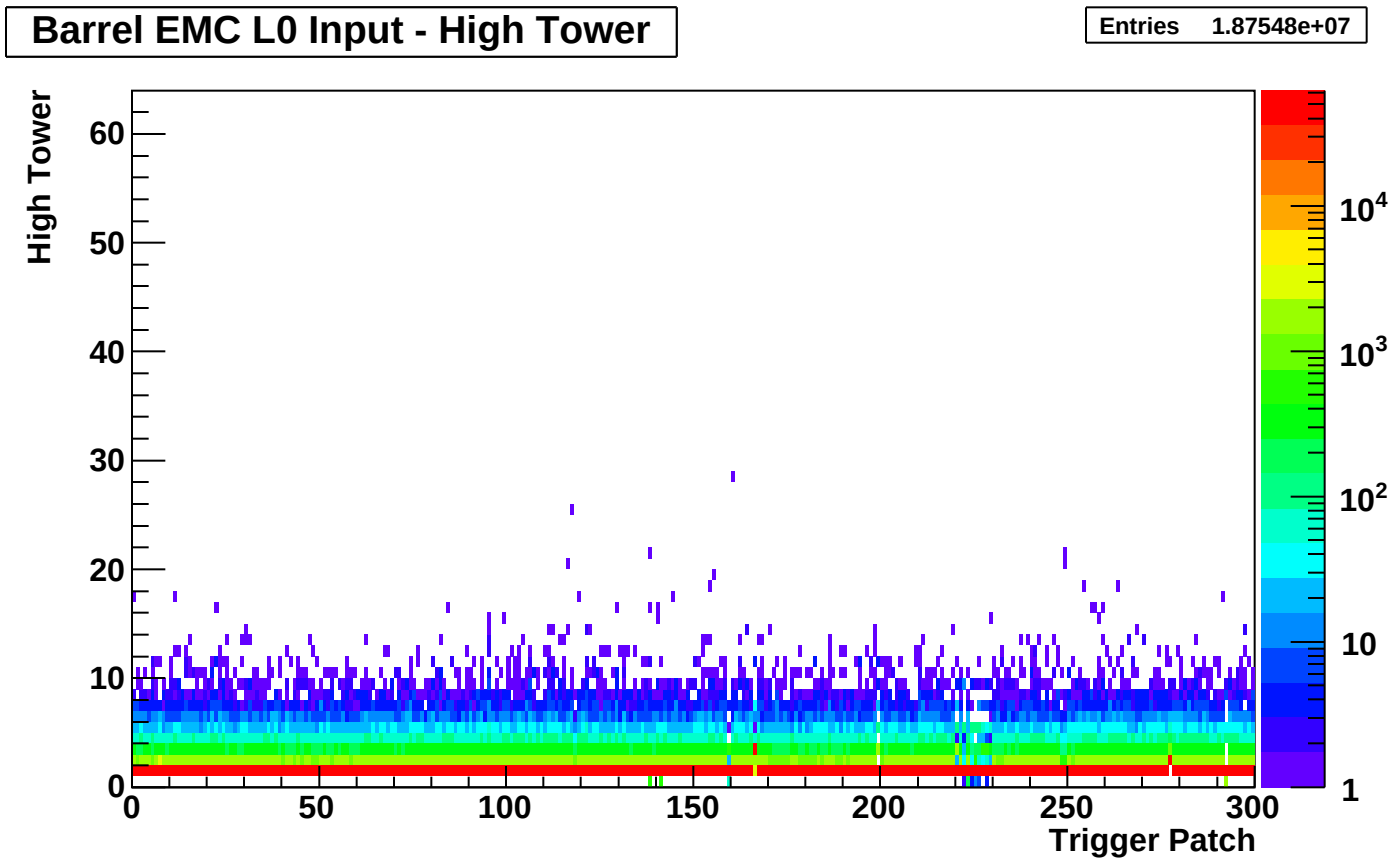
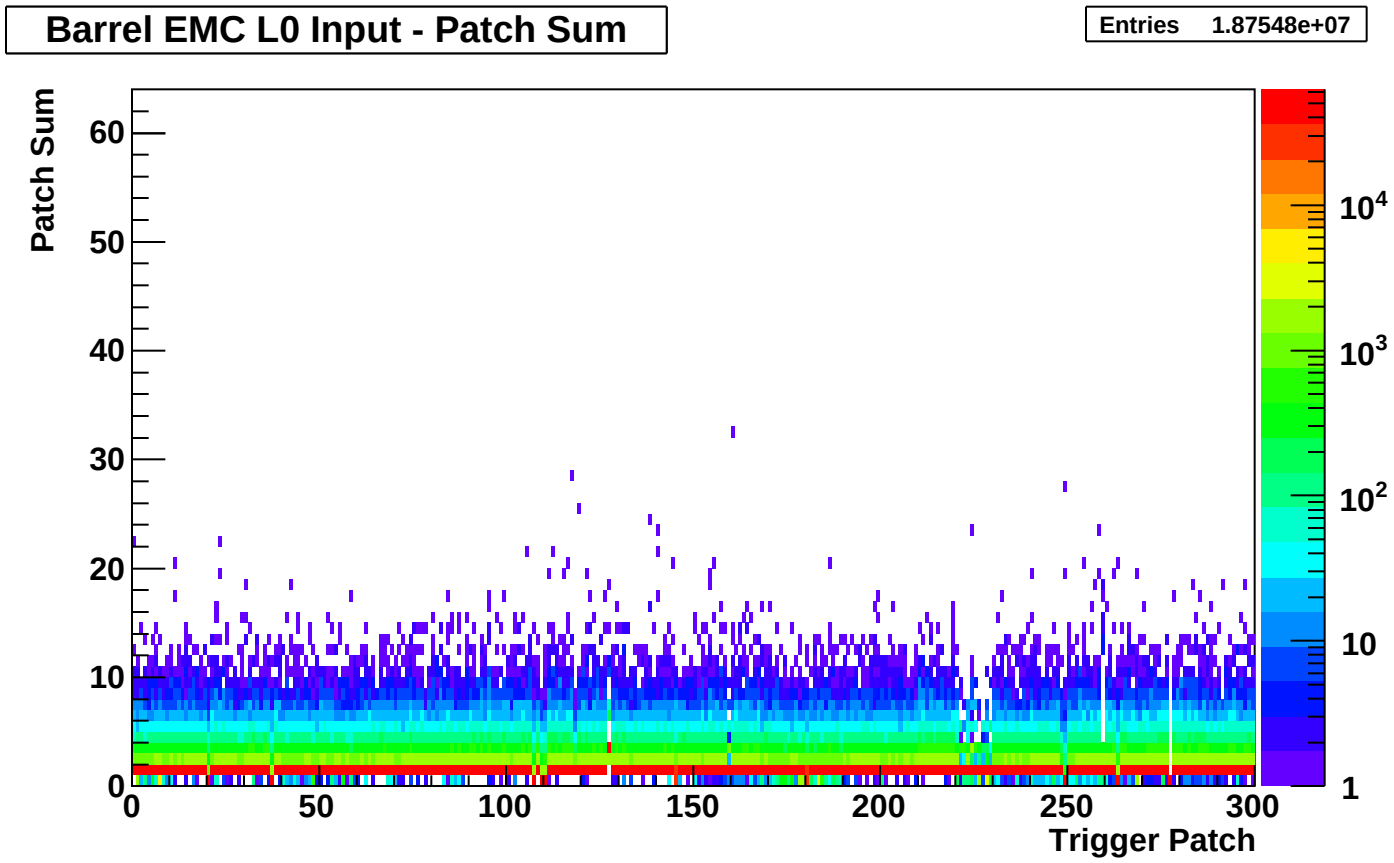
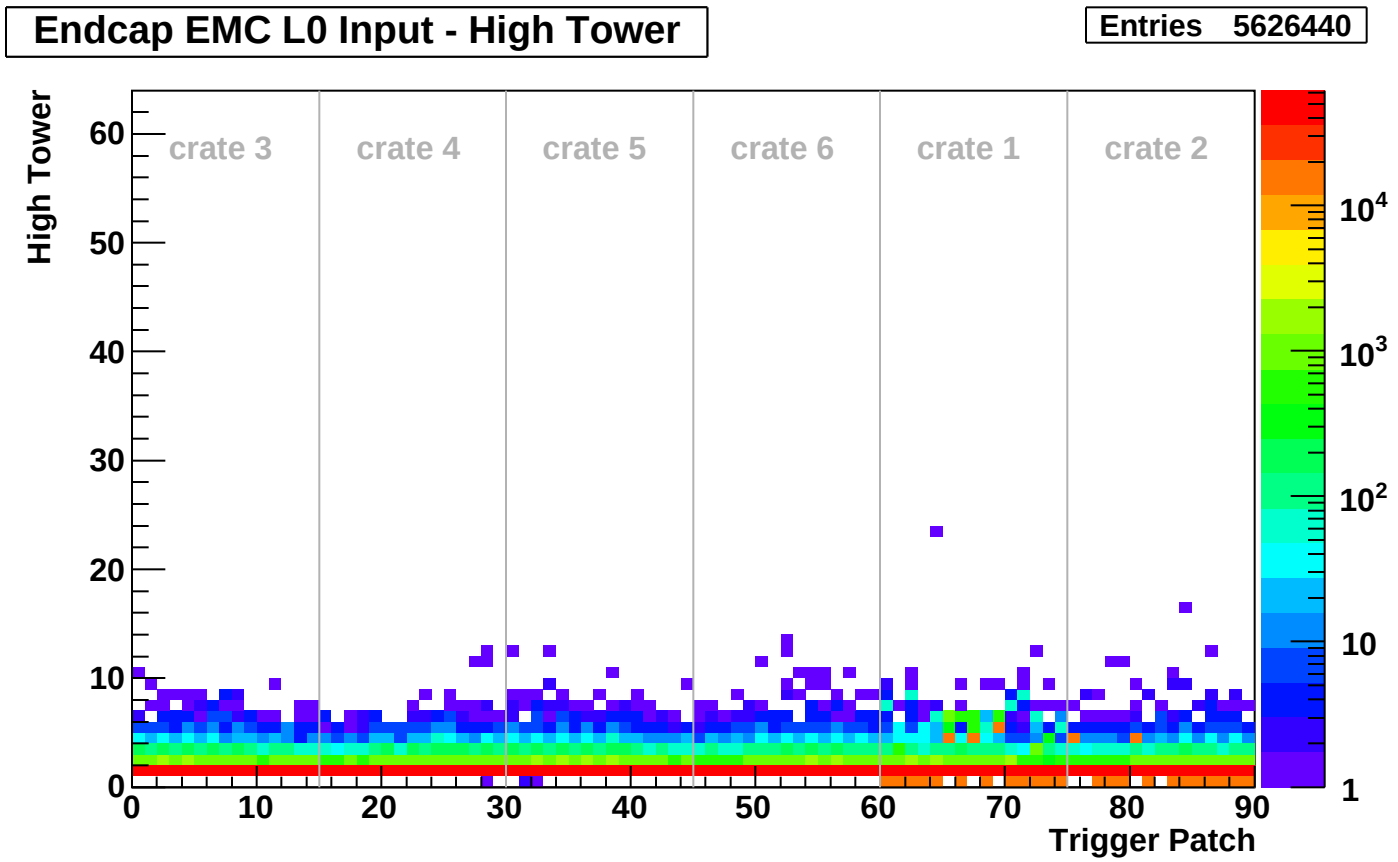
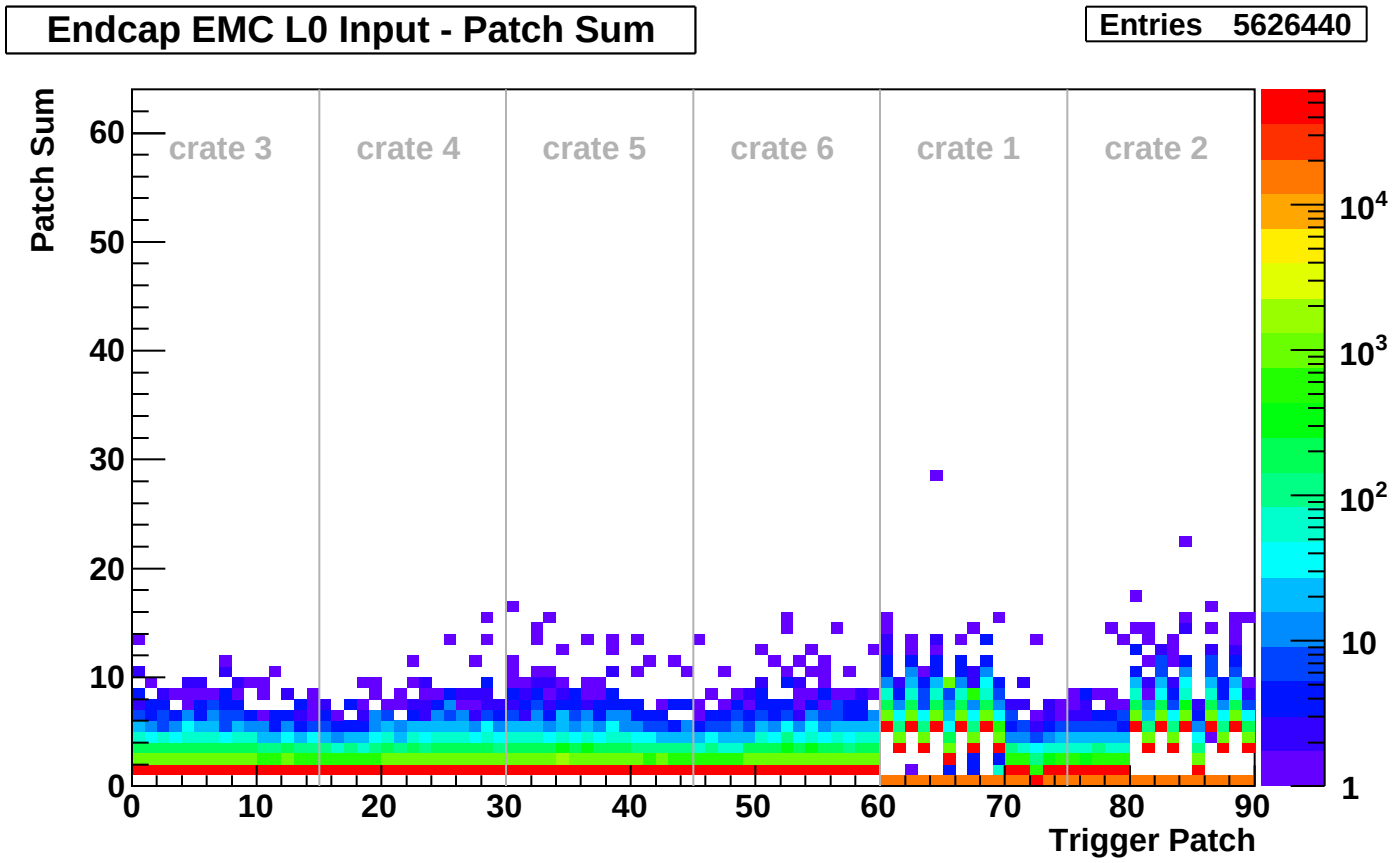
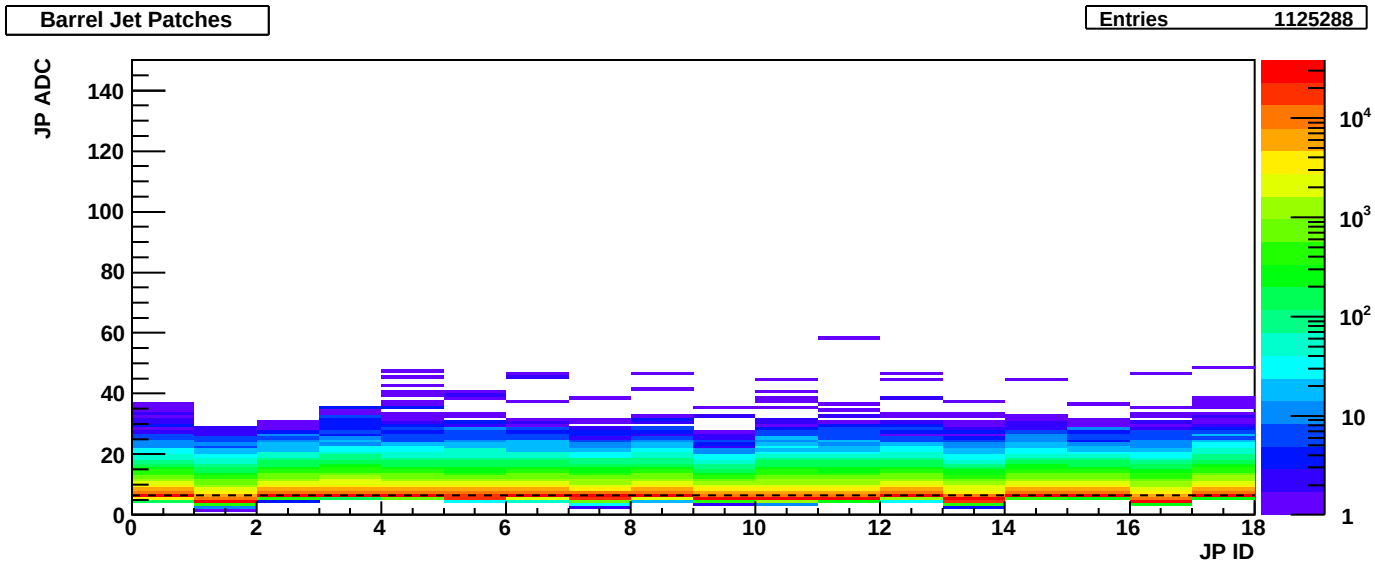
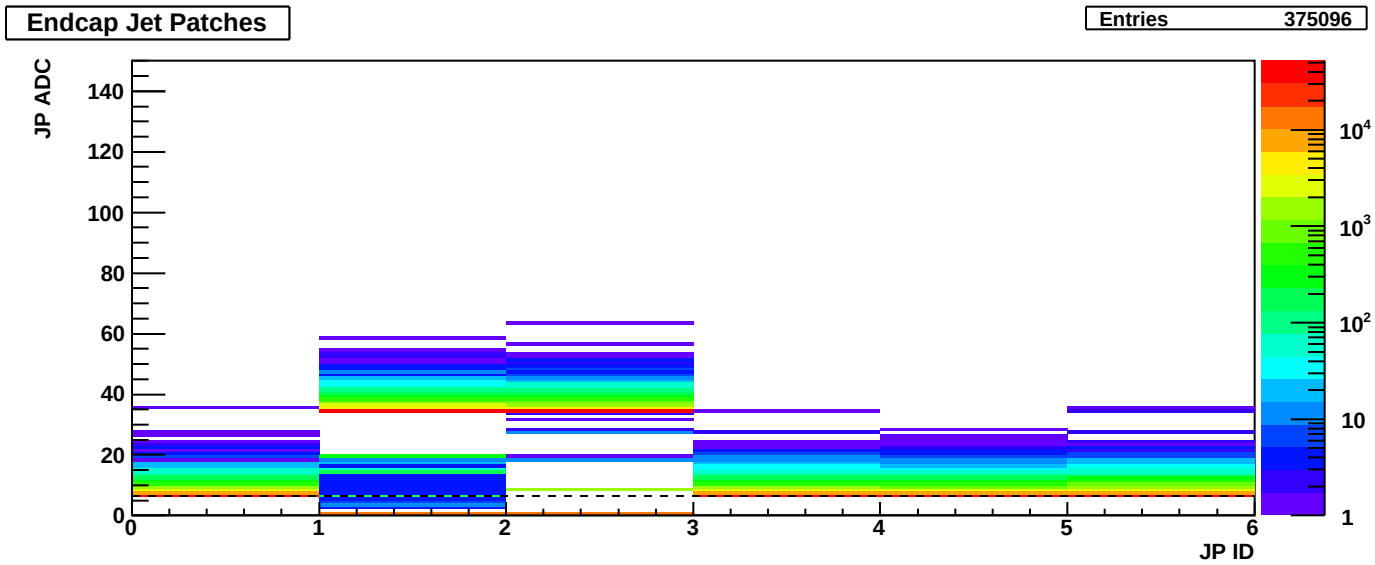

Barrel EMC L0 Input - High Tower
Entries 1.87548e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

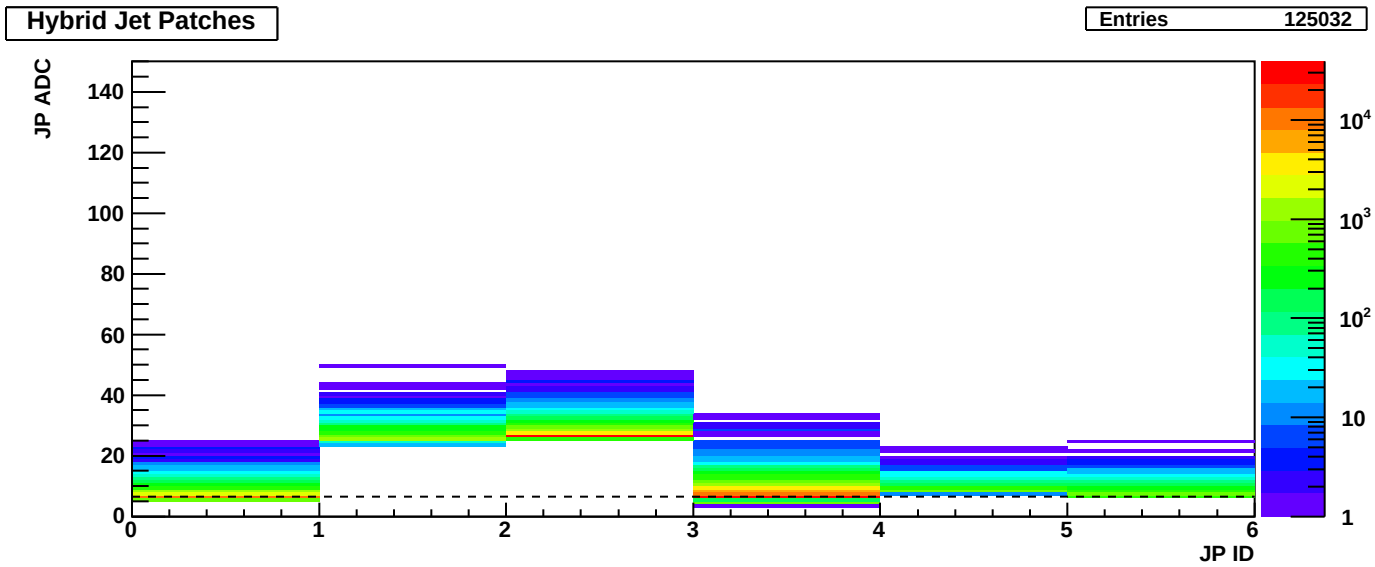

Barrel EMC L0 Input - Patch Sum
Entries 1.87548e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

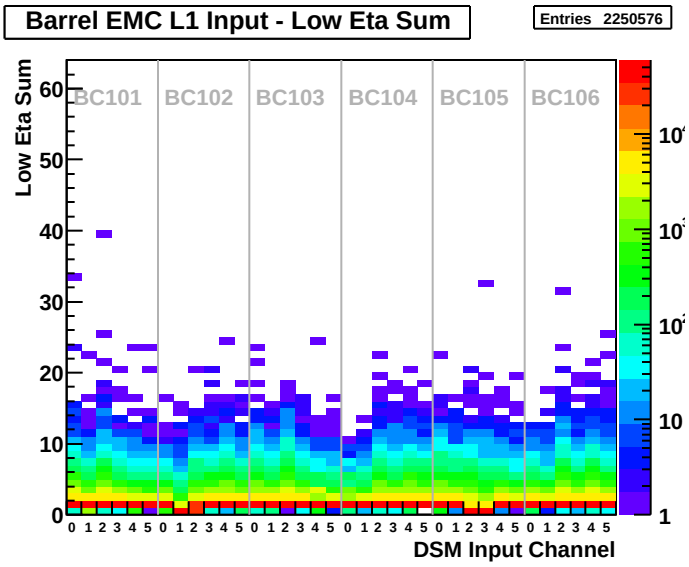

Endcap EMC L0 Input - High Tower
Entries 5626440
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

