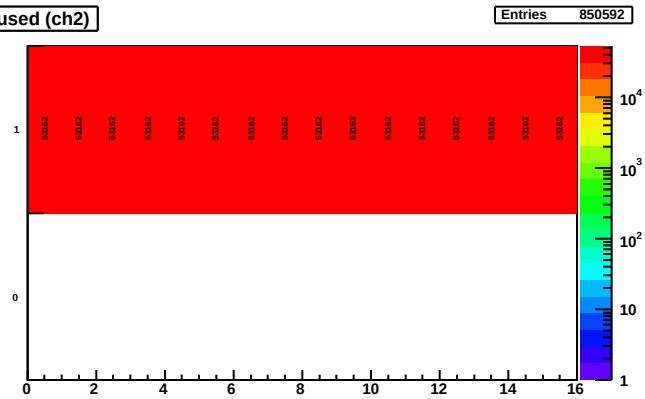
VT201 0-15 (ch1)

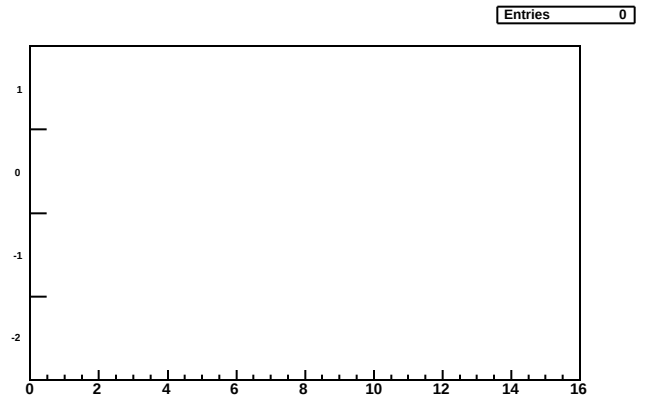


VT201 0-15 (ch1)



Unused (ch2)





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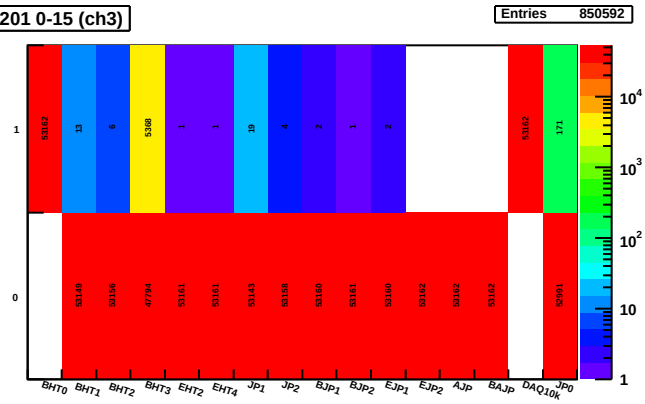

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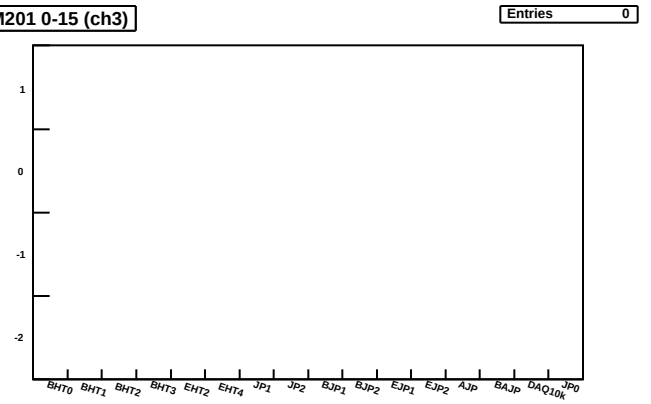
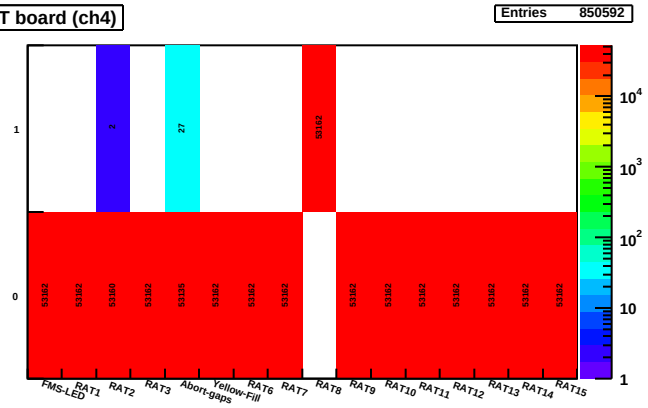
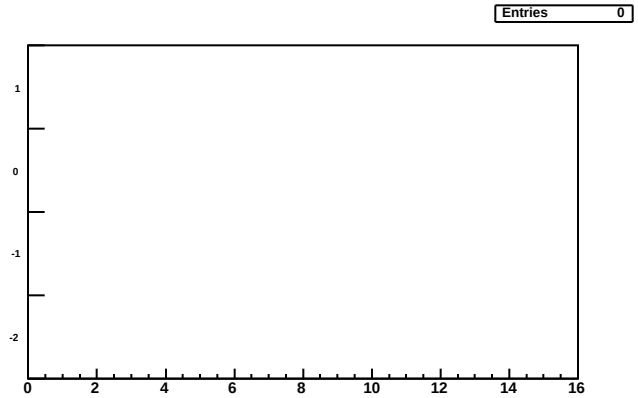


