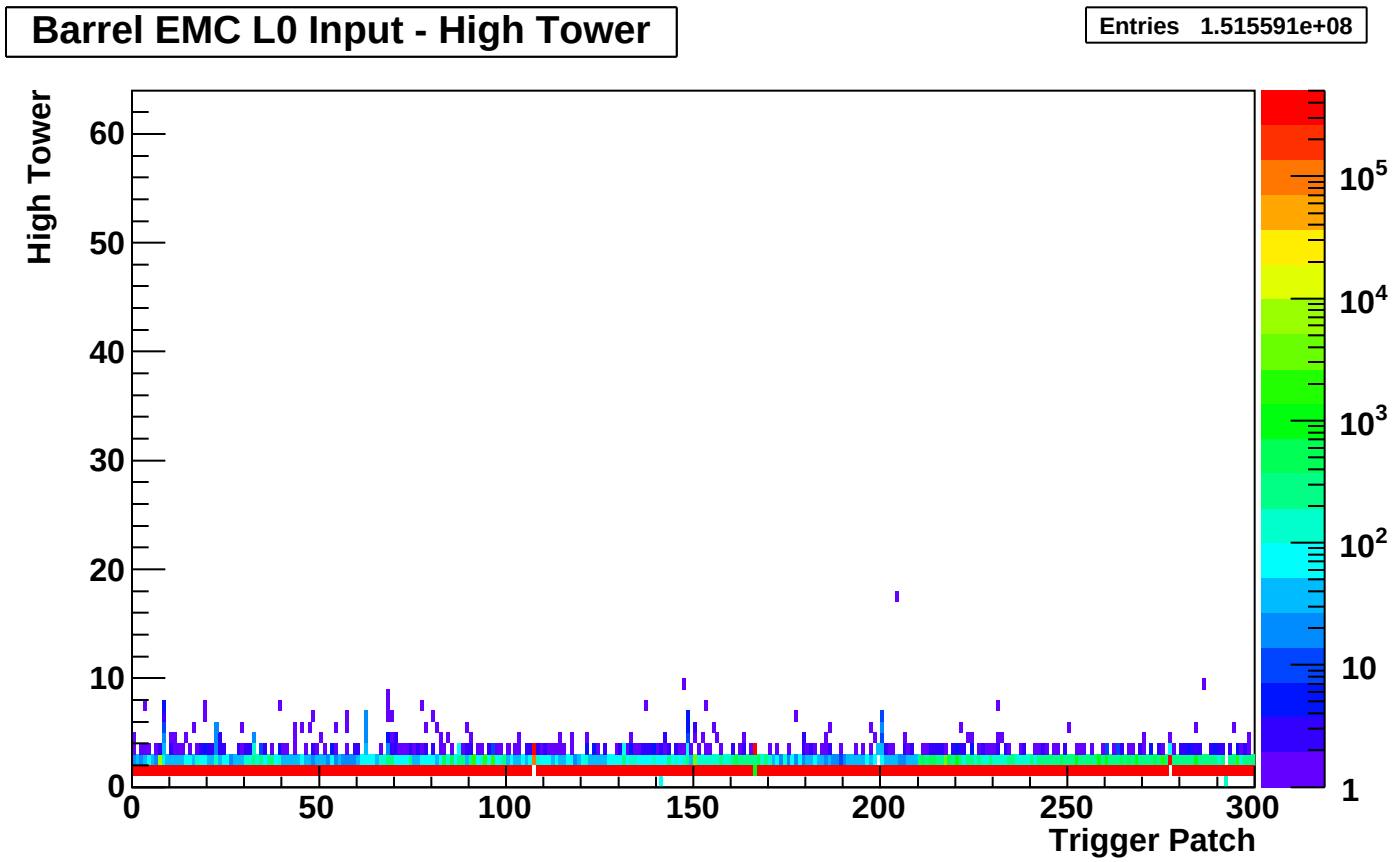
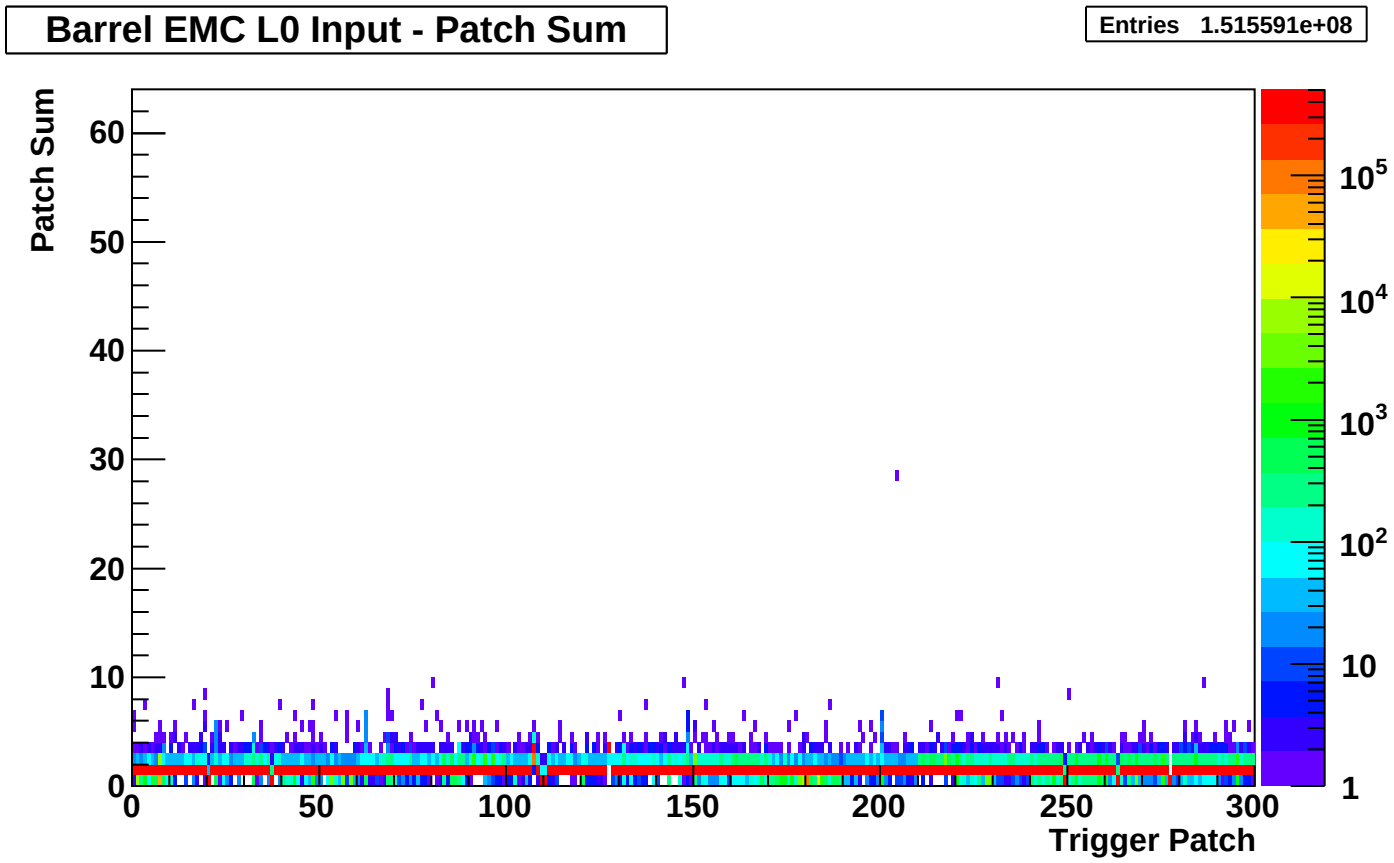
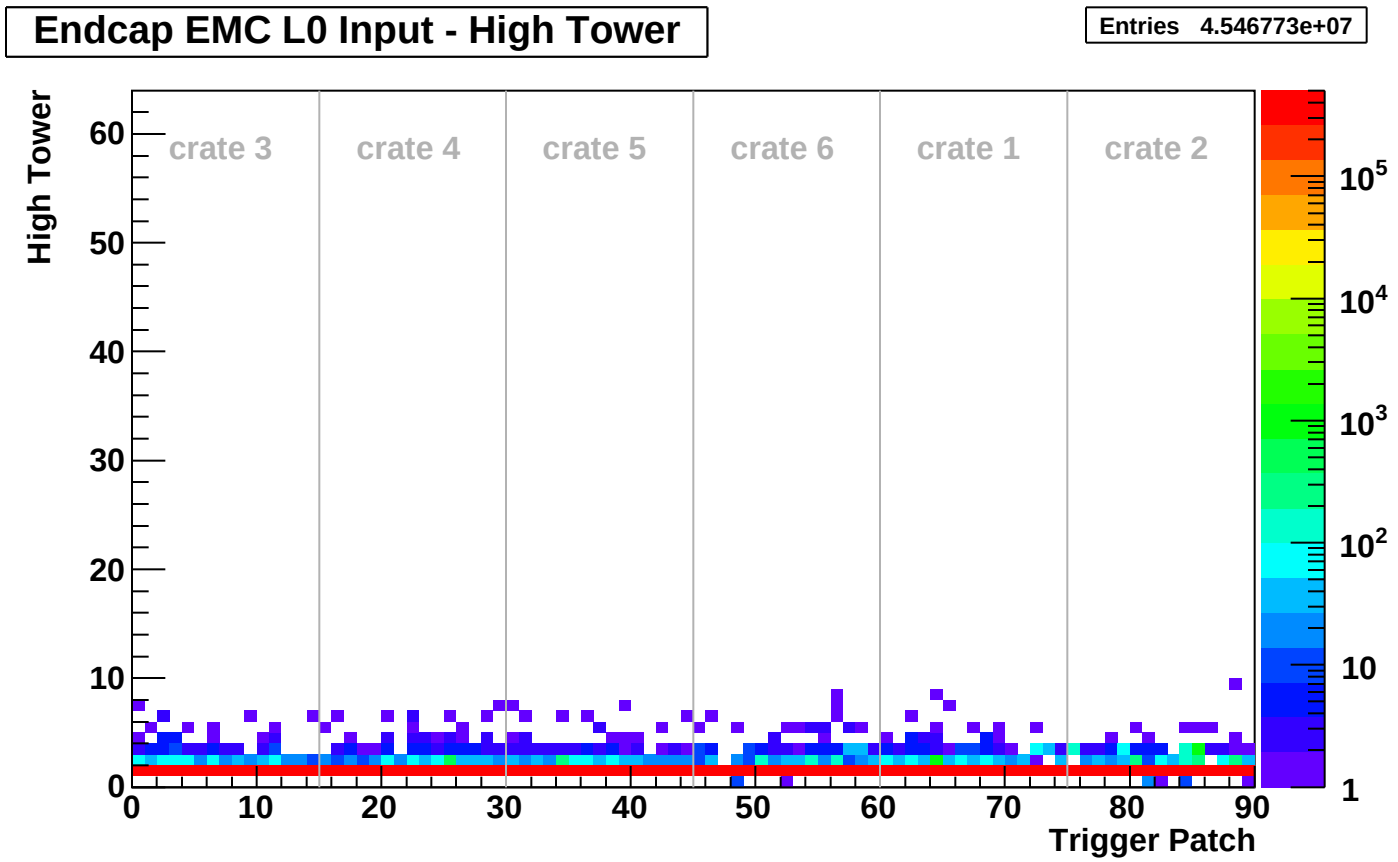