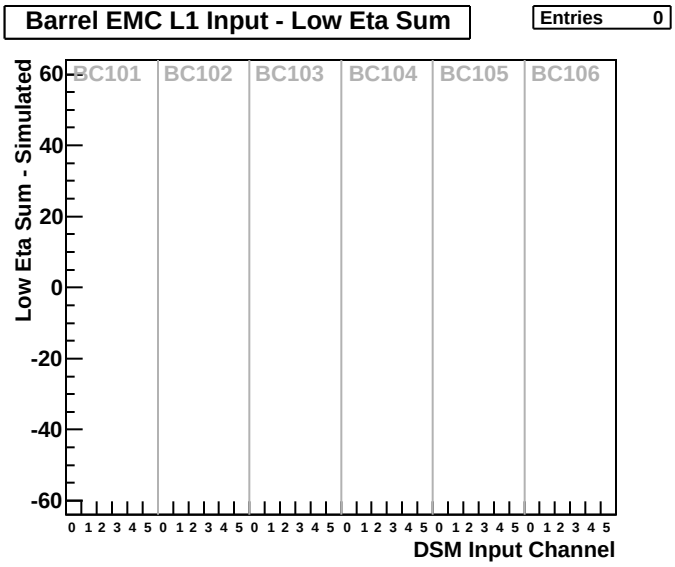

Endcap EMC L0 Input - Patch Sum
Entries 5626440
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

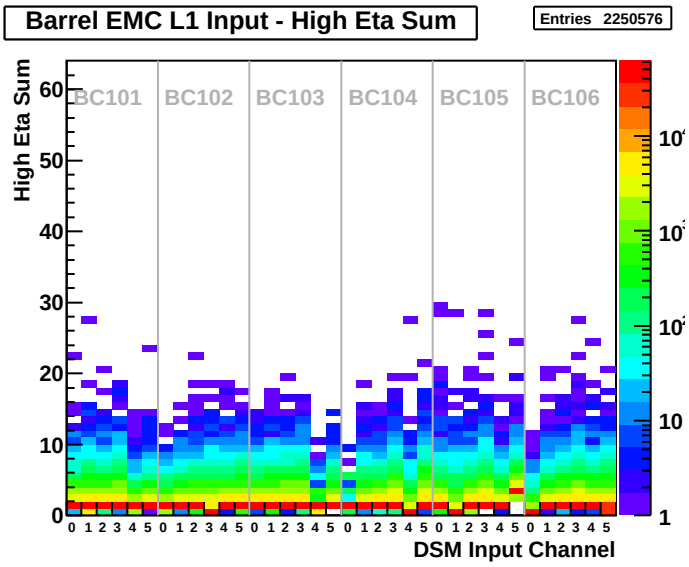

Barrel Jet Patches
Entries 1125288
JP ADC
JP ID

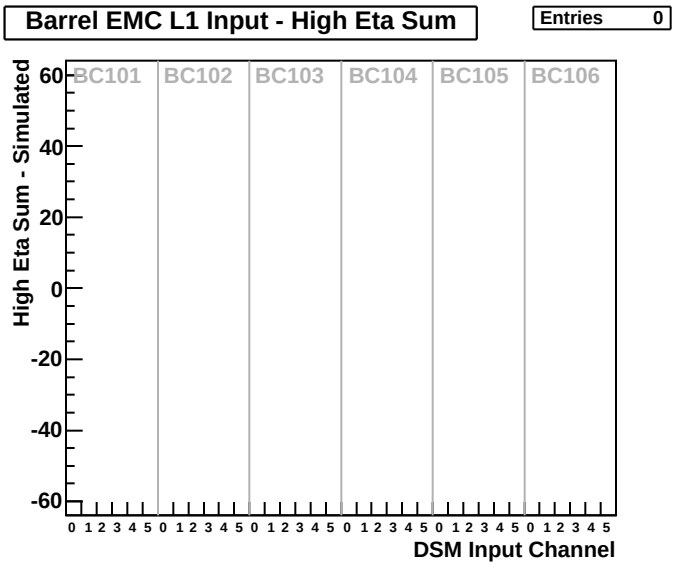

Endcap Jet Patches
Entries 375096
JP ADC
JP ID

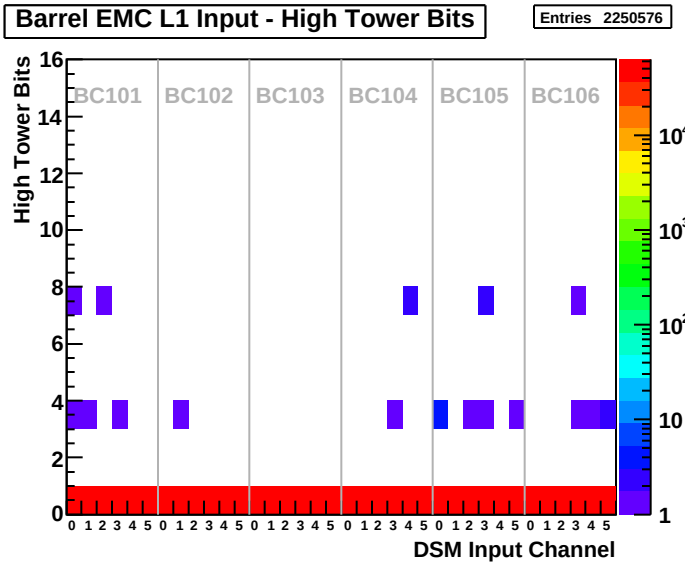

Hybrid Jet Patches
Entries 125032
JP ADC
JP ID

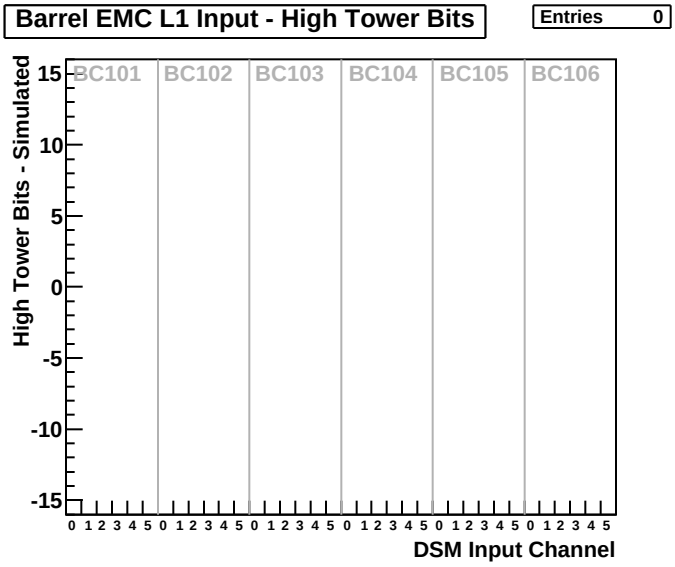

Barrel EMC L1 Input - Low Eta Sum
Entries 2250576
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

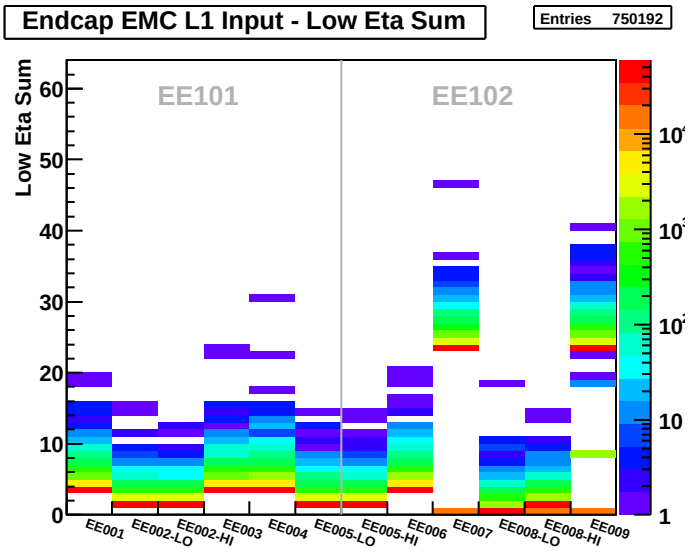

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

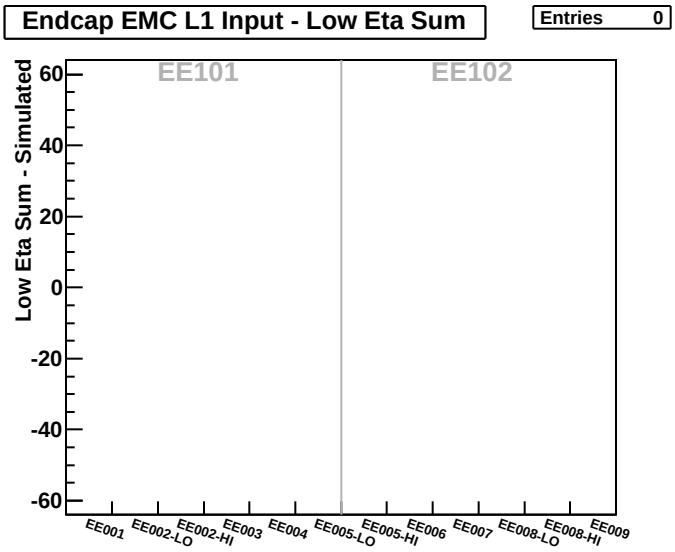

Barrel EMC L1 Input - High Eta Sum
Entries 2250576
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

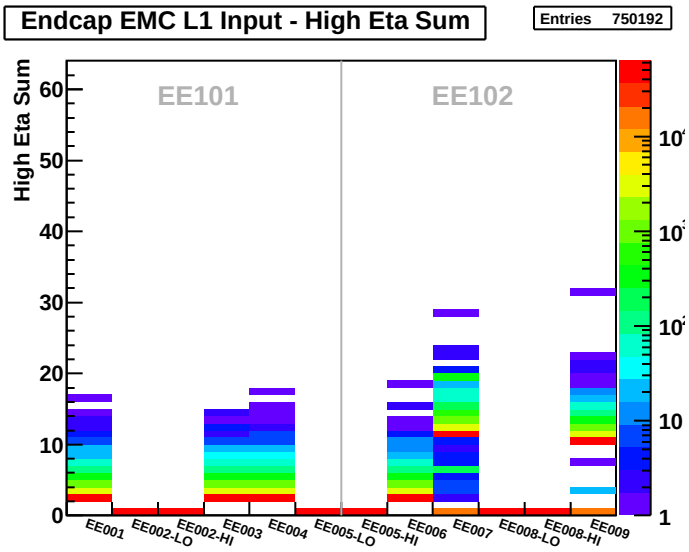

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

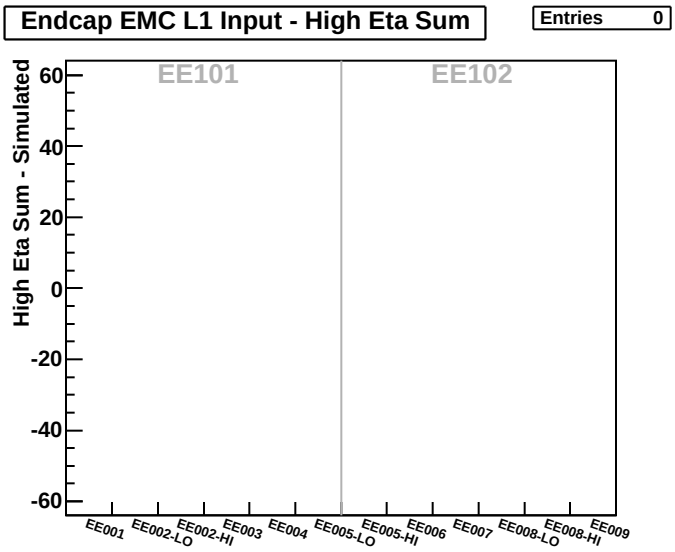

Barrel EMC L1 Input - High Tower Bits
Entries 2250576
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

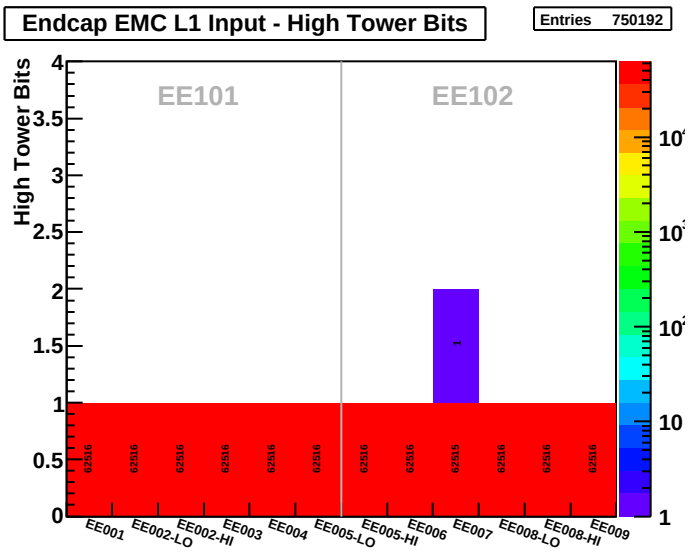

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

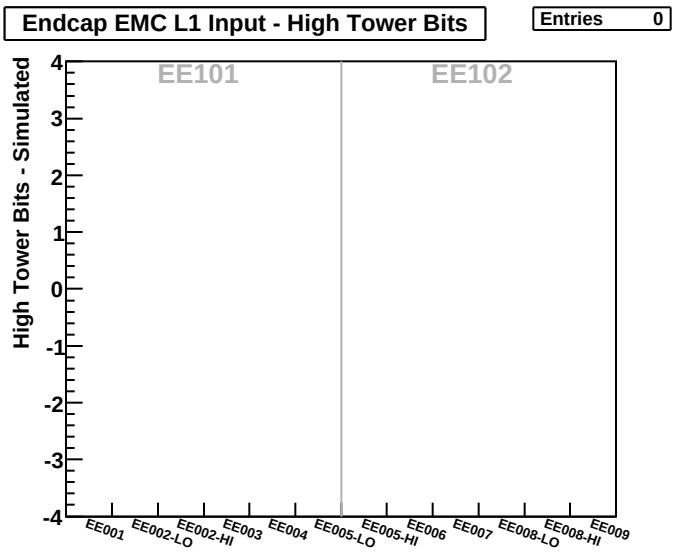

Endcap EMC L1 Input - Low Eta Sum
Entries 750192
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

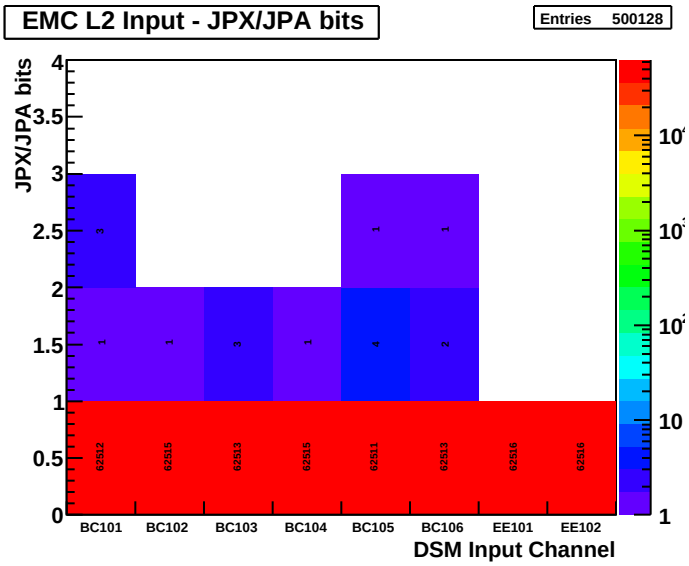

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

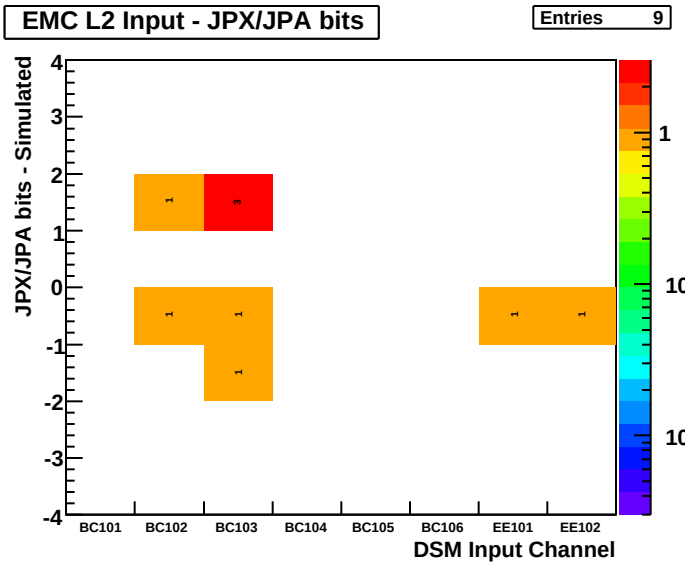

Endcap EMC L1 Input - High Eta Sum
Entries 750192
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

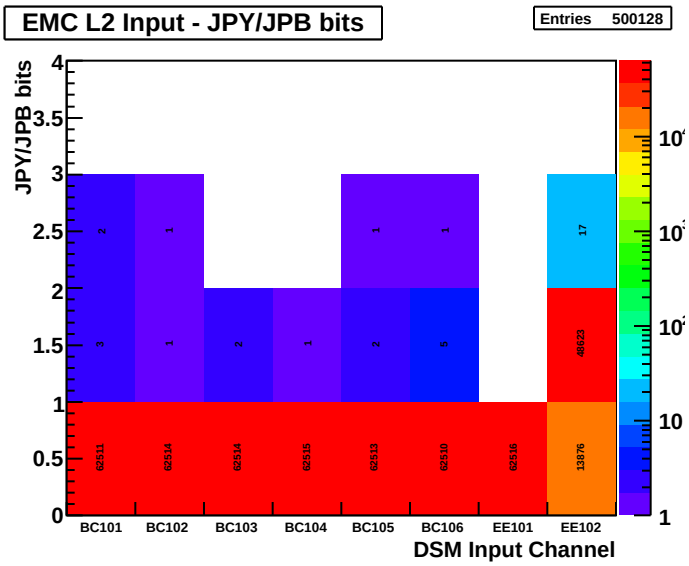

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

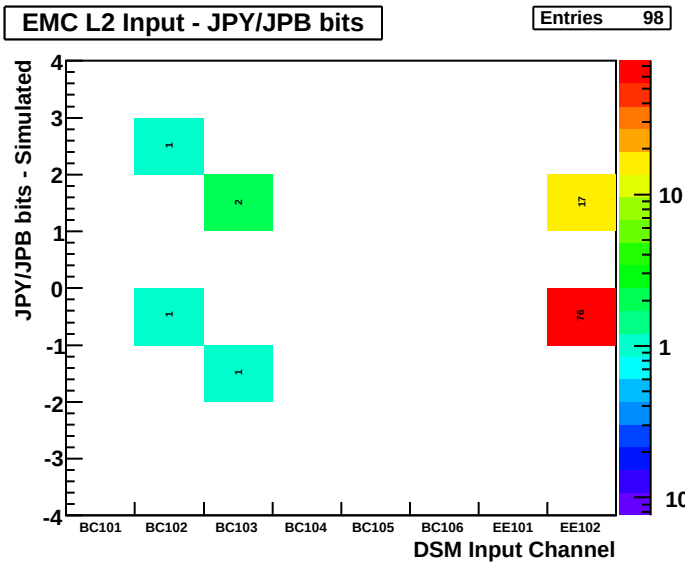

Endcap EMC L1 Input - High Tower Bits
Entries 750192
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

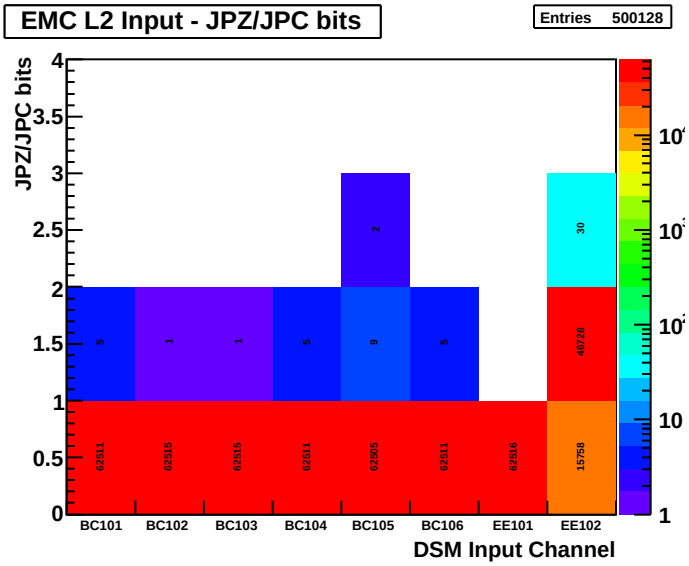

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

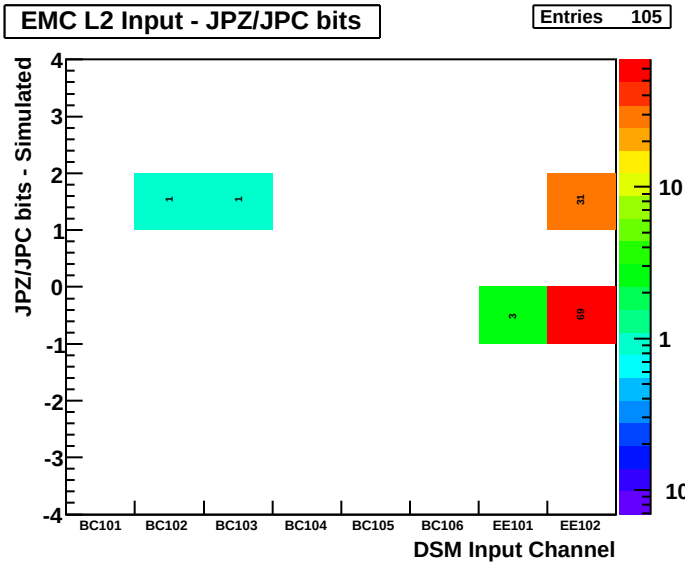

EMC L2 Input - JPX/JPA bits
Entries 500128
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

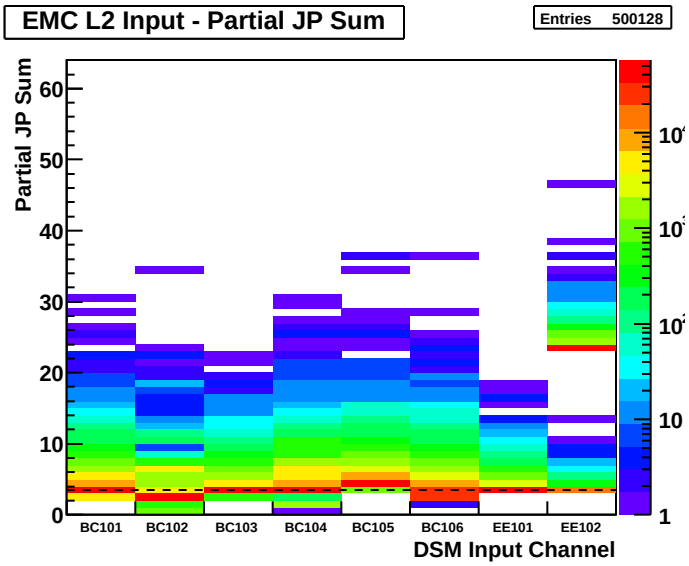

EMC L2 Input - JPX/JPA bits
Entries 9
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