RAT board (ch4)





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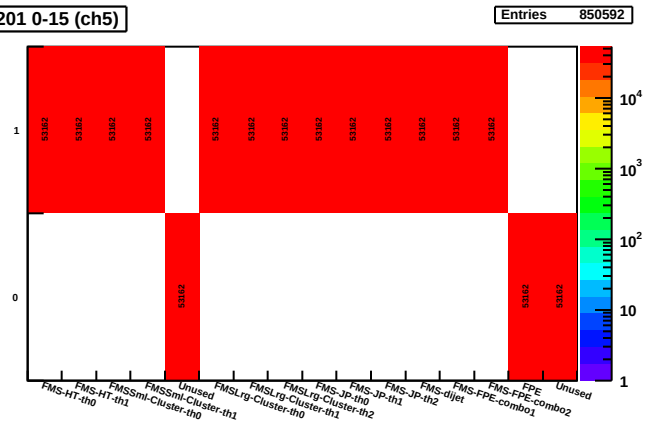

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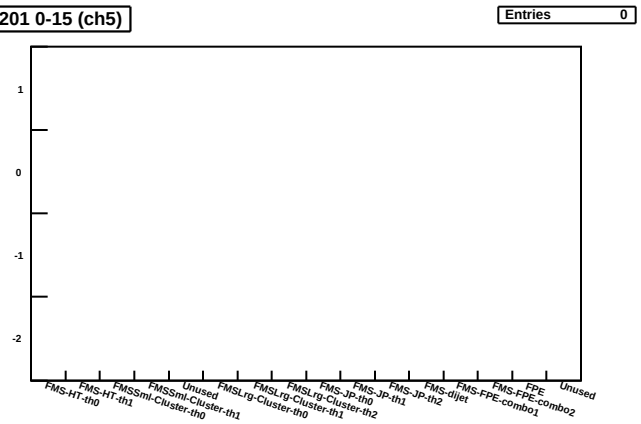

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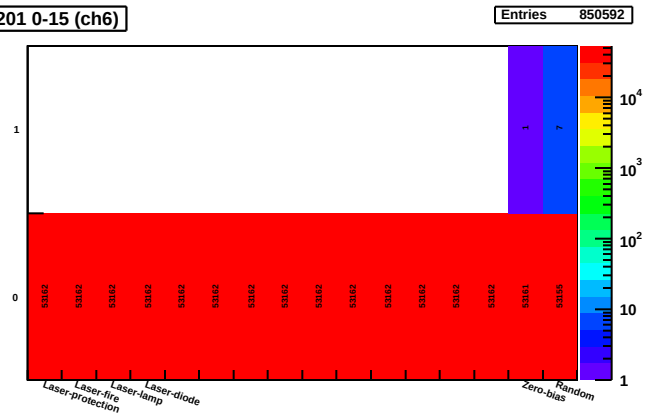

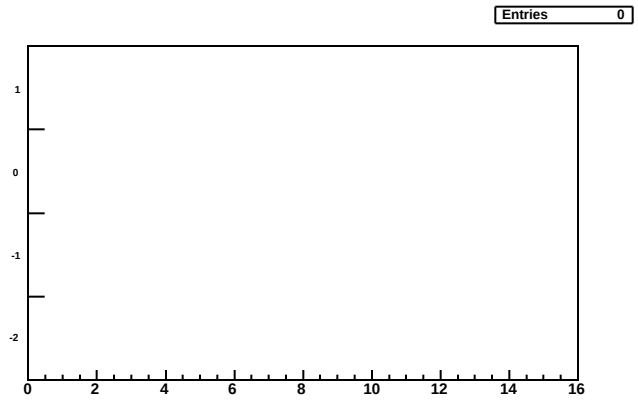
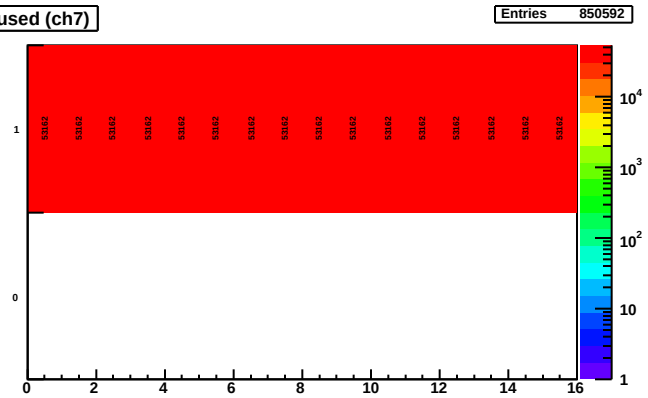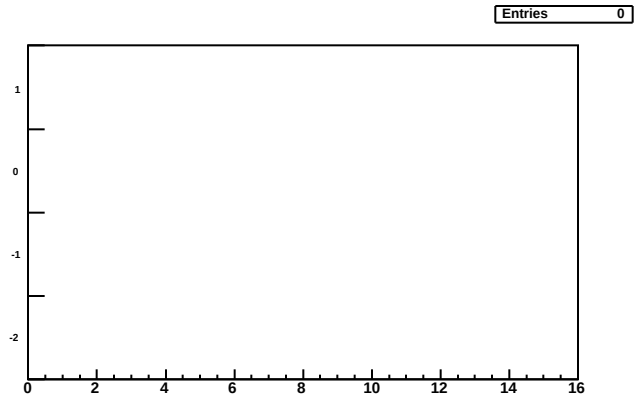
Unused (ch7)