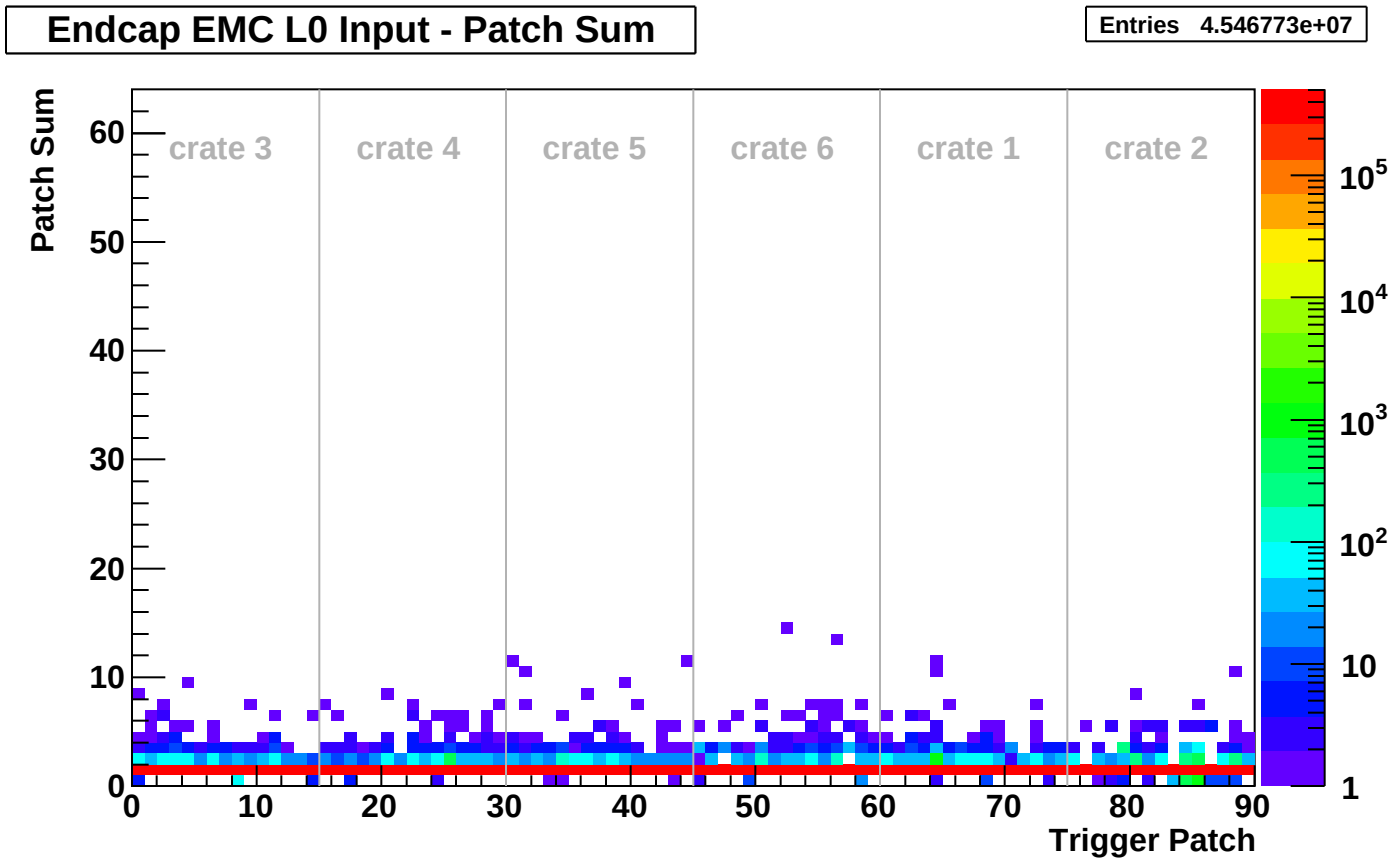
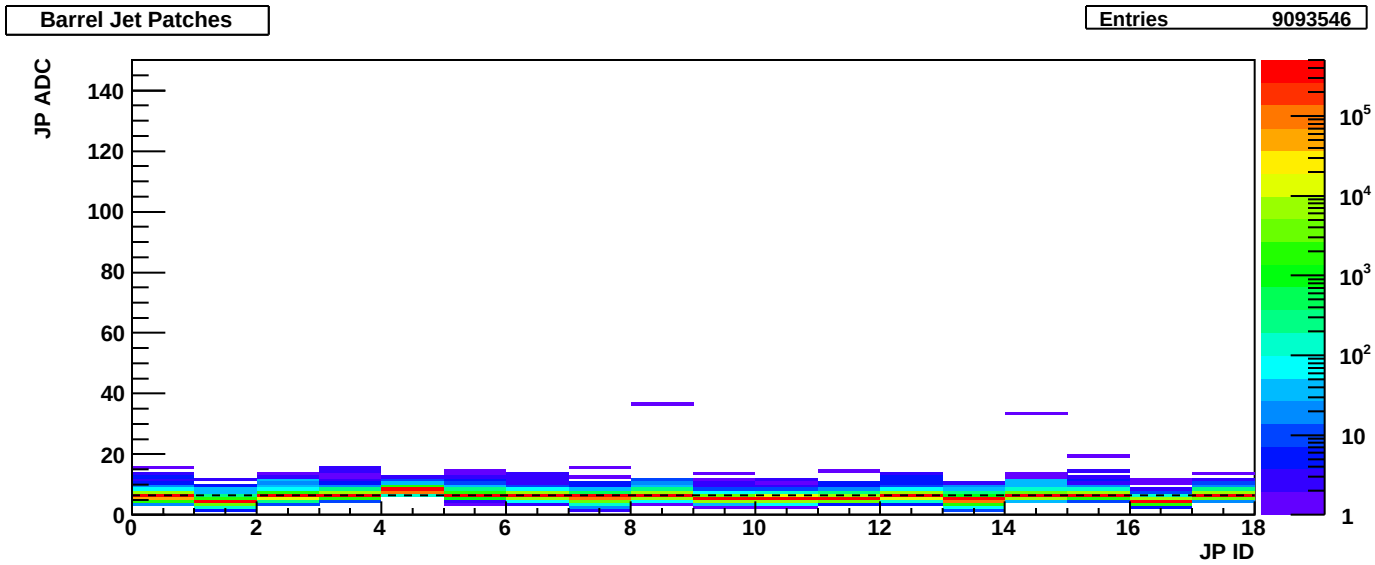
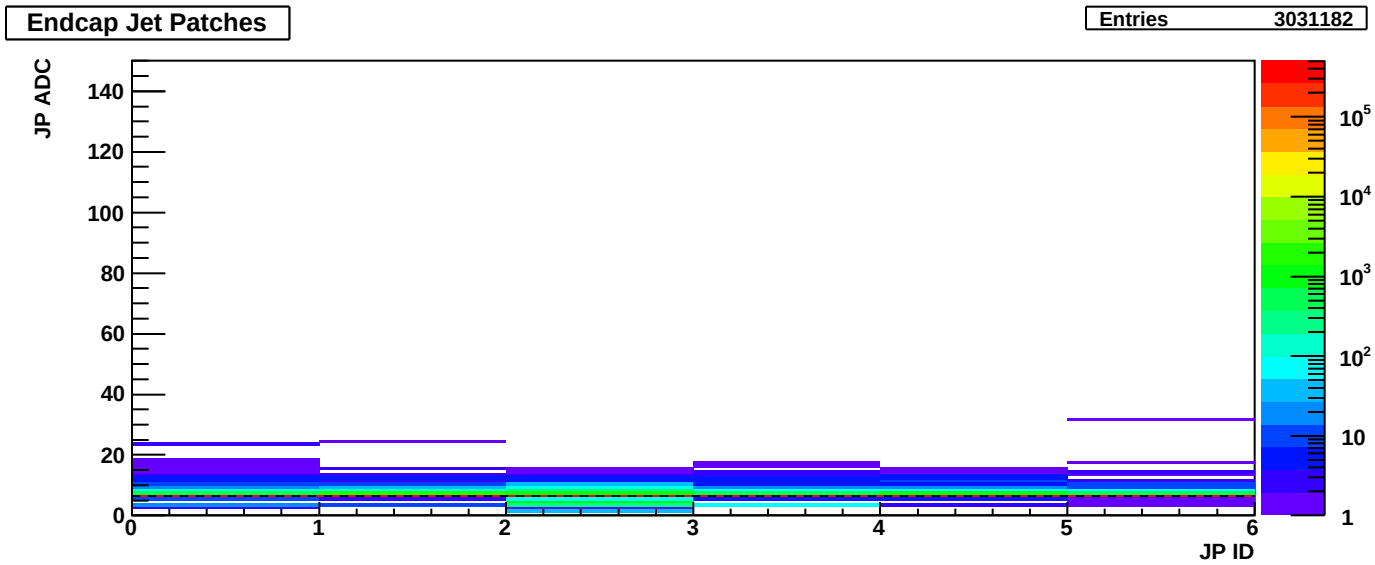

Barrel EMC L0 Input - High Tower