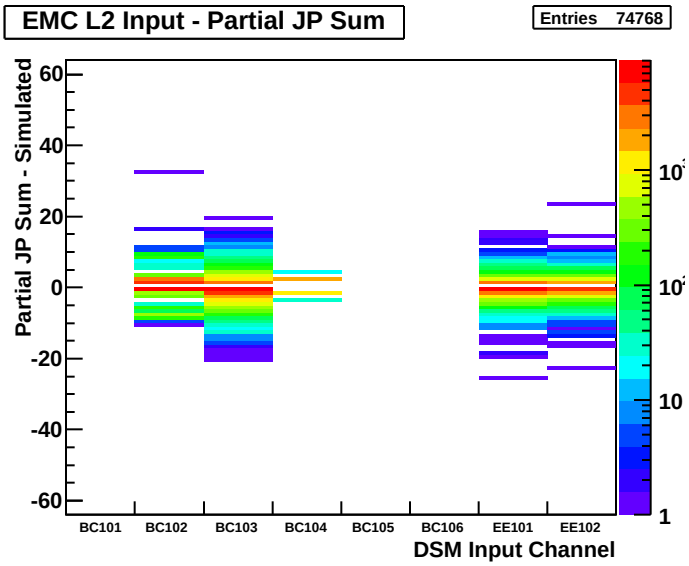

EMC L2 Input - JPY/JPB bits
Entries 500128
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

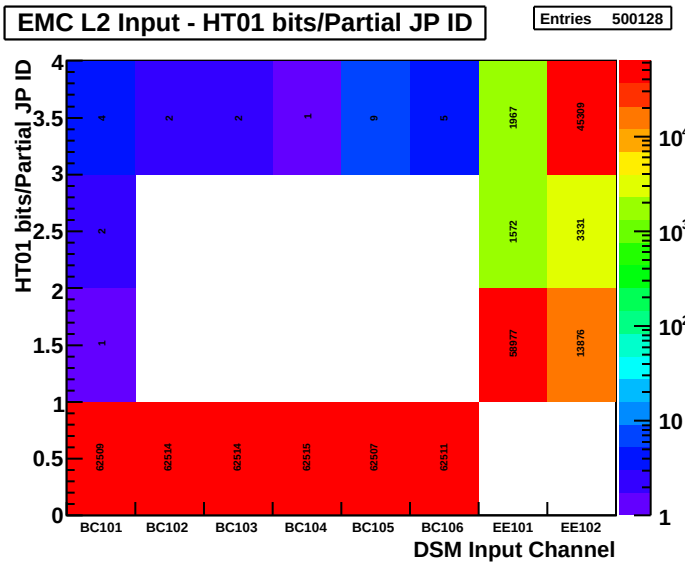

EMC L2 Input - JPY/JPB bits
Entries 98
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

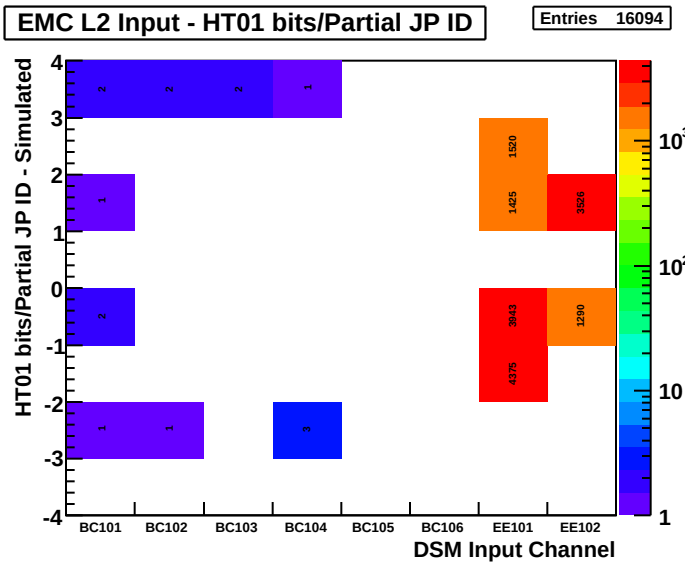

EMC L2 Input - JPZ/JPC bits
Entries 500128
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

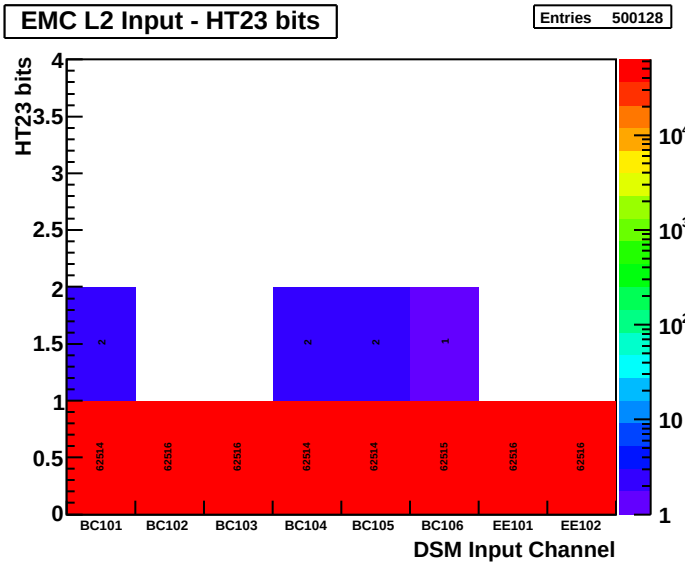

EMC L2 Input - JPZ/JPC bits
Entries 105
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

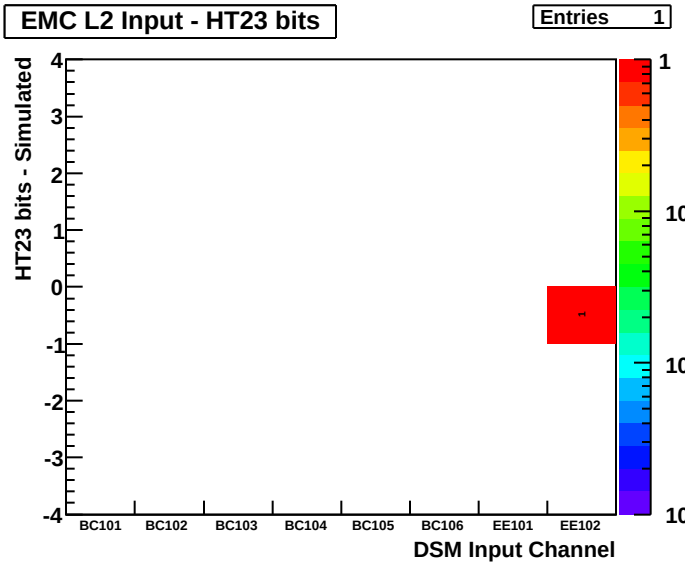

EMC L2 Input - Partial JP Sum
Entries 500128
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

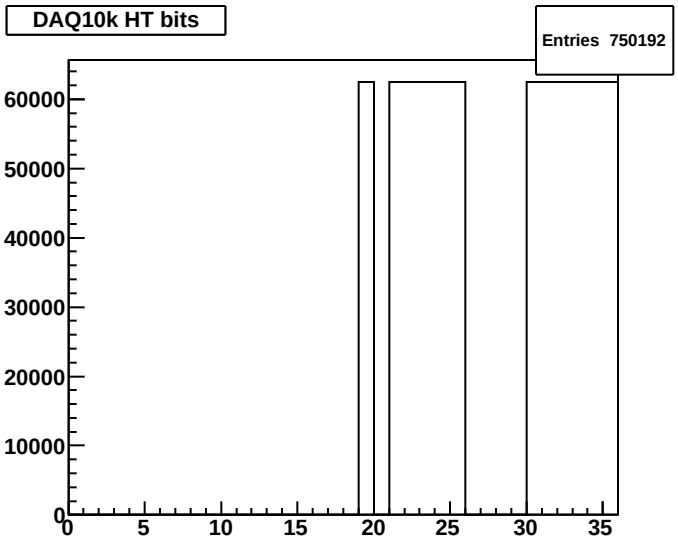

EMC L2 Input - Partial JP Sum
Entries 74768
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

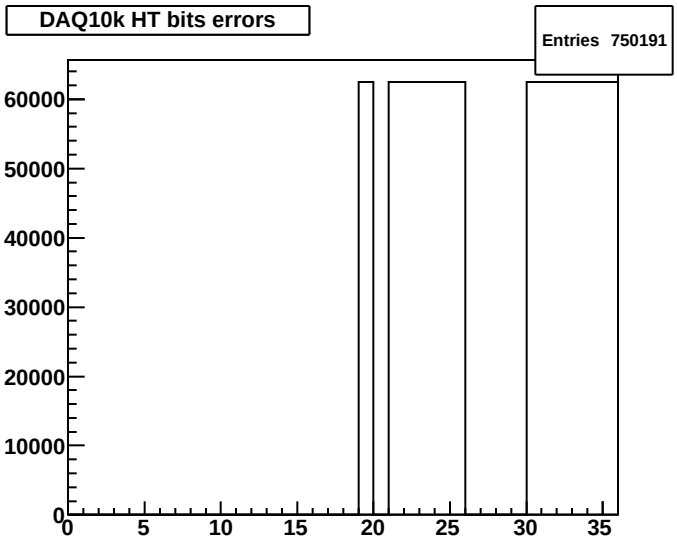

EMC L2 Input - HT01 bits/Partial JP ID
Entries 500128
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

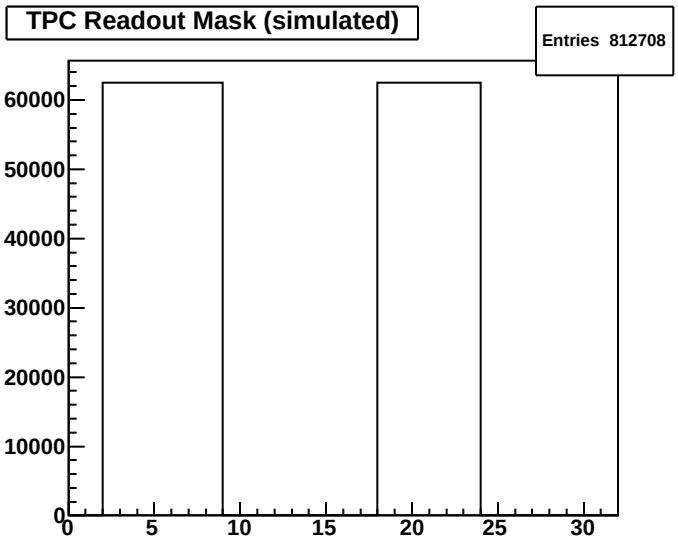

EMC L2 Input - HT01 bits/Partial JP ID
Entries 16094
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

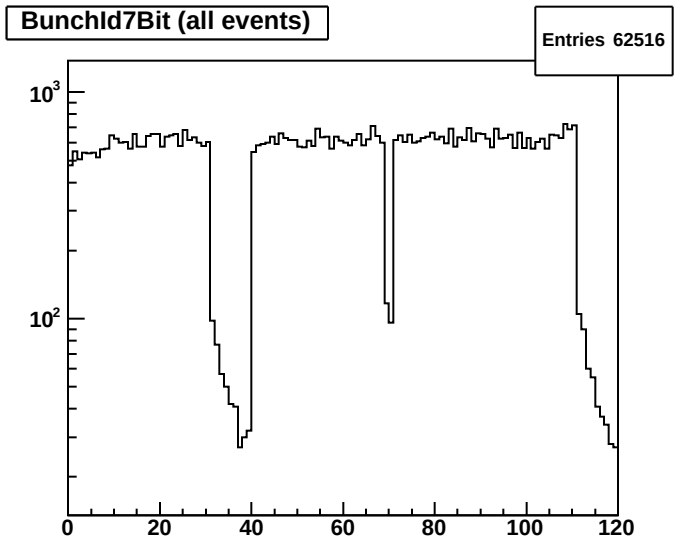

EMC L2 Input - HT23 bits
Entries 500128
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

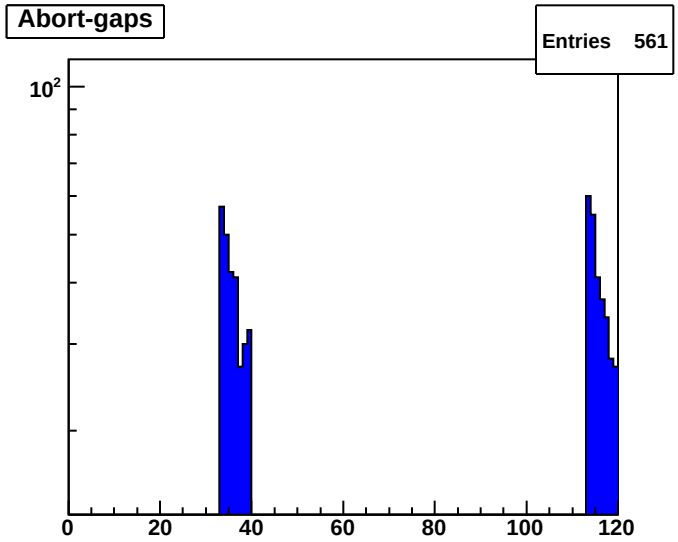

EMC L2 Input - HT23 bits
Entries 1
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

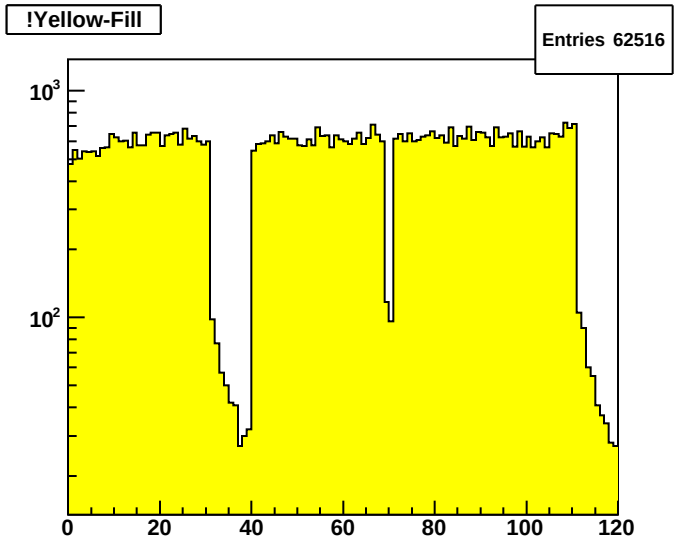

DAQ10k HT bits
Entries 750192
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

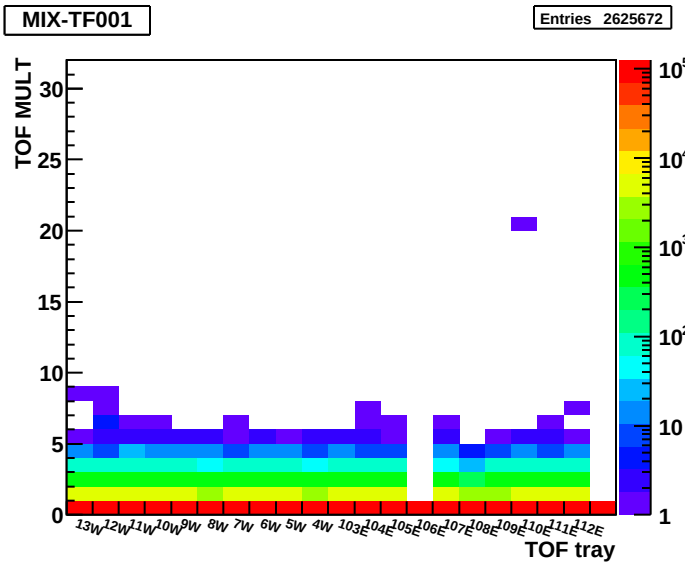

DAQ10k HT bits errors
Entries 750191
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

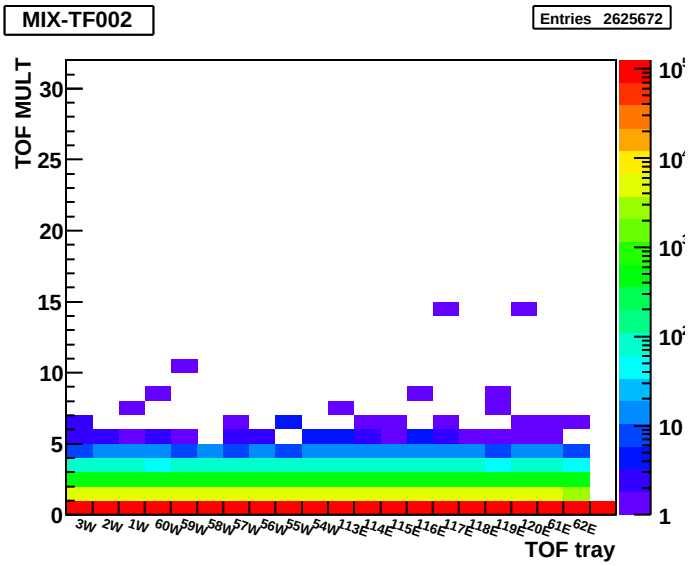

TPC Readout Mask (simulated)
Entries 812708
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

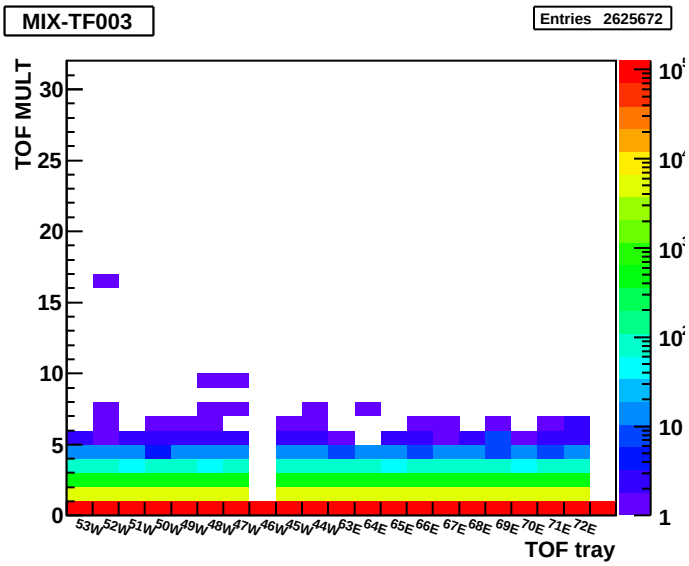

BunchId7Bit (all events)
Entries 62516
10^3
10^2
0 20 40 60 80 100 120

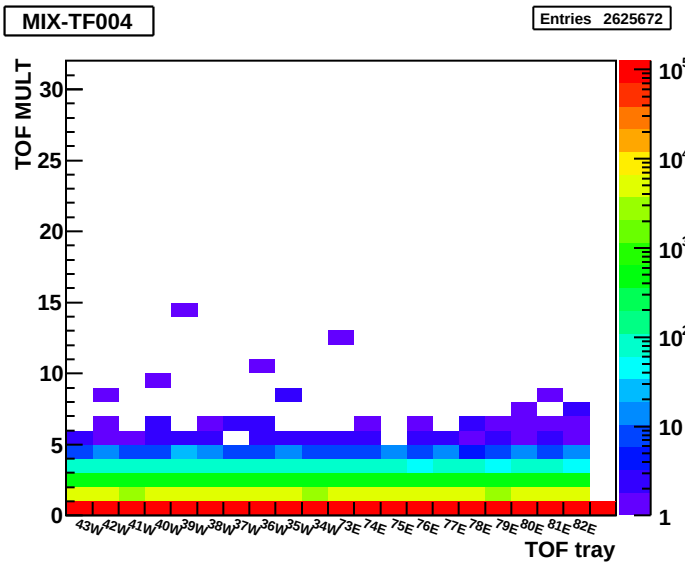

Abort-gaps
Entries 561
10^2
0 20 40 60 80 100 120

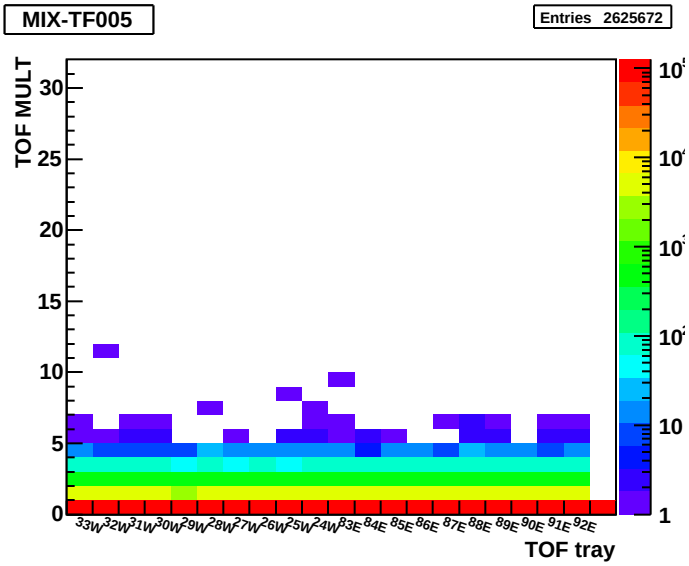

!Yellow-Fill
Entries 62516
10^3
10^2
0 20 40 60 80 100 120

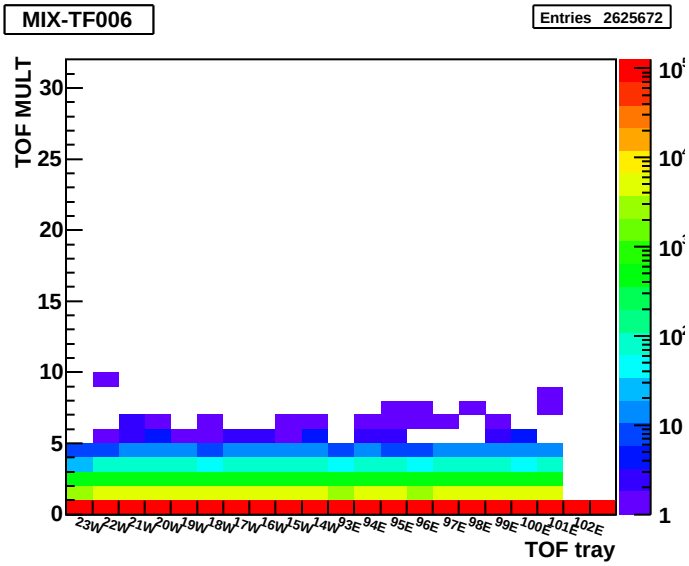

MIX-TF001
Entries 2625672
TOF MULT
TOF tray

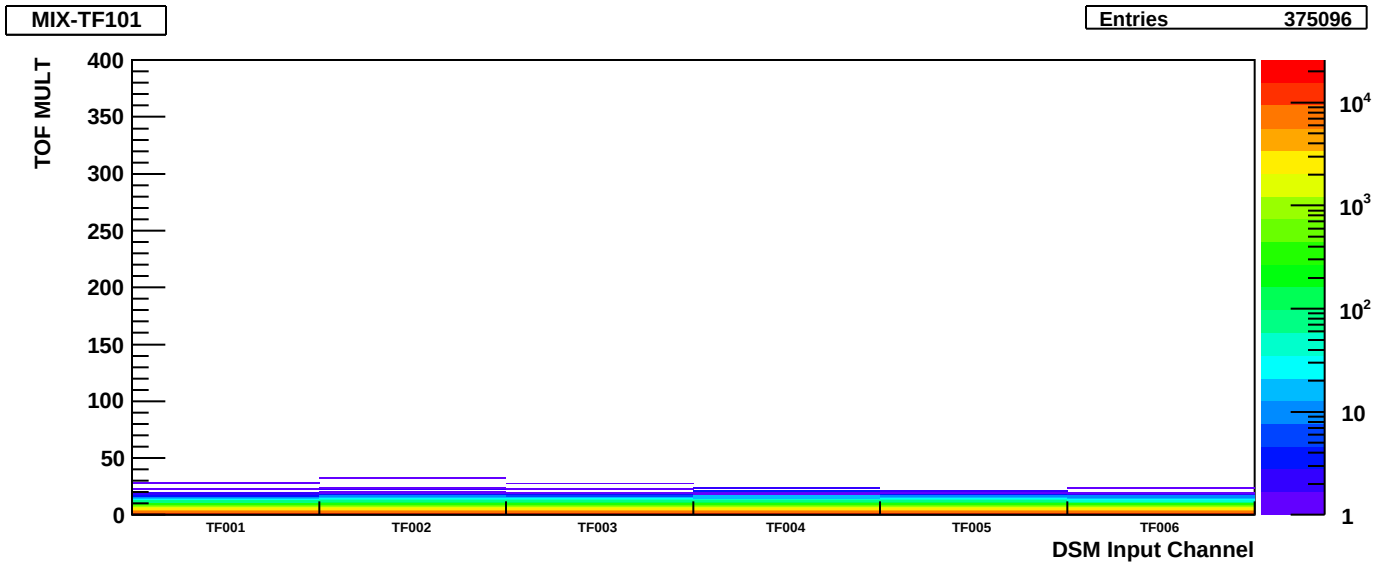

MIX-TF002
Entries 2625672
TOF MULT
TOF tray

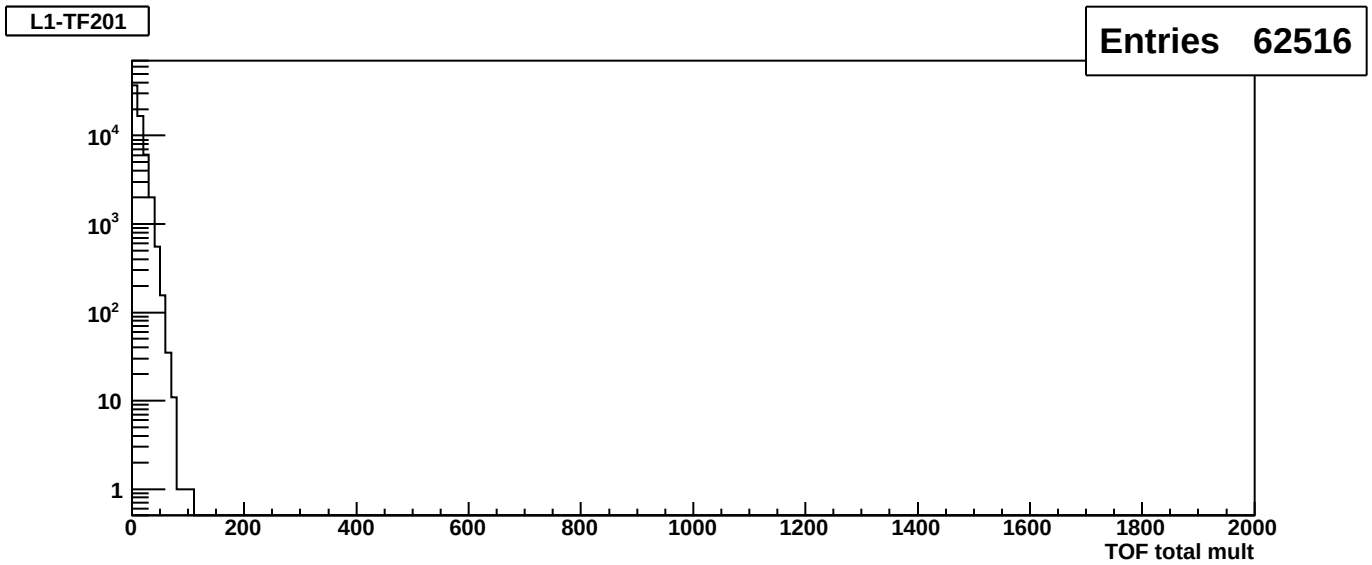

MIX-TF003
Entries 2625672
TOF MULT
TOF tray

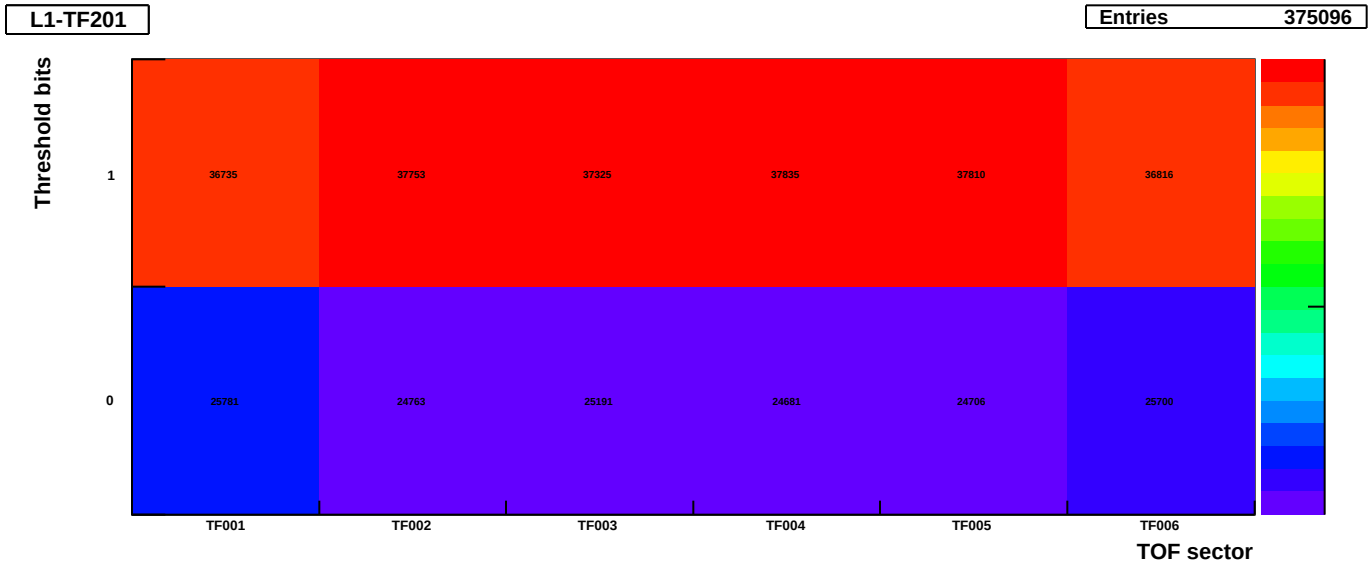

MIX-TF004
Entries 2625672
TOF MULT
TOF tray

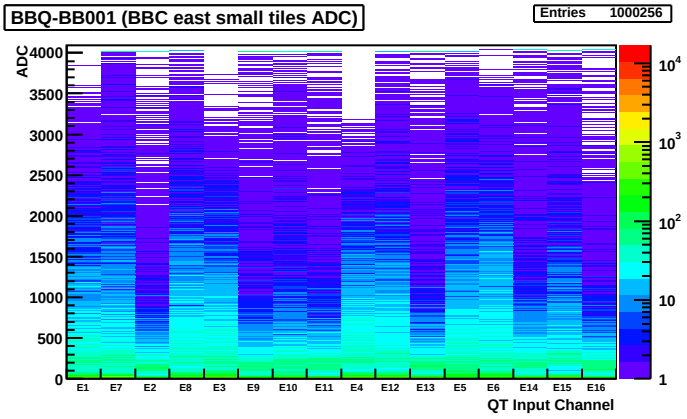

MIX-TF005
Entries 2625672
TOF MULT
TOF tray

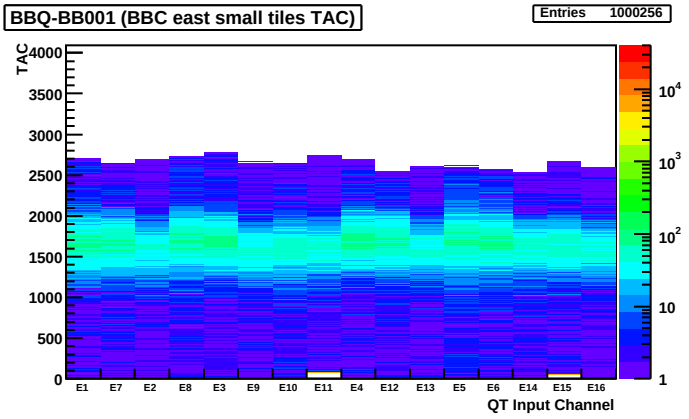

MIX-TF006
Entries 2625672
TOF MULT
TOF tray

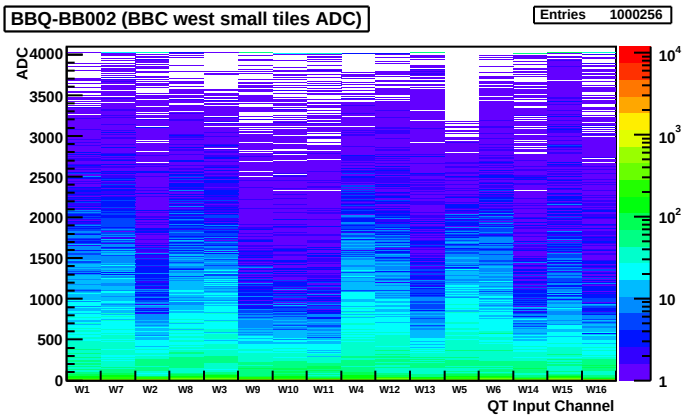

MIX-TF101
Entries 375096
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

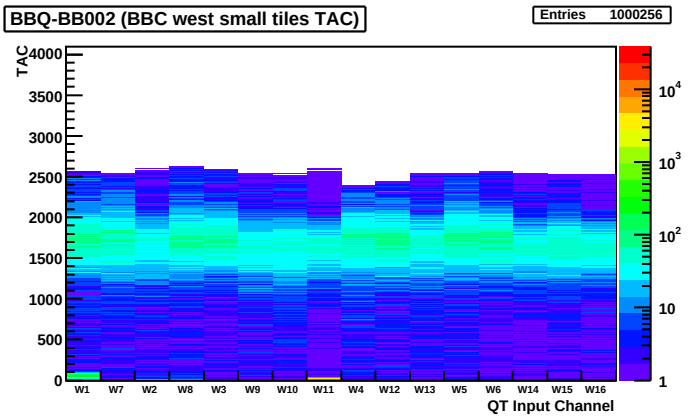

L1-TF201
Entries 62516
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

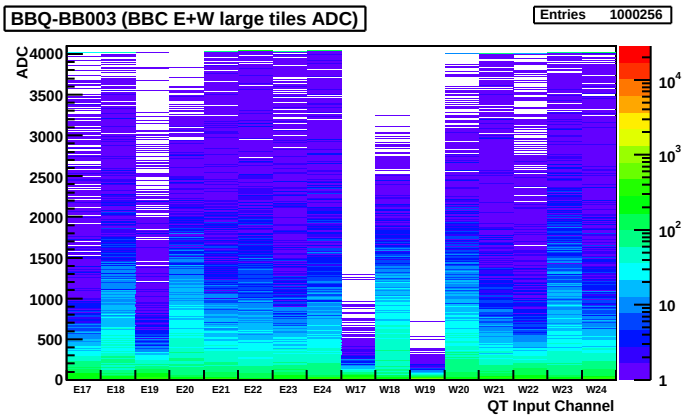

L1-TF201
Entries 375096
Threshold bits
1
0
36735
37753
37325
37835
37810
36816
25781
24763
25191
24681
24706
25700
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

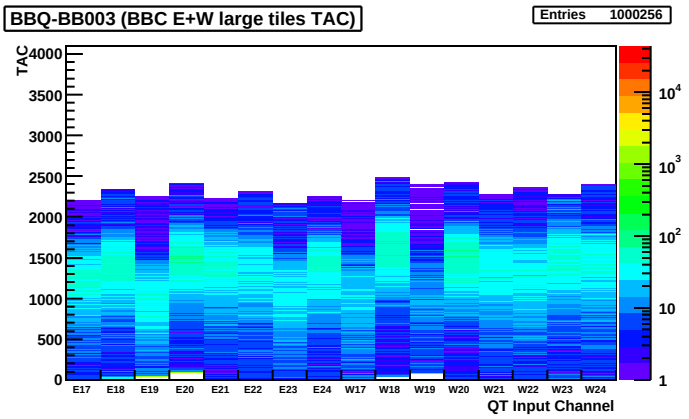

BBQ-BB001 (BBC east small tiles ADC)
Entries 1000256
ADC
QT Input Channel

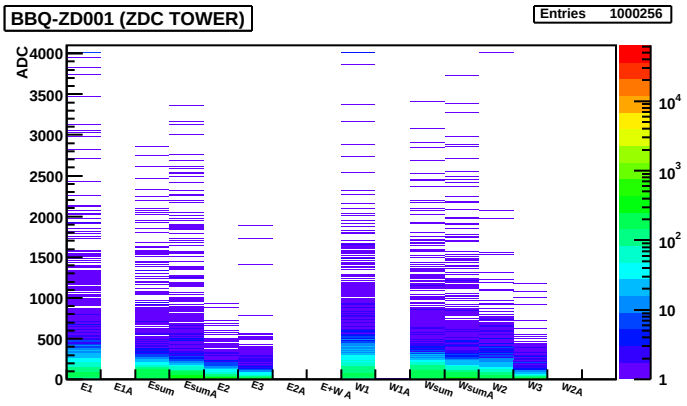

BBQ-BB001 (BBC east small tiles TAC)
Entries 1000256
TAC
QT Input Channel

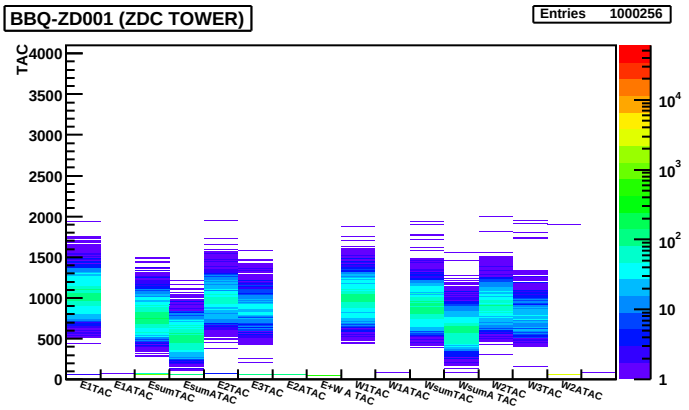

BBQ-BB002 (BBC west small tiles ADC)
Entries 1000256
ADC
QT Input Channel

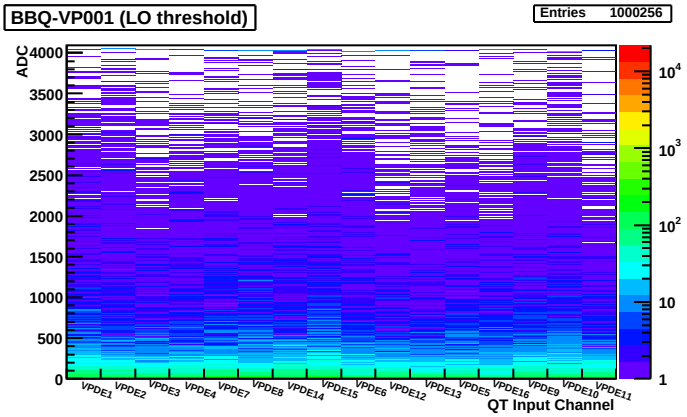

BBQ-BB002 (BBC west small tiles TAC)
Entries 1000256
TAC
QT Input Channel

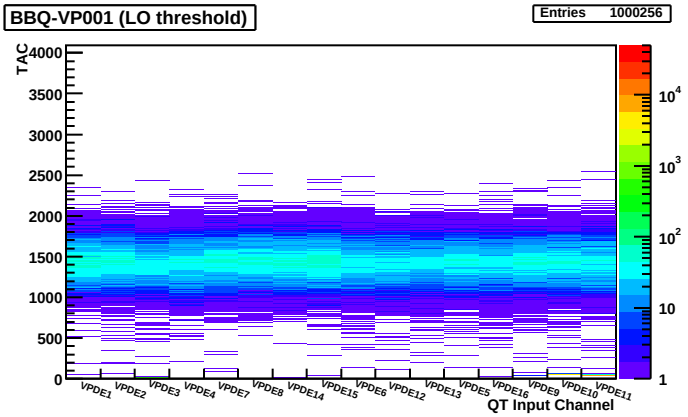

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1000256
ADC
QT Input Channel

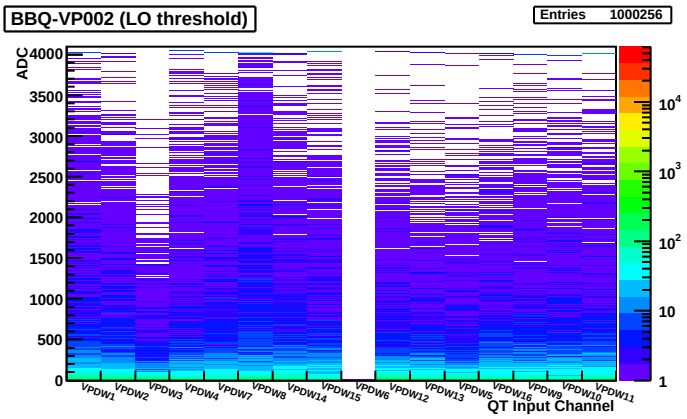

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1000256
TAC
QT Input Channel