Entries 1.515591e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

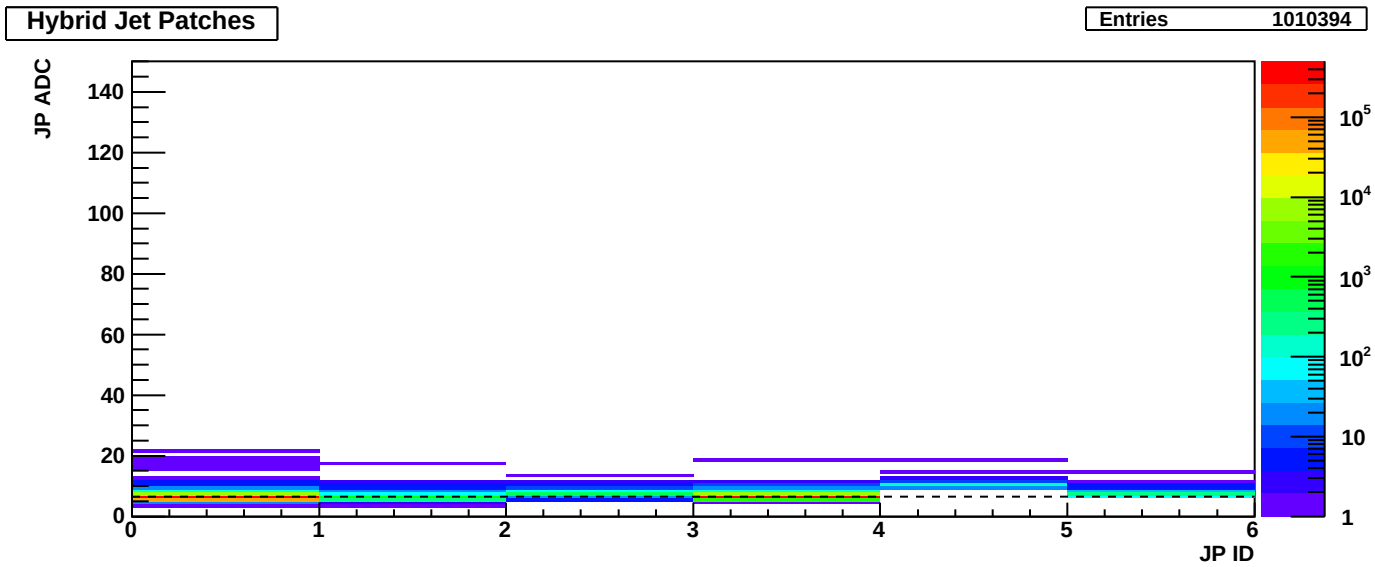

Barrel EMC L0 Input - Patch Sum