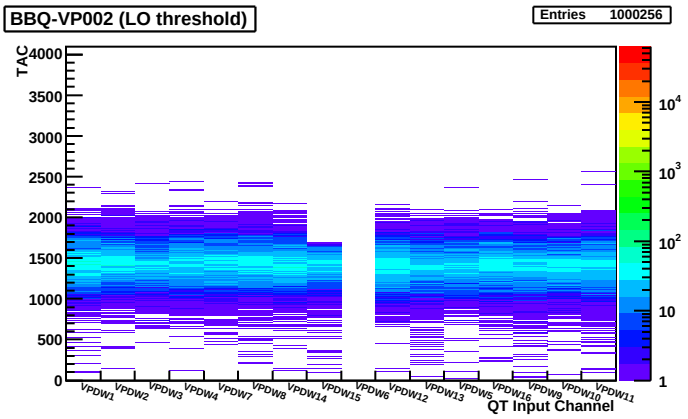

BBQ-ZD001 (ZDC TOWER)
Entries 1000256
ADC

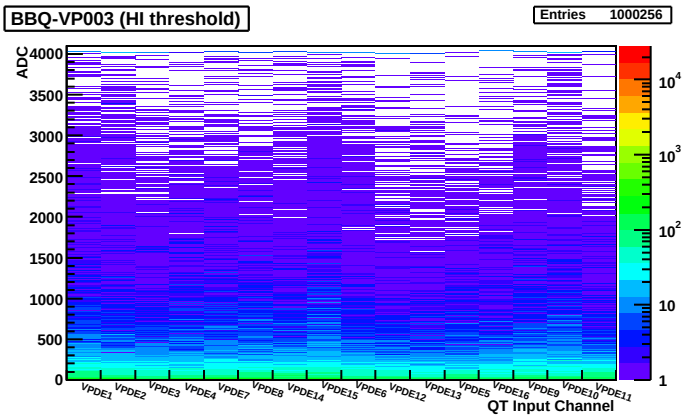

BBQ-ZD001 (ZDC TOWER)
Entries 1000256
TAC

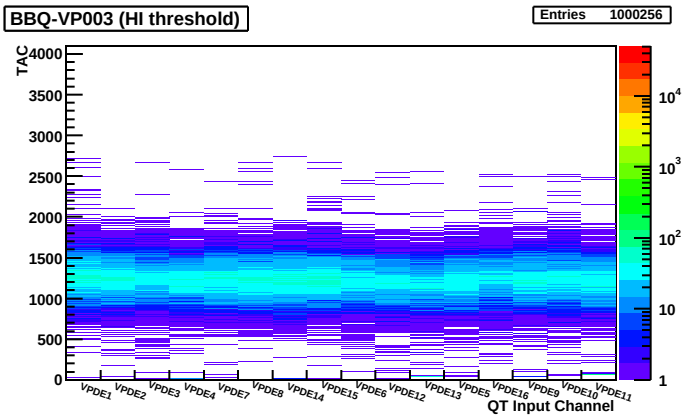

BBQ-VP001 (LO threshold)
Entries 1000256
ADC
QT Input Channel

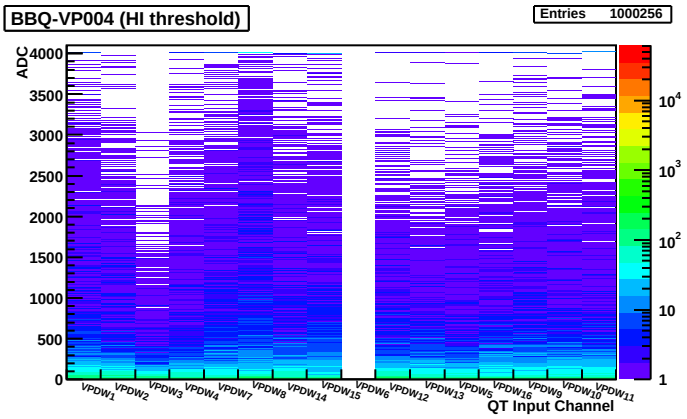

BBQ-VP001 (LO threshold)
Entries 1000256
TAC
QT Input Channel

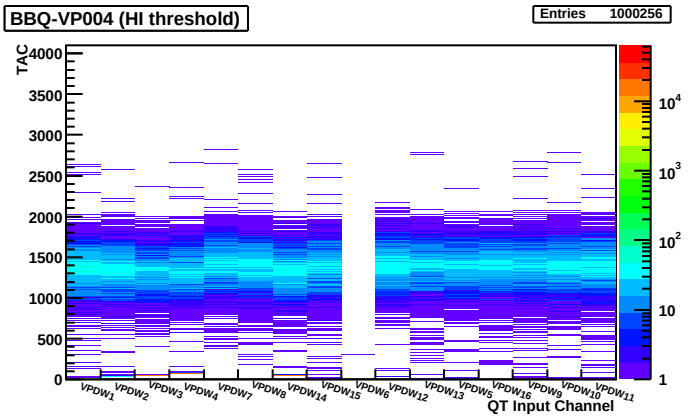

BBQ-VP002 (LO threshold)
Entries 1000256
ADC
QT Input Channel

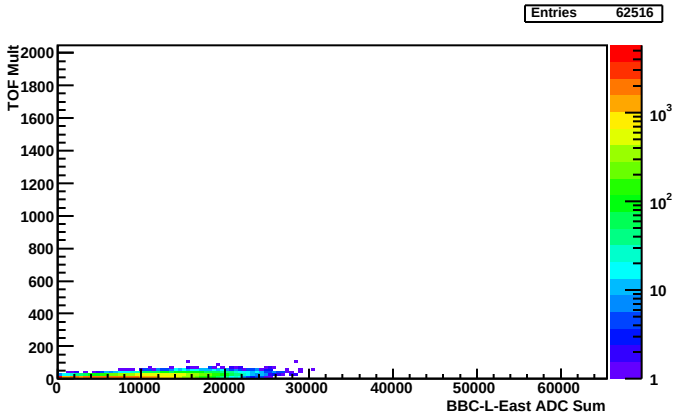

BBQ-VP002 (LO threshold)
Entries 1000256
TAC
QT Input Channel

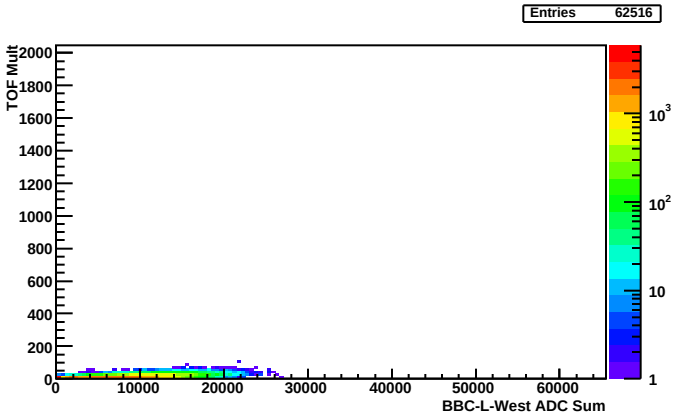

BBQ-VP003 (HI threshold)
Entries 1000256
ADC
QT Input Channel

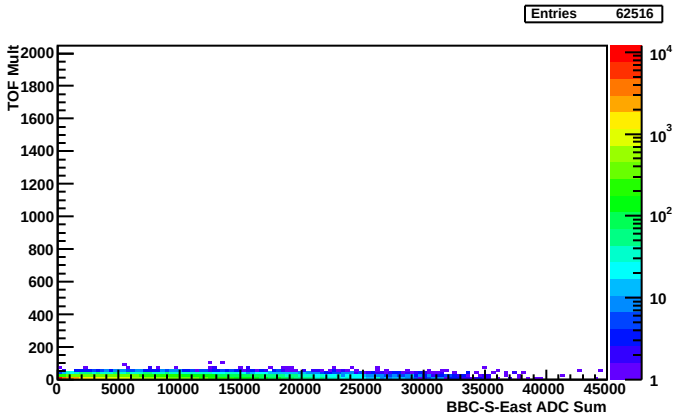

BBQ-VP003 (HI threshold)
Entries 1000256
TAC
QT Input Channel

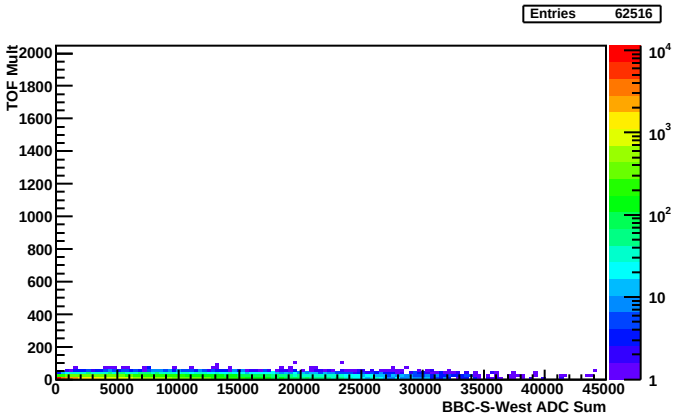

BBQ-VP004 (HI threshold)
Entries 1000256
ADC
QT Input Channel

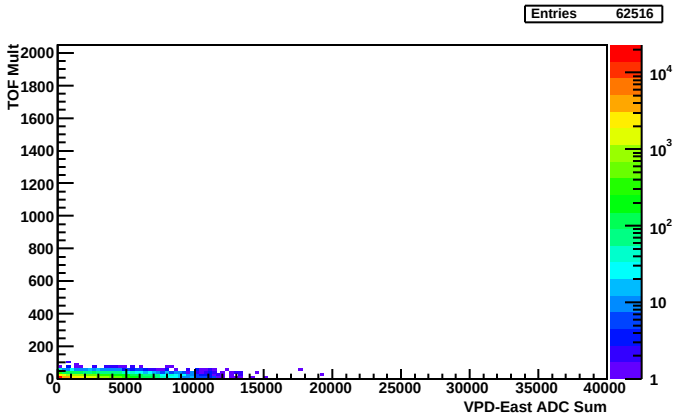

BBQ-VP004 (HI threshold)
Entries 1000256
TAC
QT Input Channel

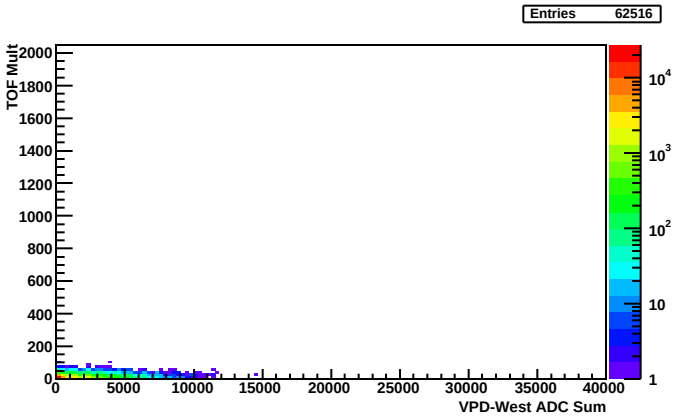

Entries 62516
TOF Mult
BBC-L-East ADC Sum

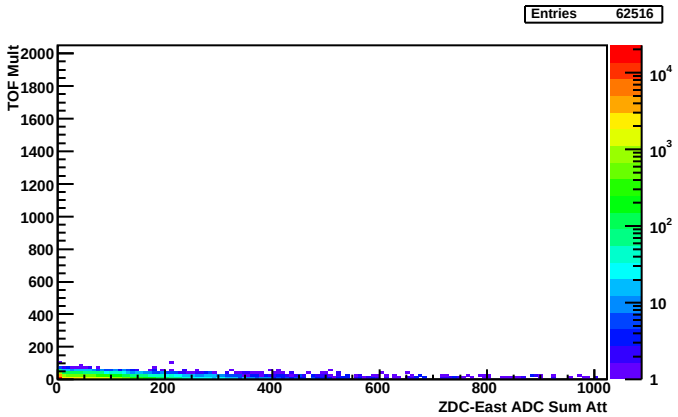

Entries 62516
TOF Mult
BBC-L-West ADC Sum

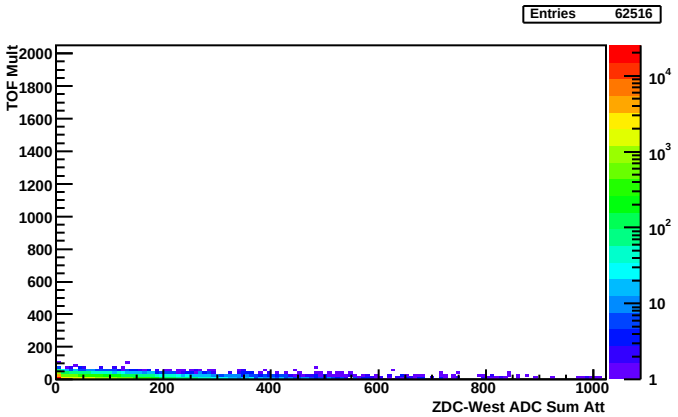

Entries 62516
TOF Mult
BBC-S-East ADC Sum

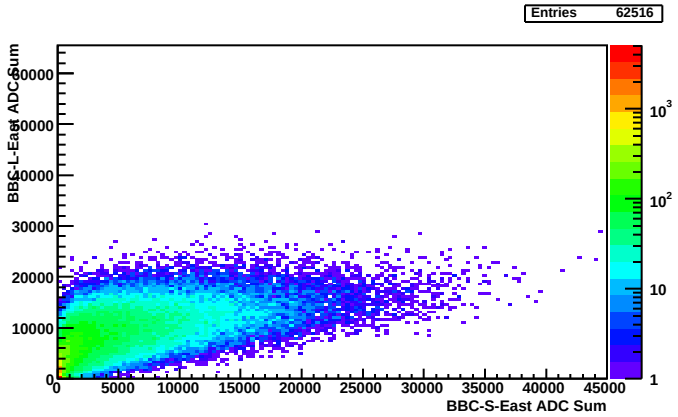

Entries 62516
TOF Mult
BBC-S-West ADC Sum

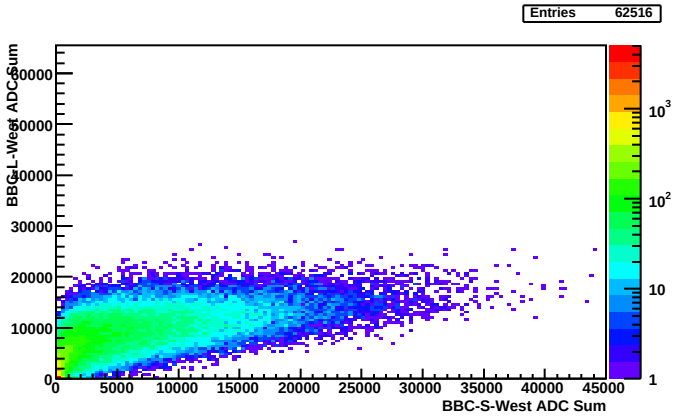

Entries 62516
TOF Mult
VPD-East ADC Sum

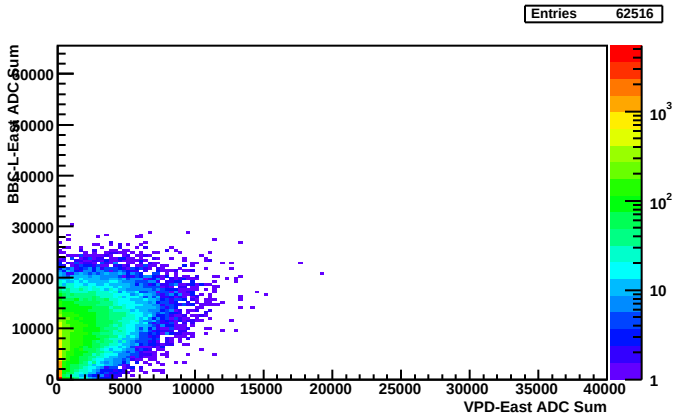

Entries 62516
TOF Mult
VPD-West ADC Sum

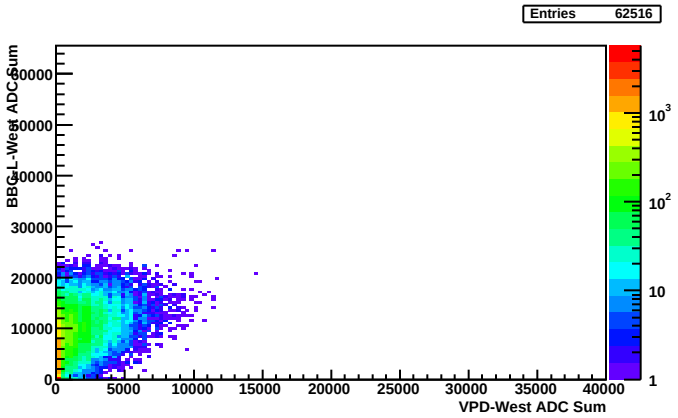

Entries 62516
TOF Mult
ZDC-East ADC Sum Att

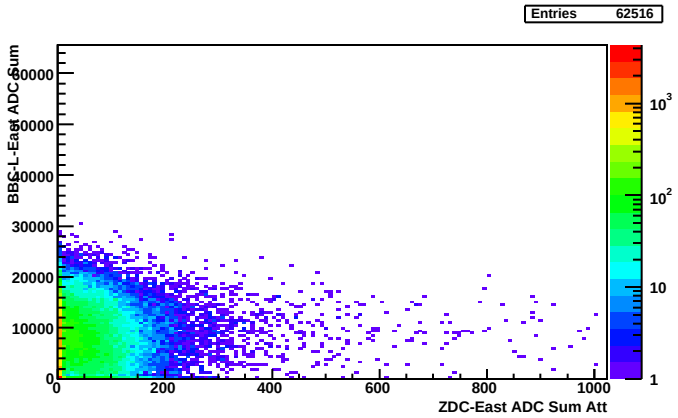

Entries 62516
TOF Mult
ZDC-West ADC Sum Att

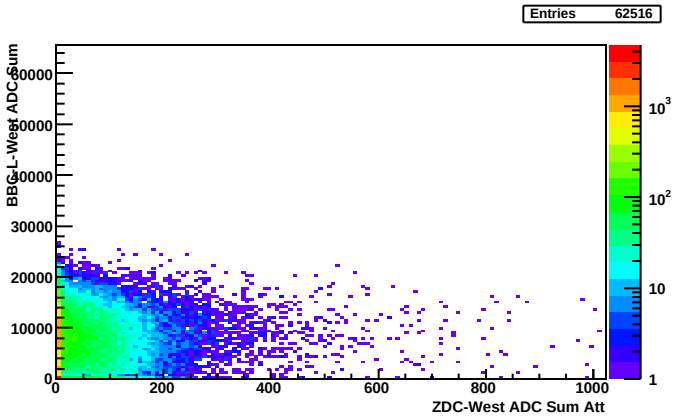

Entries 62516
BBC-L-East ADC Sum
BBC-S-East ADC Sum

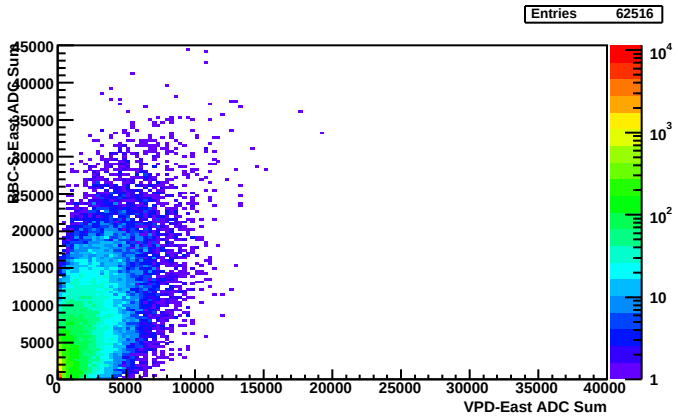

Entries 62516
BBC-L-West ADC Sum
BBC-S-West ADC Sum

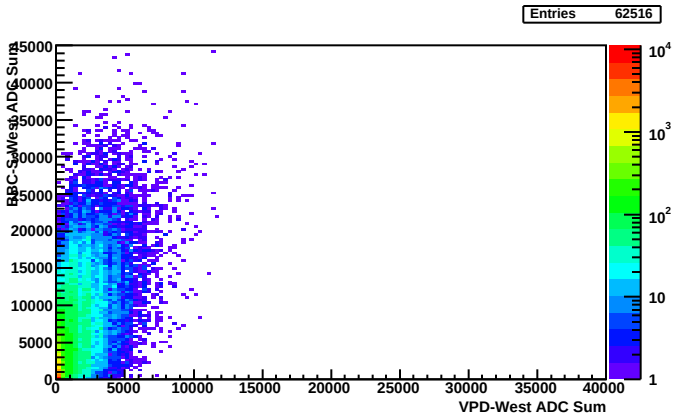

Entries 62516
BBC-L-East ADC Sum
VPD-East ADC Sum

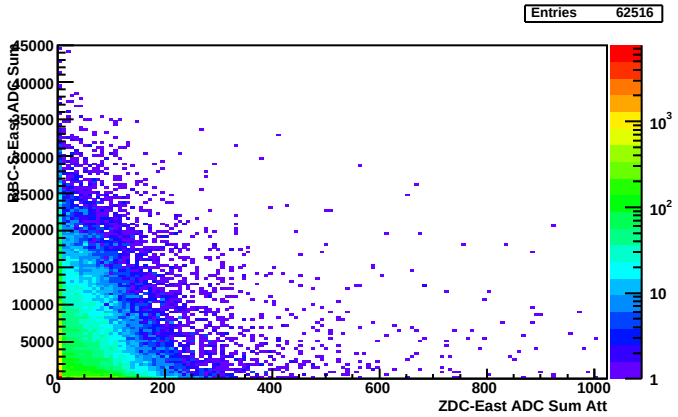

Entries 62516
BBC-L-West ADC Sum
VPD-West ADC Sum

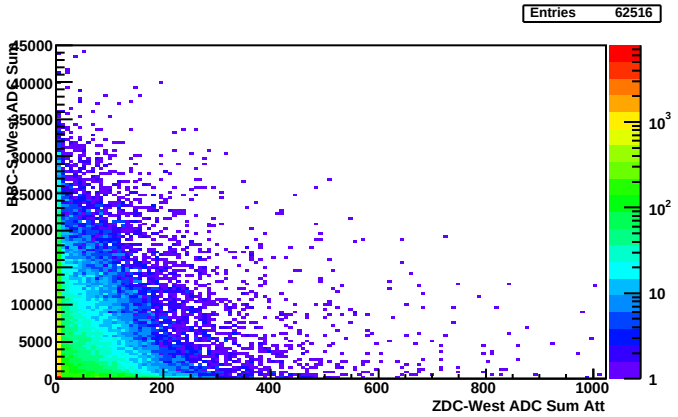

Entries 62516
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

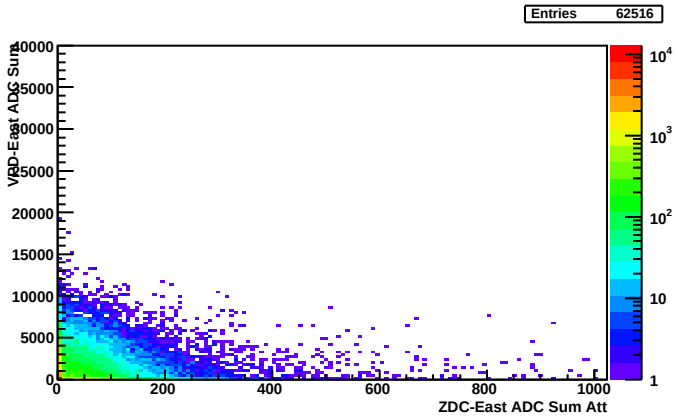

Entries 62516
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

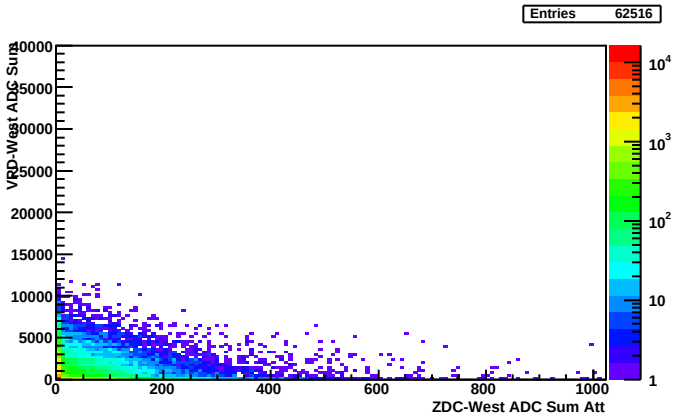

Entries 62516
BBC-S-East ADC Sum
VPD-East ADC Sum

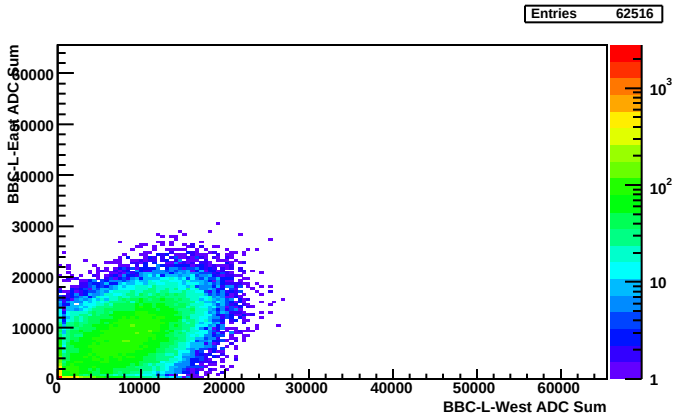

Entries 62516
BBC-S-West ADC Sum
VPD-West ADC Sum

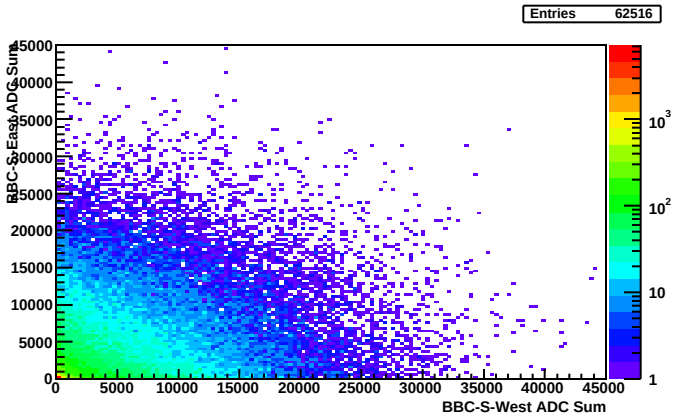

Entries 62516
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

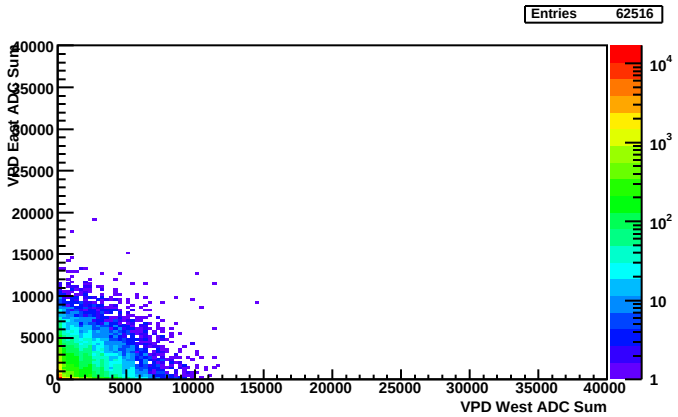

Entries 62516
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

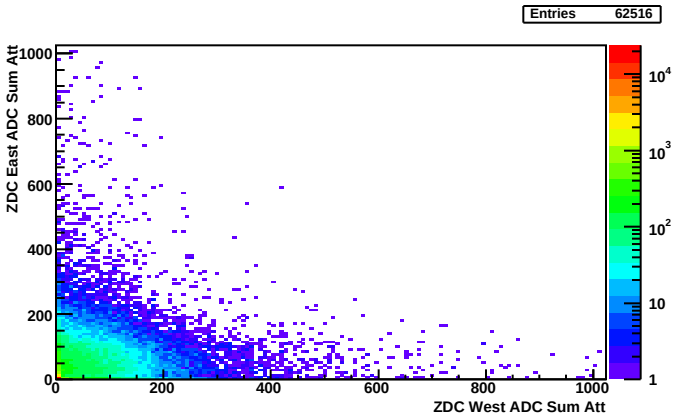

Entries 62516
VPD-East ADC Sum
ZDC-East ADC Sum Att

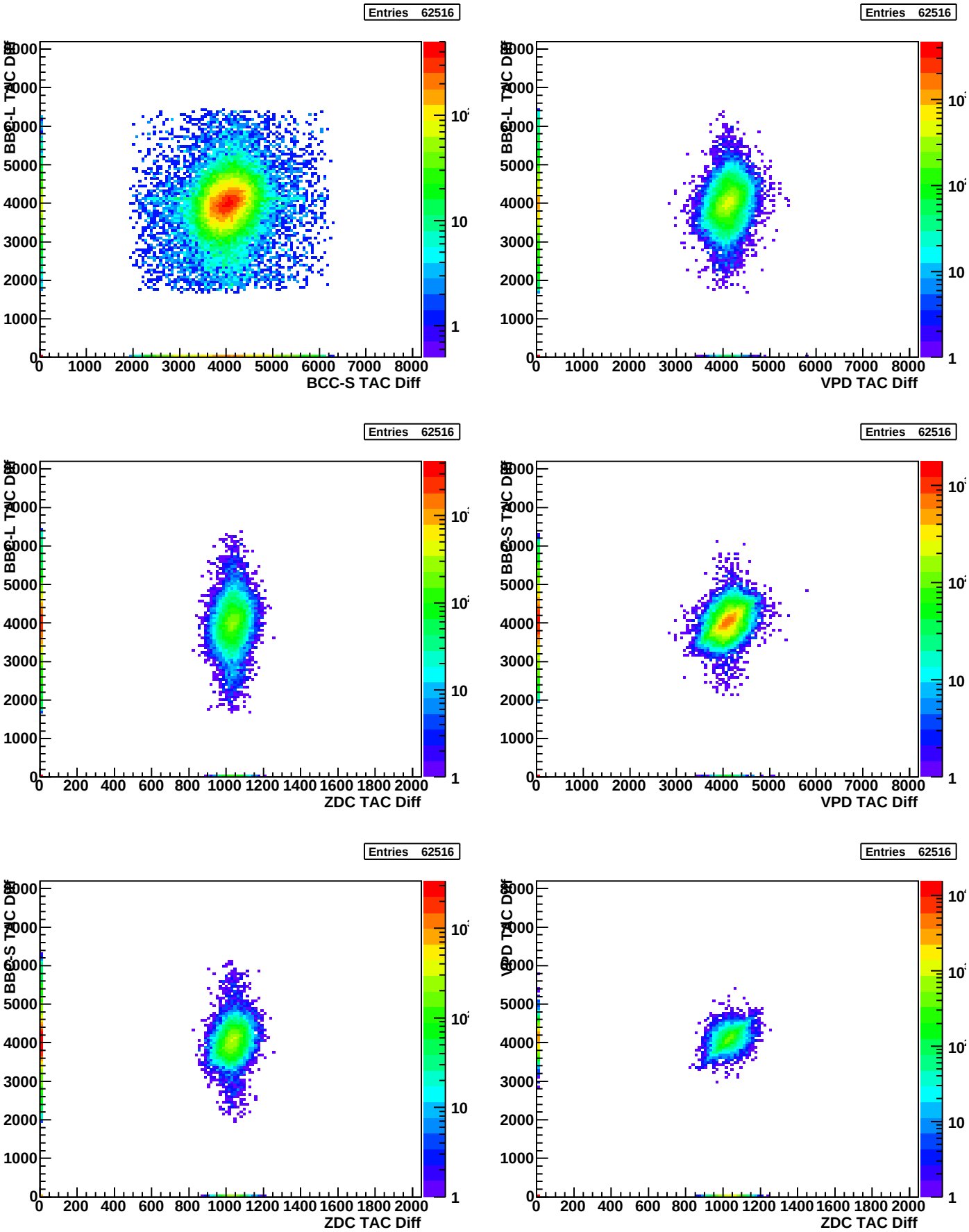

Entries 62516
VPD-West ADC Sum
ZDC-West ADC Sum Att

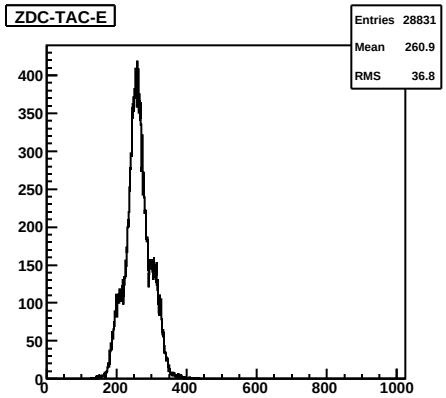

Entries 62516
BBC-L-East ADC Sum
BBC-L-West ADC Sum

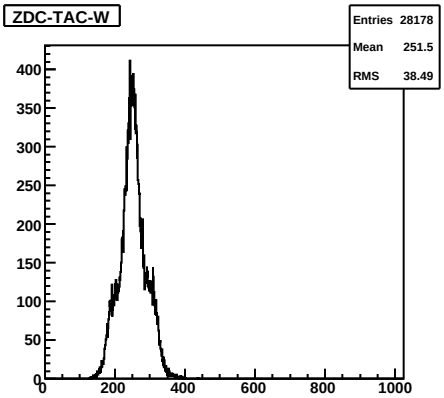

Entries 62516
BBC-S-East ADC Sum
BBC-S-West ADC Sum

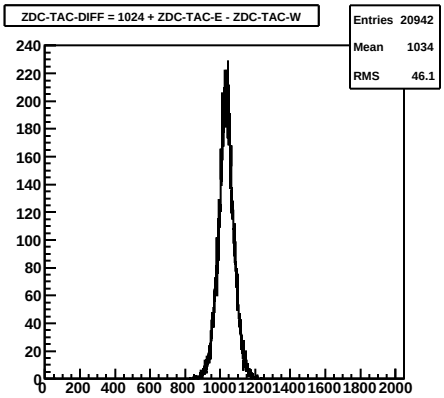

Entries 62516
VPD East ADC Sum
VPD West ADC Sum

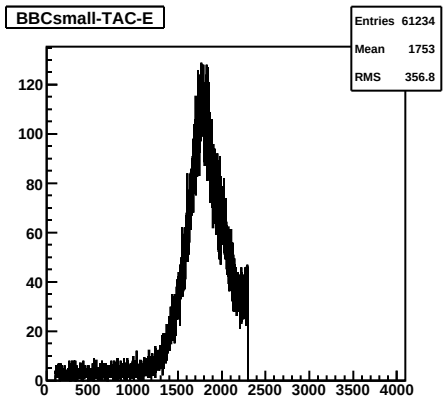

Entries 62516
ZDC East ADC Sum Att
ZDC West ADC Sum Att

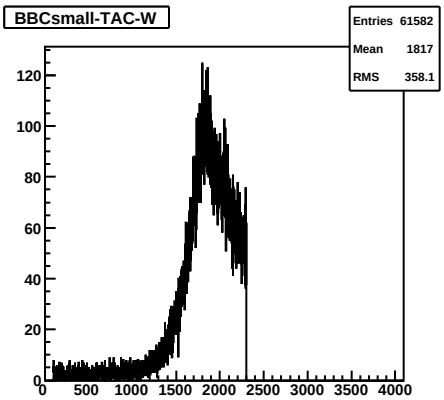

Entries 62516
BBC-L TAC Diff
BCC-S TAC Diff
Entries 62516
BBC-L TAC Diff
VPD TAC Diff
Entries 62516
BBC-L TAC Diff
ZDC TAC Diff
Entries 62516
BBC-S TAC Diff
VPD TAC Diff
Entries 62516
BBC-S TAC Diff
ZDC TAC Diff
Entries 62516
VPD TAC Diff
ZDC TAC Diff

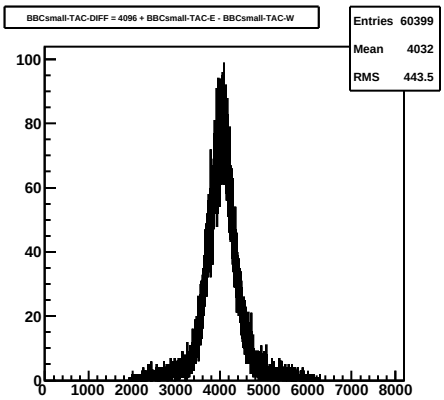

ZDC-TAC-E
Entries 28831
Mean 260.9
RMS 36.8

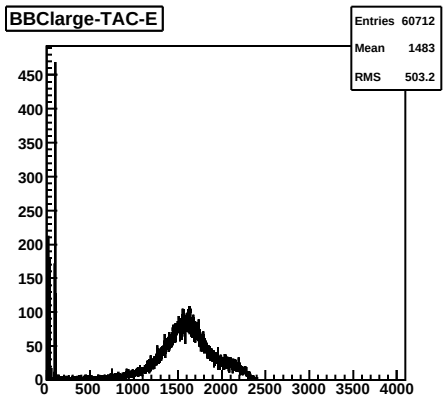

ZDC-TAC-W
Entries 28178
Mean 251.5
RMS 38.49

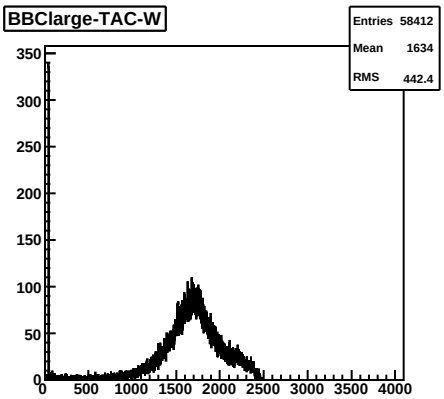

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 20942
Mean 1034
RMS 46.1

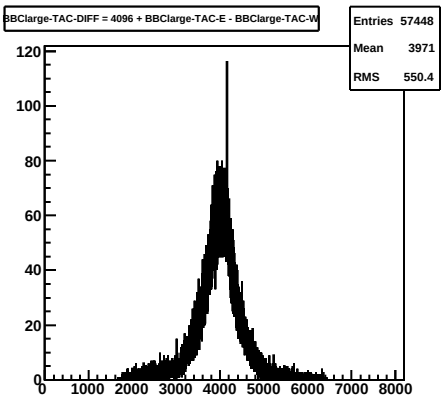

BBCsmall-TAC-E
Entries 61234
Mean 1753
RMS 356.8

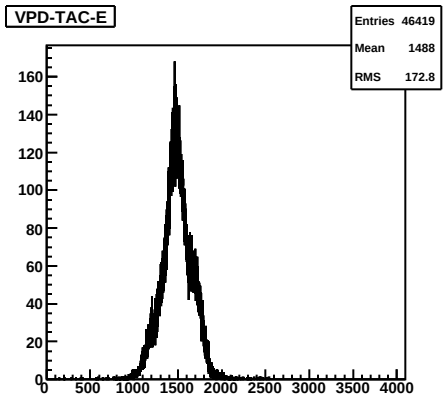

BBCsmall-TAC-W
Entries 61582
Mean 1817
RMS 358.1

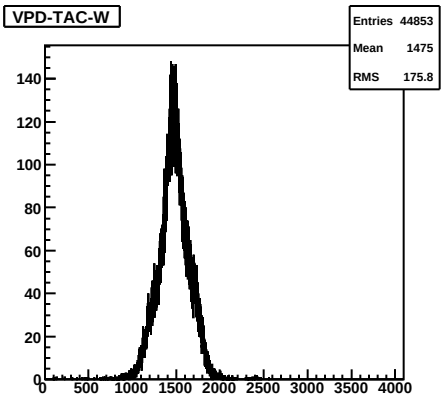

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 60399
Mean 4032
RMS 443.5

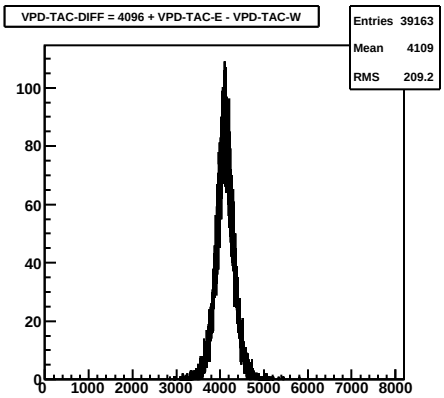

BBClarge-TAC-E
Entries 60712
Mean 1483
RMS 503.2

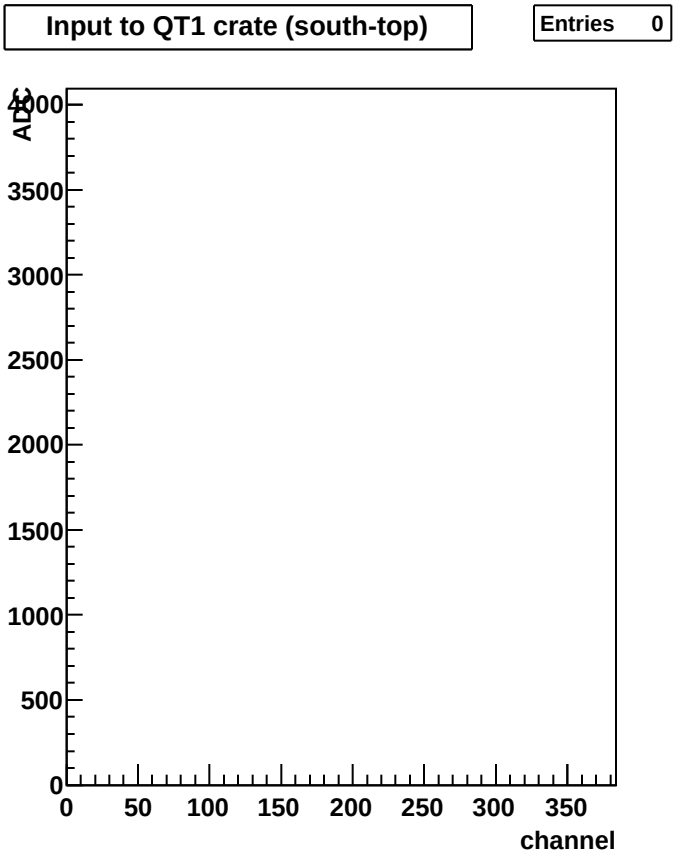

BBClarge-TAC-W
Entries 58412
Mean 1634
RMS 442.4

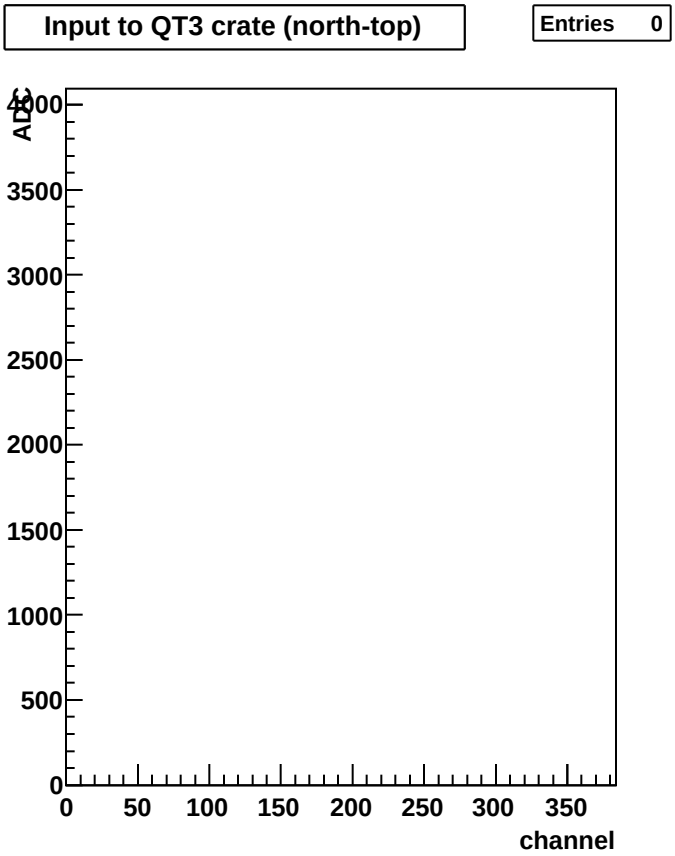

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 57448
Mean 3971
RMS 550.4

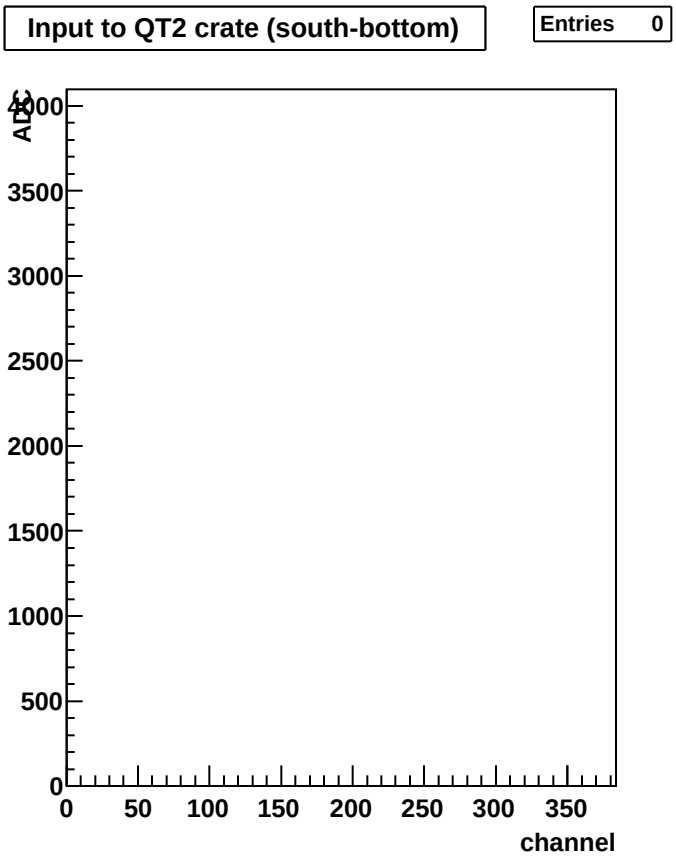

VPD-TAC-E
Entries 46419
Mean 1488
RMS 172.8

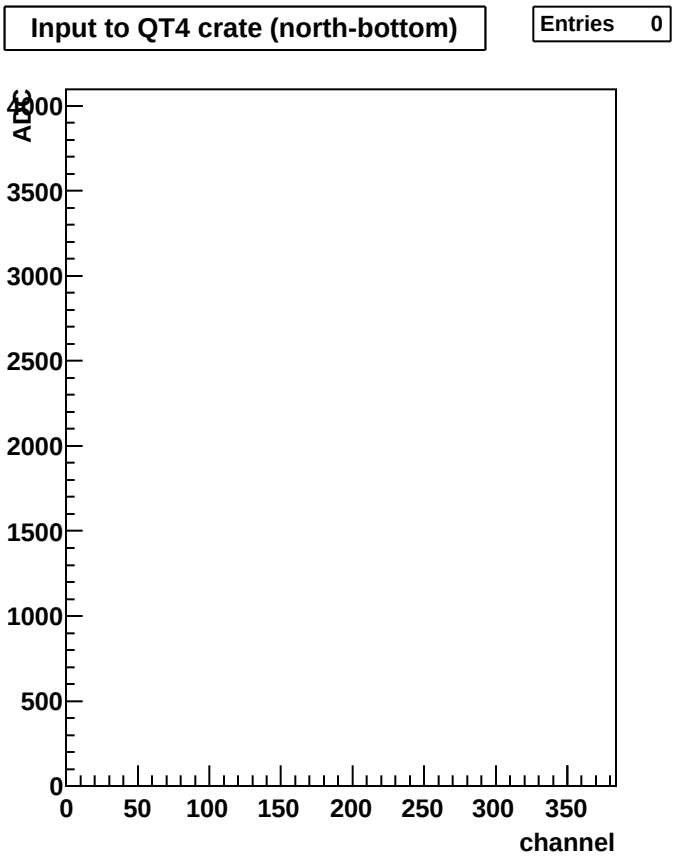

VPD-TAC-W
Entries 44853
Mean 1475
RMS 175.8

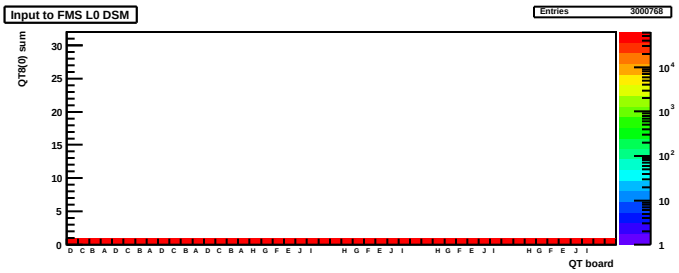

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 39163
Mean 4109
RMS 209.2

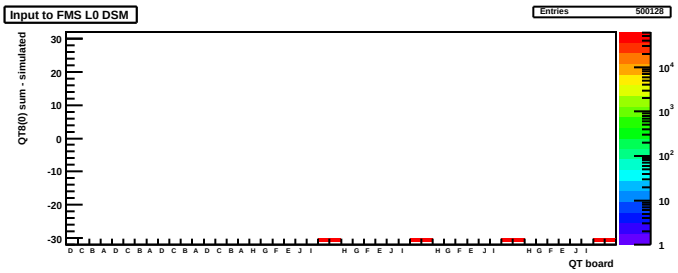

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

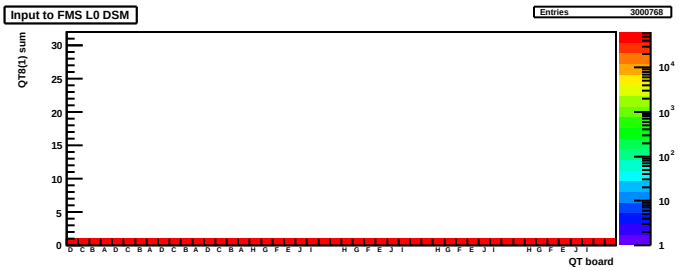

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

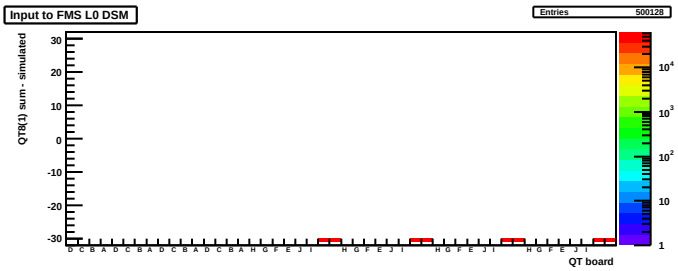

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

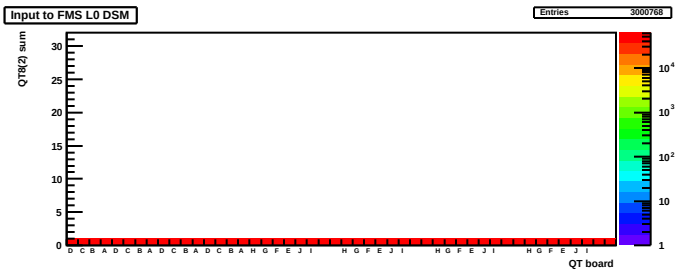

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

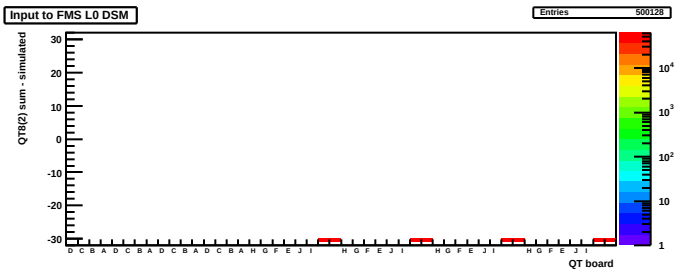

Input to FMS L0 DSM
Entries 3000768
QT8(0) sum
QT board

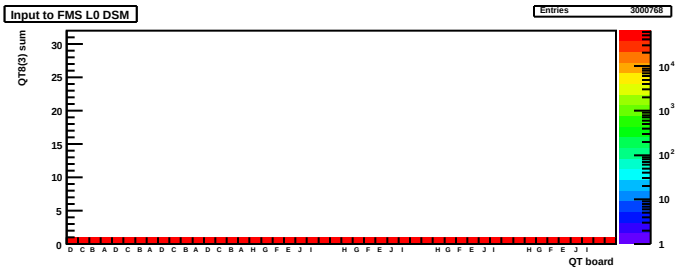

Input to FMS L0 DSM
Entries 500128
QT8(0) sum - simulated
QT board

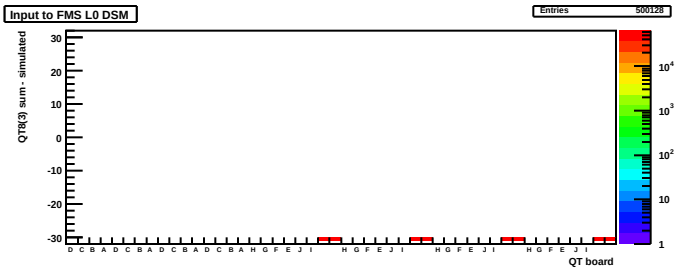

Input to FMS L0 DSM
Entries 3000768
QT8(1) sum
QT board

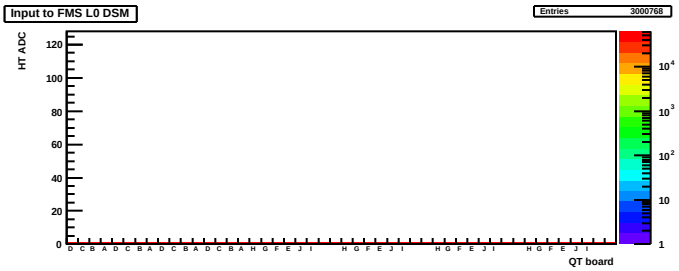

Input to FMS L0 DSM
Entries 500128
QT8(1) sum - simulated
QT board

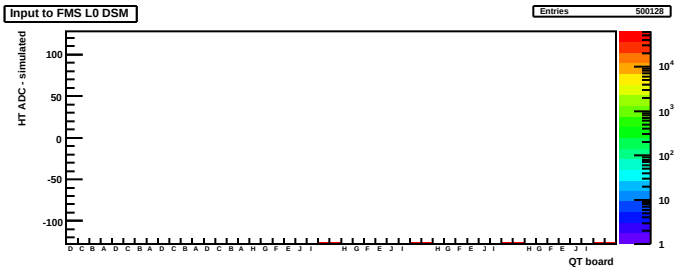

Input to FMS L0 DSM
Entries 3000768
QT8(2) sum
QT board

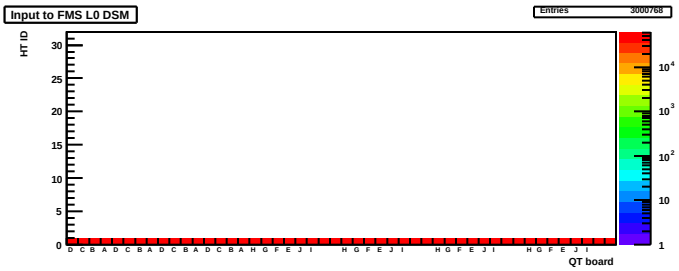

Input to FMS L0 DSM
Entries 500128
QT8(2) sum - simulated
QT board

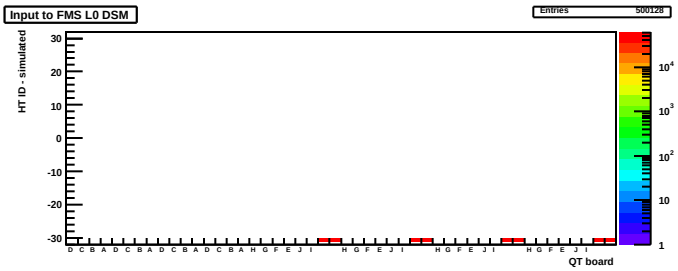

Input to FMS L0 DSM
Entries 3000768
QT8(3) sum
QT board