Entries 1.515591e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

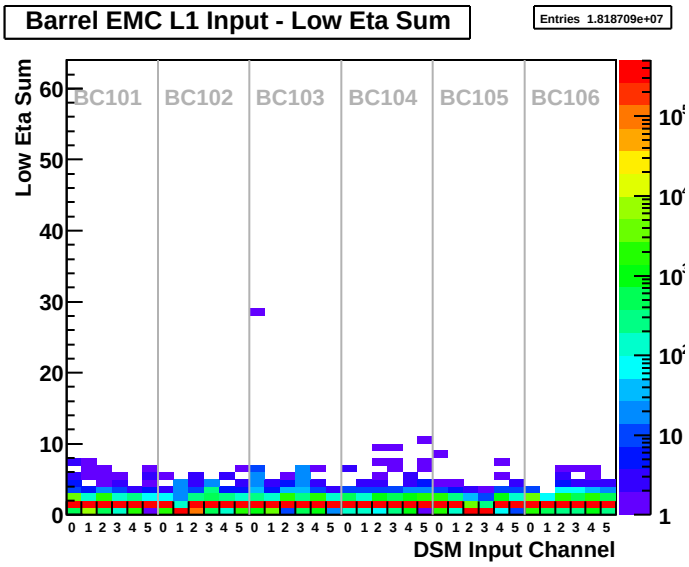