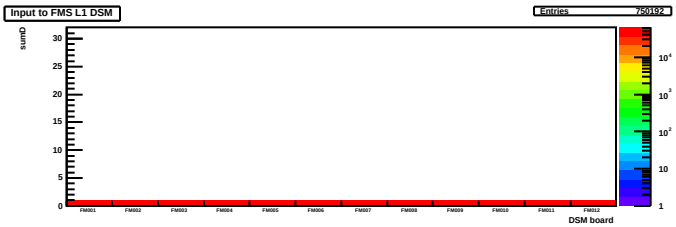

Input to FMS L0 DSM
Entries 500128
QT8(3) sum - simulated
QT board

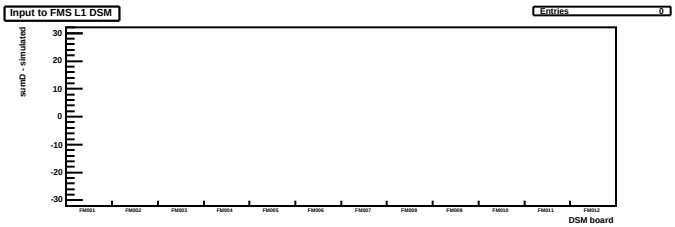

Input to FMS L0 DSM
Entries 3000768
HT ADC
QT board

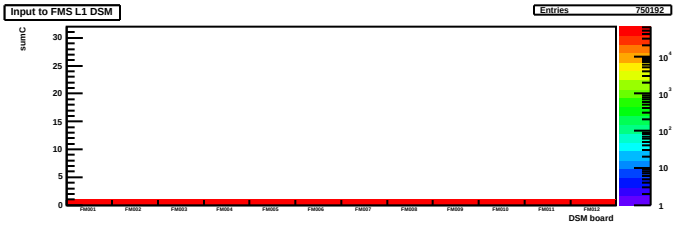

Input to FMS L0 DSM
Entries 500128
HT ADC - simulated
QT board

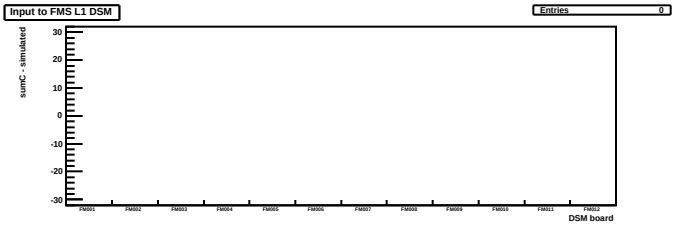

Input to FMS L0 DSM
Entries 3000768
HT ID
QT board

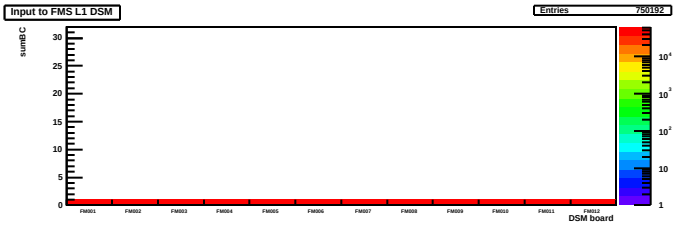

Input to FMS L0 DSM
Entries 500128
HT ID - simulated
QT board

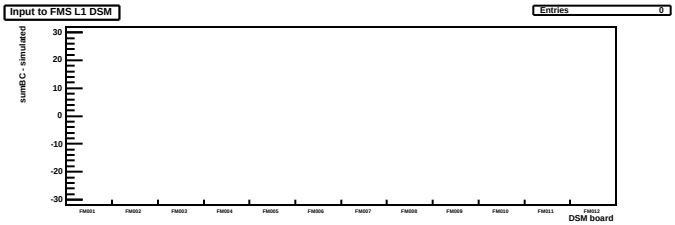

Input to FMS L1 DSM
Entries 750192
sumD
DSM board

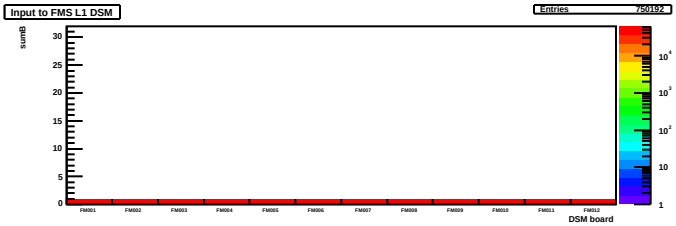

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

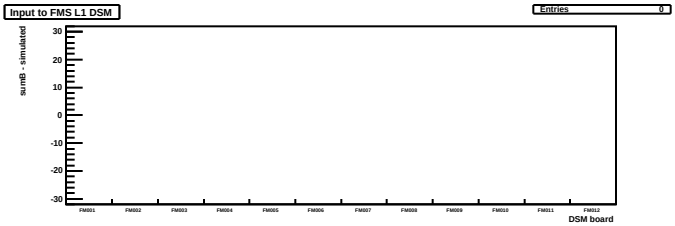

Input to FMS L1 DSM
Entries 750192
sumC
DSM board

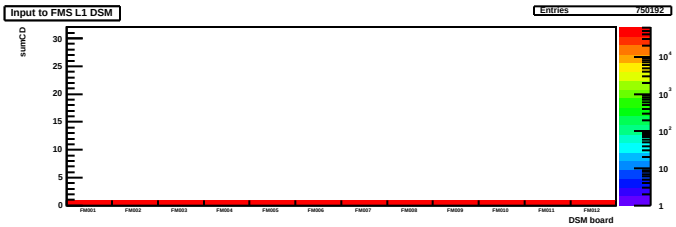

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

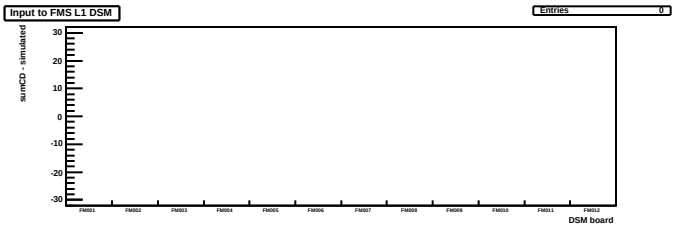

Input to FMS L1 DSM
Entries 750192
sumBC
DSM board

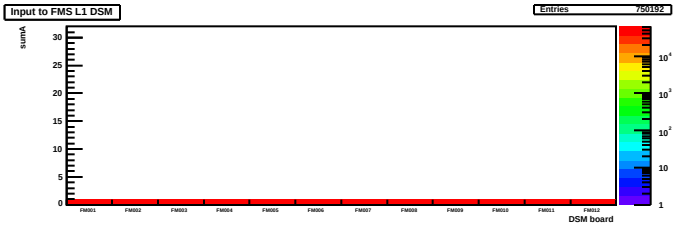

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

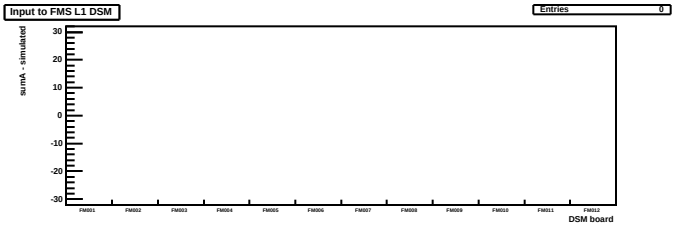

Input to FMS L1 DSM
Entries 750192
sumB
DSM board

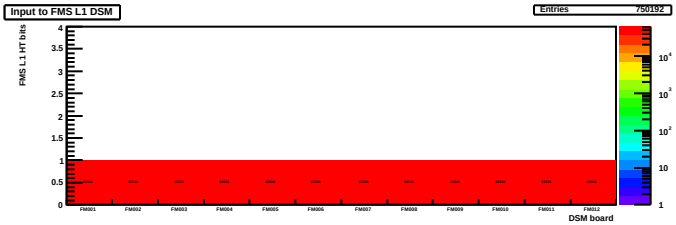

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

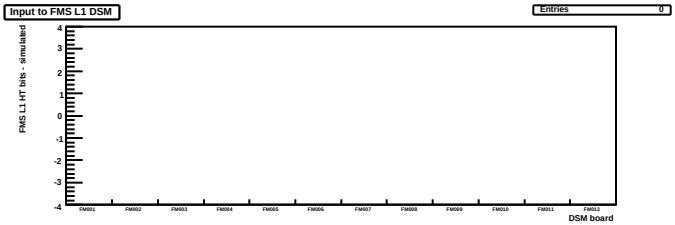

Input to FMS L1 DSM
Entries 750192
sumCD
DSM board

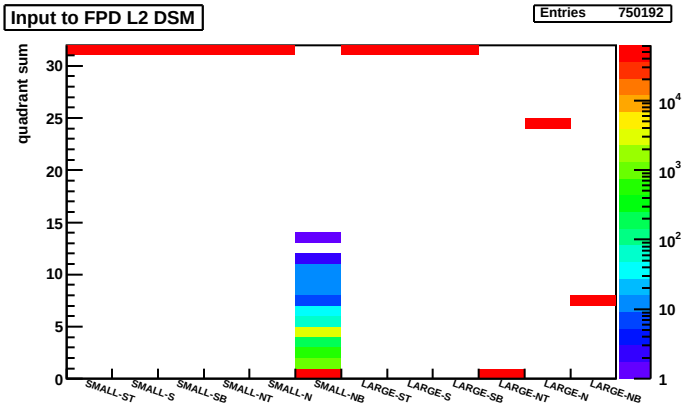

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

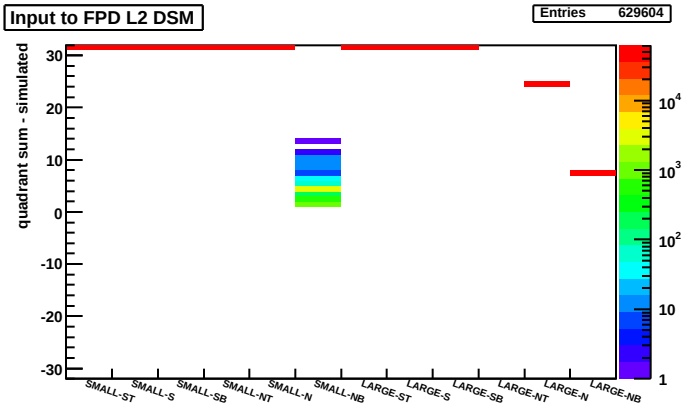

Input to FMS L1 DSM
Entries 750192
sumA
DSM board

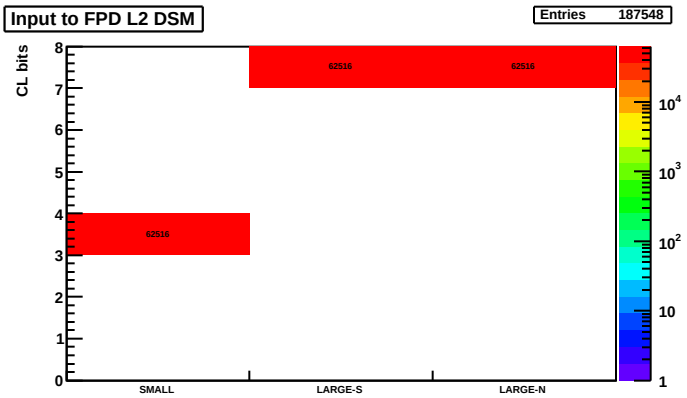

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

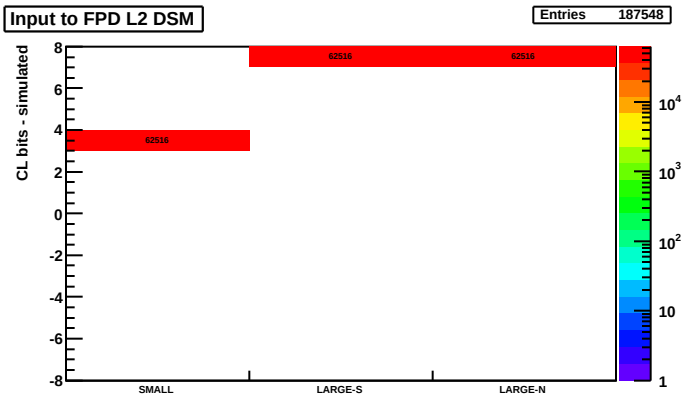

Input to FMS L1 DSM
Entries 750192
FMS L1 HT bits
DSM board

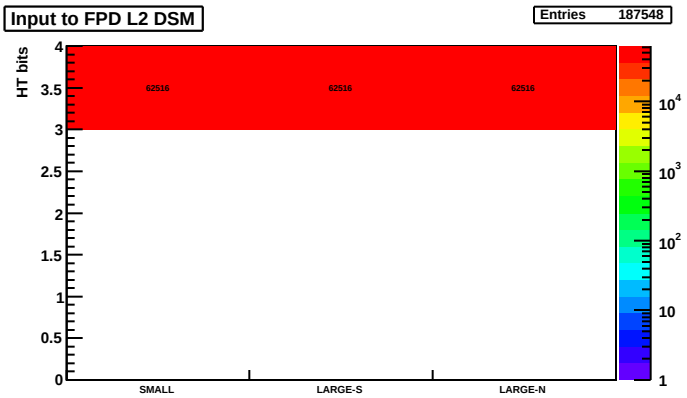

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

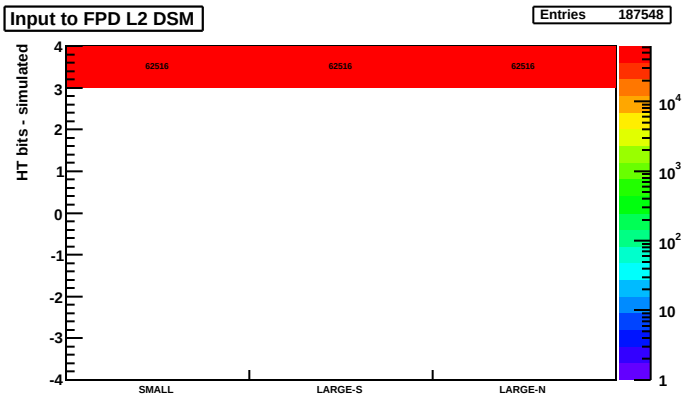

Input to FPD L2 DSM
Entries 750192
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

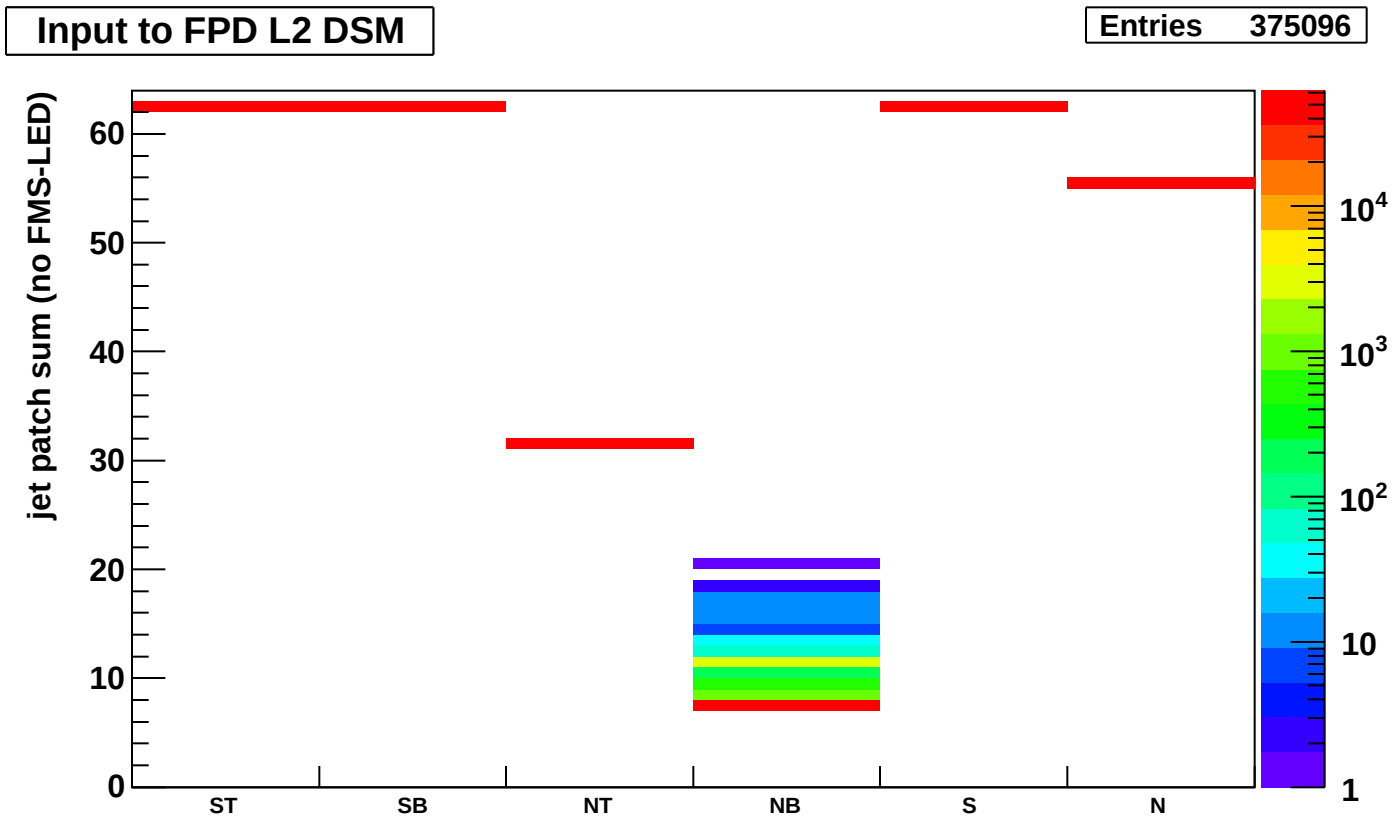

Input to FPD L2 DSM
Entries 629604
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

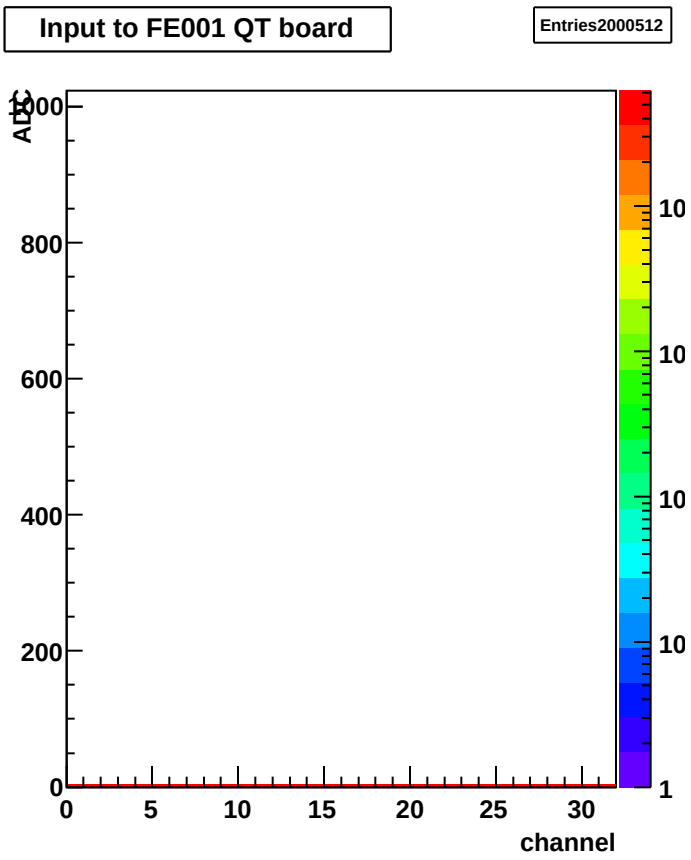

Input to FPD L2 DSM
Entries 187548
CL bits
62516
SMALL
LARGE-S
LARGE-N

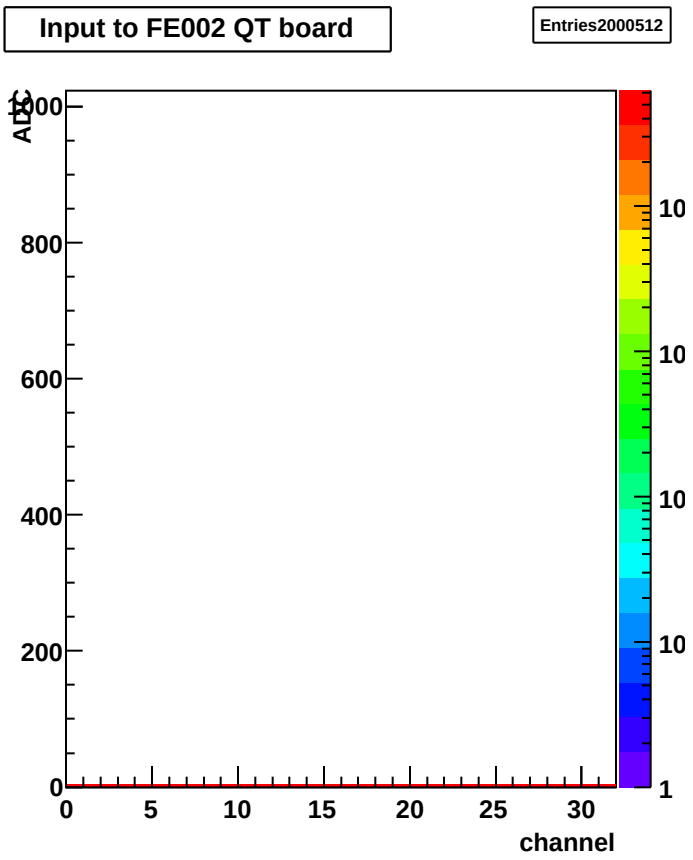

Input to FPD L2 DSM
Entries 187548
CL bits - simulated
62516
SMALL
LARGE-S
LARGE-N

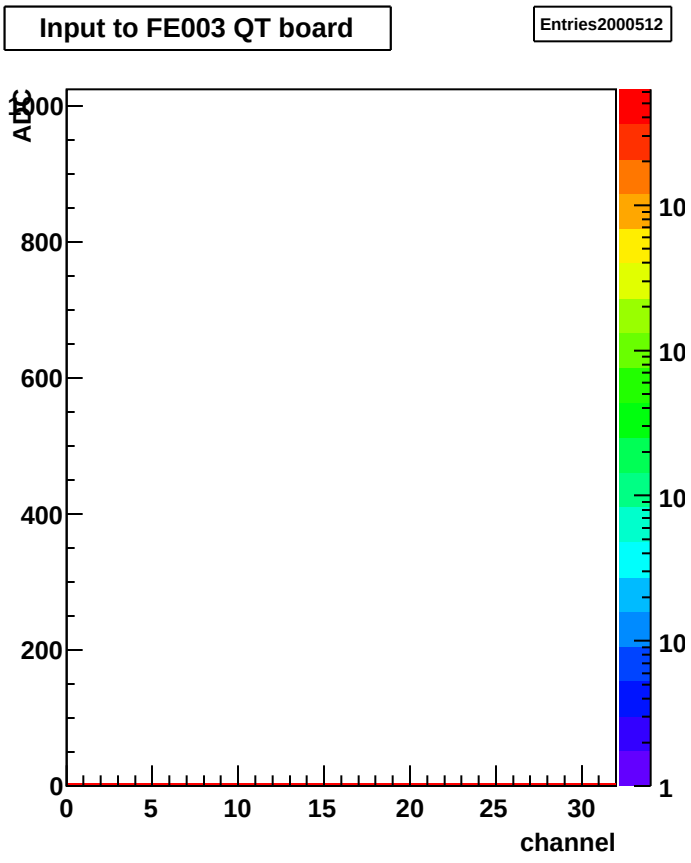

Input to FPD L2 DSM
Entries 187548
HT bits
62516
SMALL
LARGE-S
LARGE-N

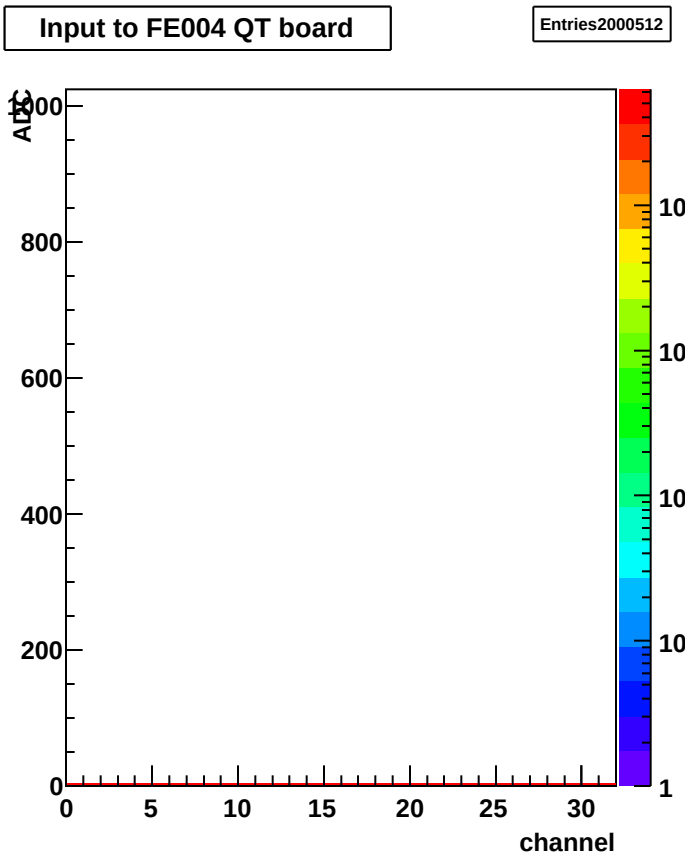

Input to FPD L2 DSM
Entries 187548
HT bits - simulated
62516
SMALL
LARGE-S
LARGE-N

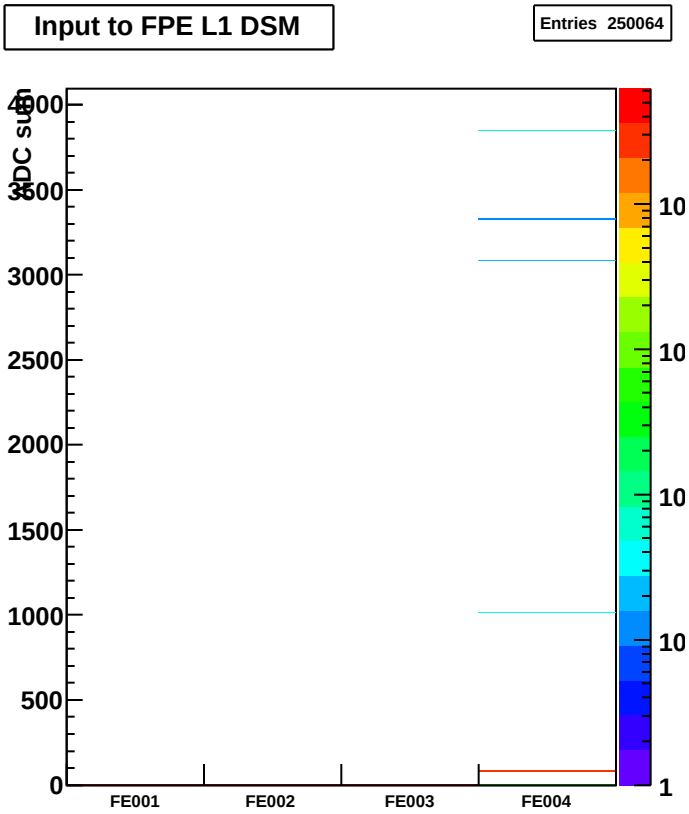

Input to FPD L2 DSM
Entries 375096
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

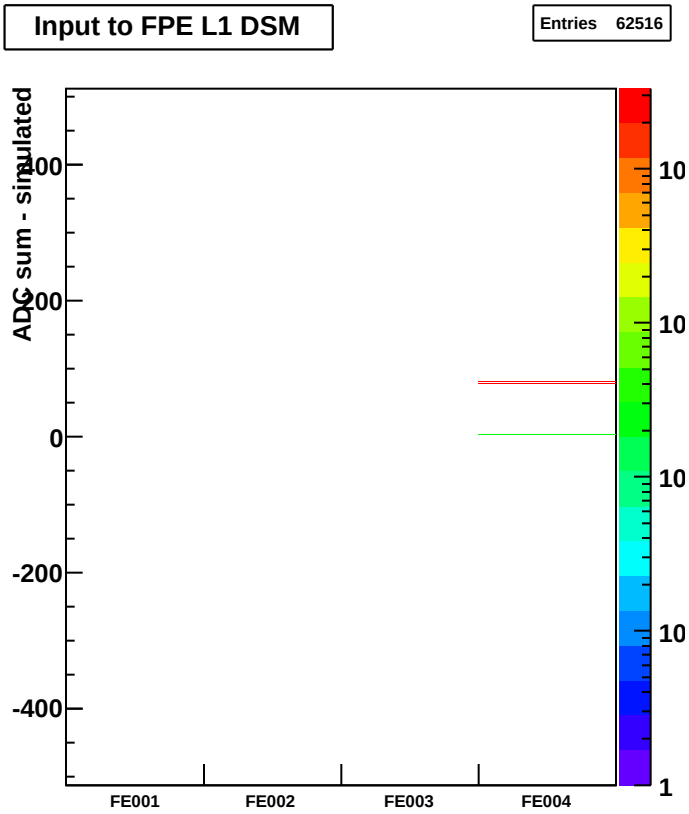

Input to FE001 QT board
Entries2000512
ADC
channel


Input to FE002 QT board
Entries2000512
ADC
channel

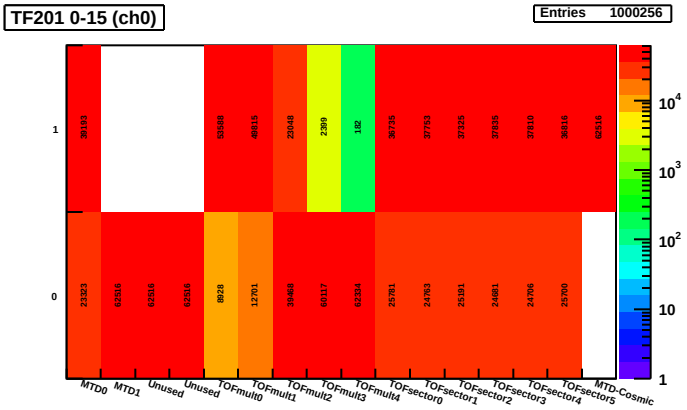

Input to FE003 QT board
Entries2000512
ADC
channel


Input to FE004 QT board
Entries2000512
ADC
channel

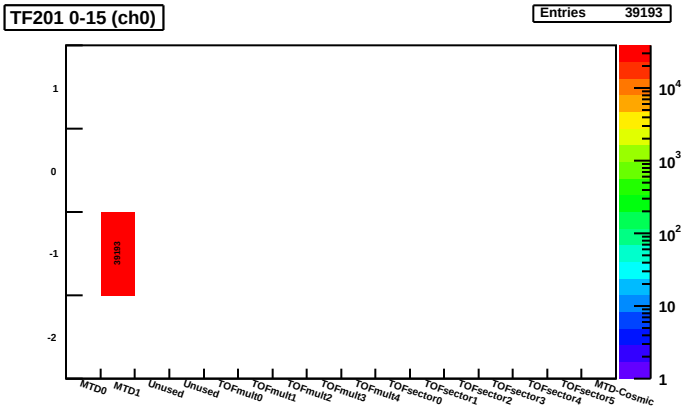

Input to FPE L1 DSM
Entries 250064
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 62516
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

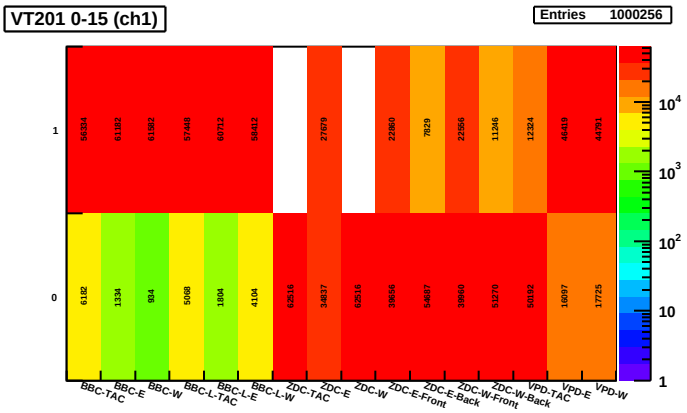
TF201 0-15 (ch0)



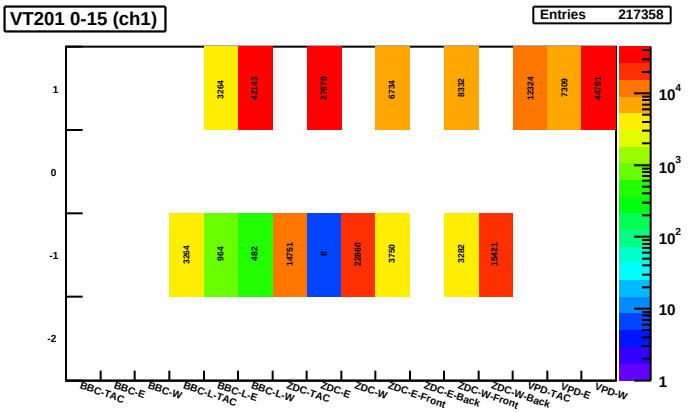
TF201 0-15 (ch0)



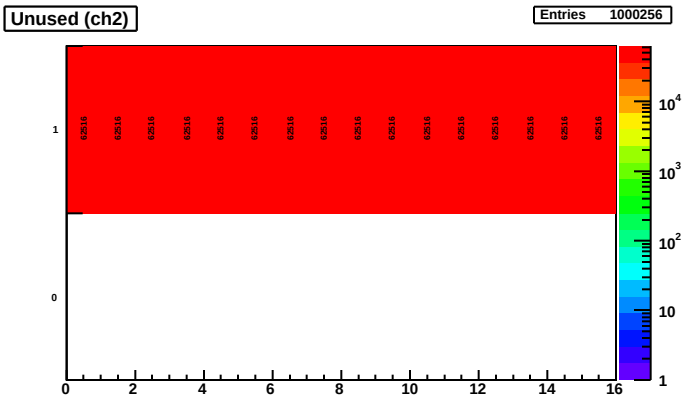
VT201 0-15 (ch1)

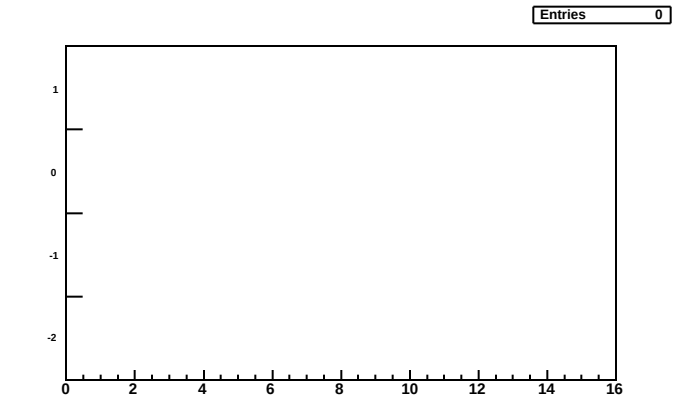


VT201 0-15 (ch1)

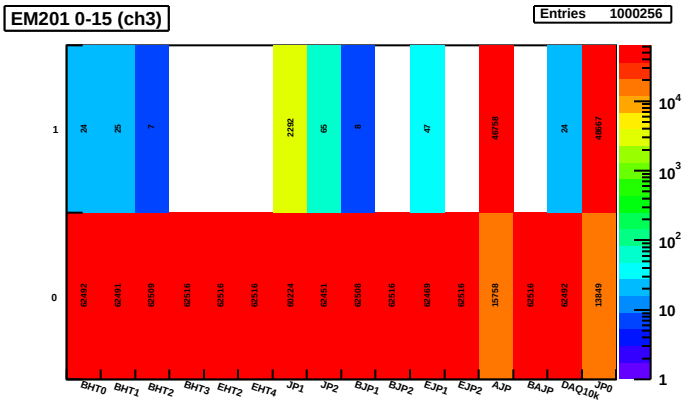


Unused (ch2)





EM201 0-15 (ch3)



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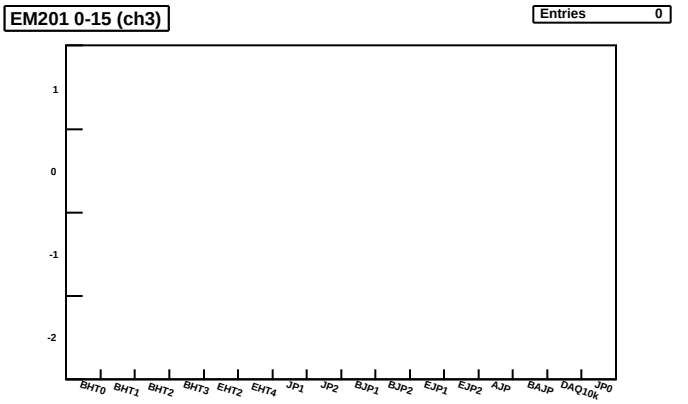
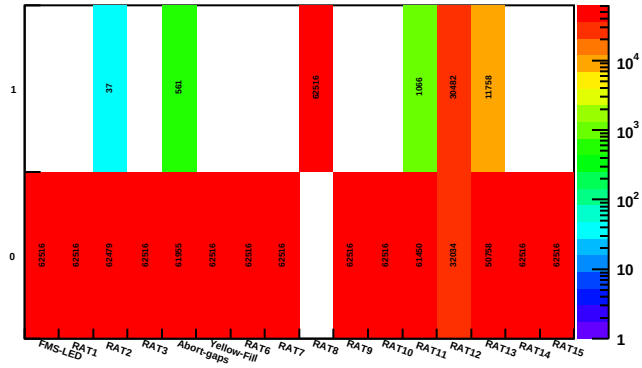
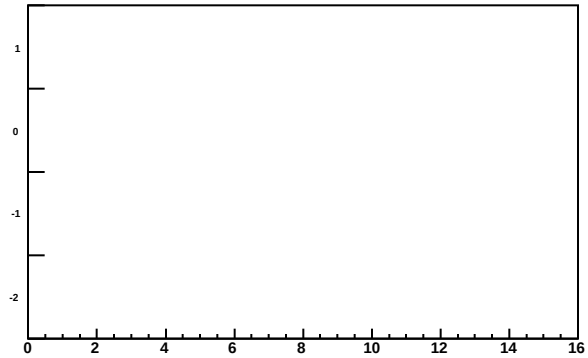
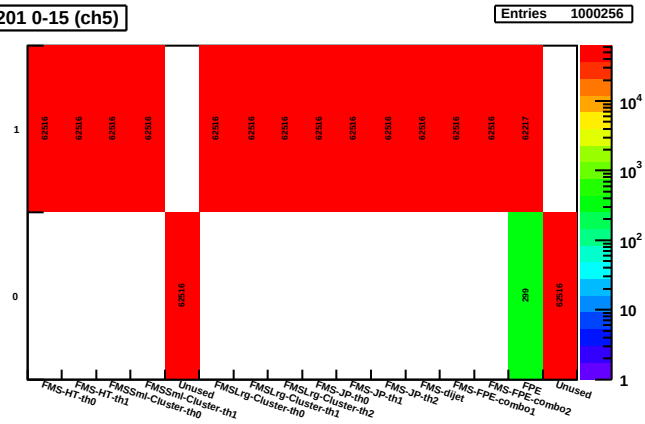


RAT board (ch4)





FP201 0-15 (ch5)



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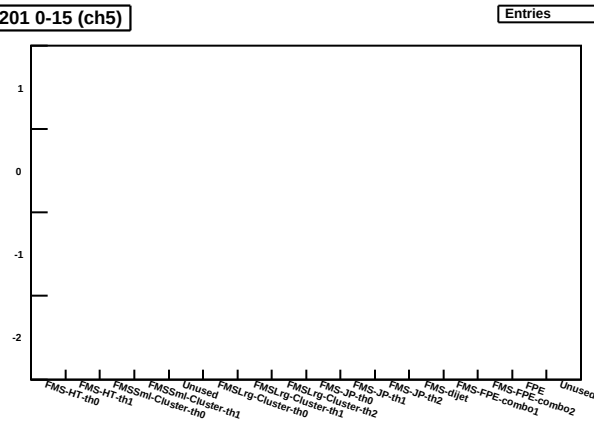
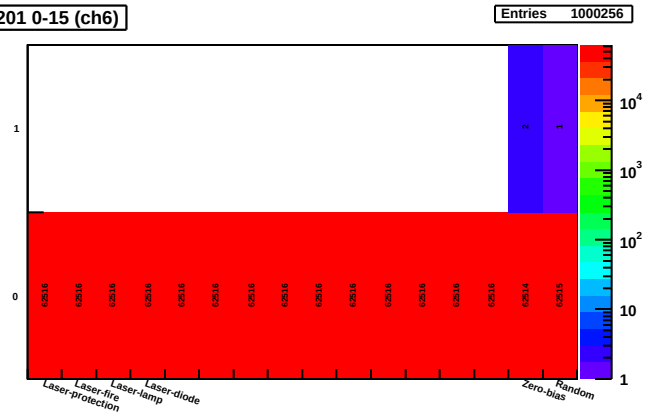
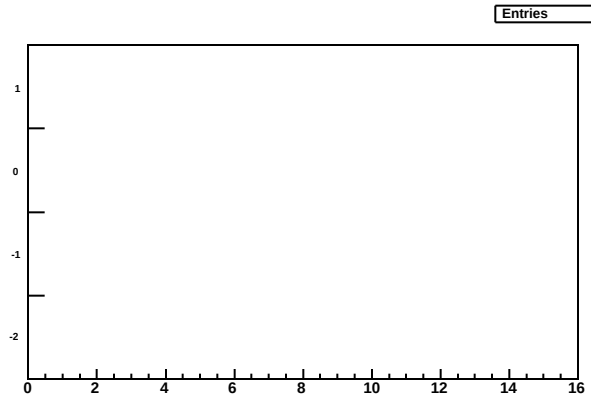
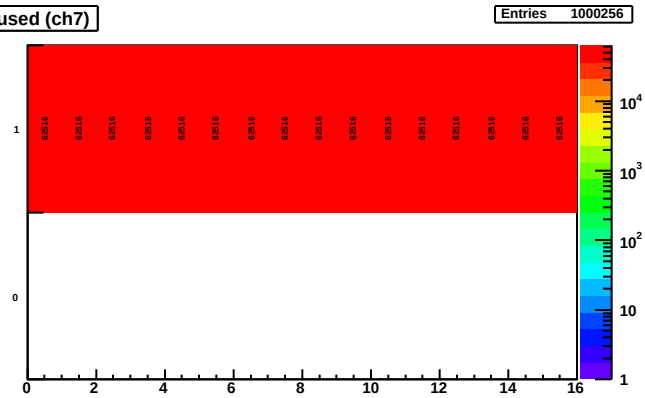
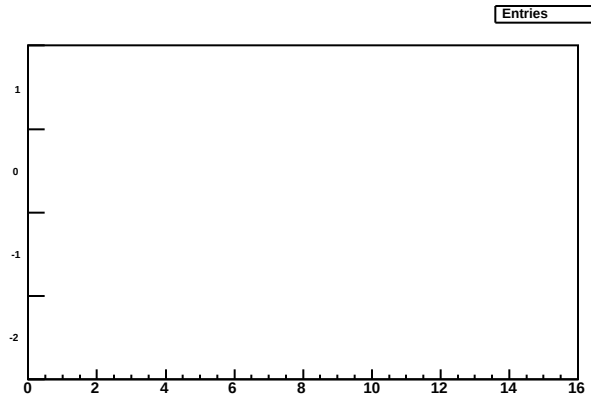


ST201 0-15 (ch6)





Unused (ch7)