Endcap EMC L0 Input - High Tower
Entries 4.546773e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

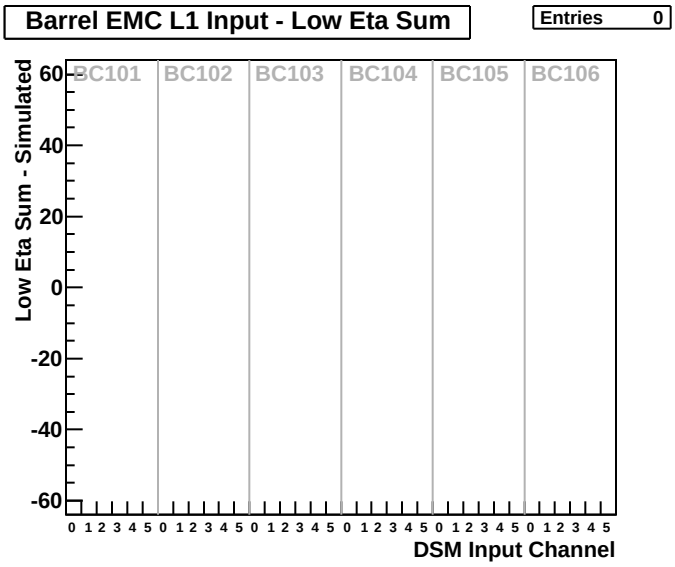

Endcap EMC L0 Input - Patch Sum
Entries 4.546773e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

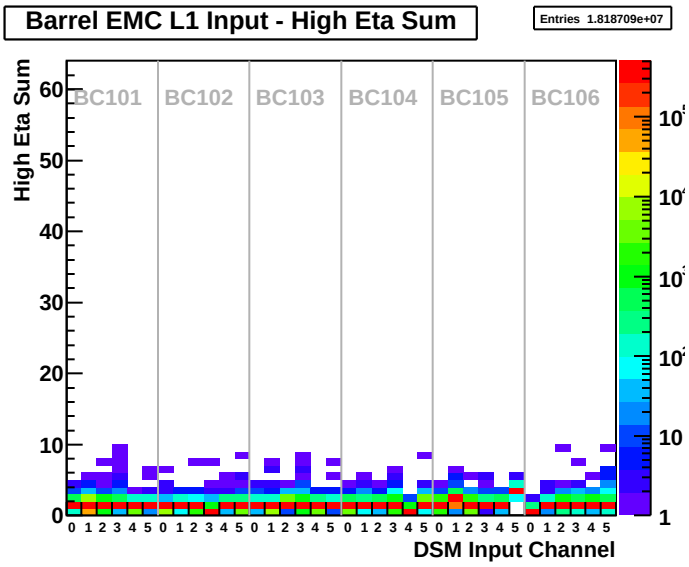

Barrel Jet Patches
Entries 9093546
JP ADC
JP ID

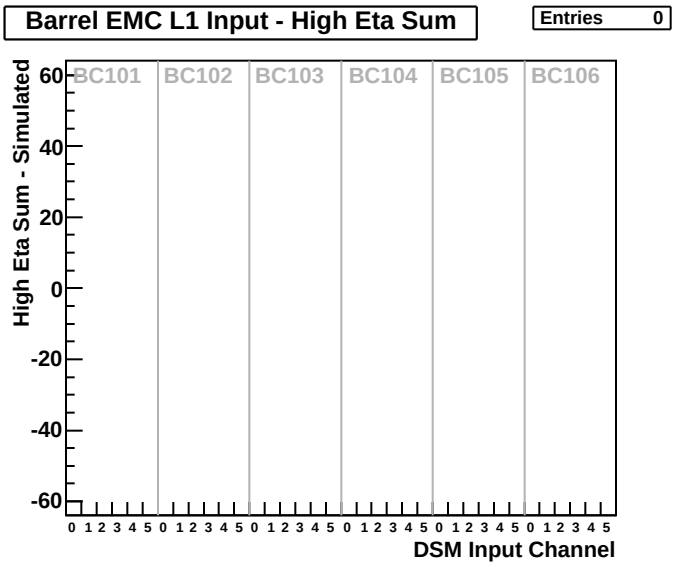

Endcap Jet Patches
Entries 3031182
JP ADC
JP ID

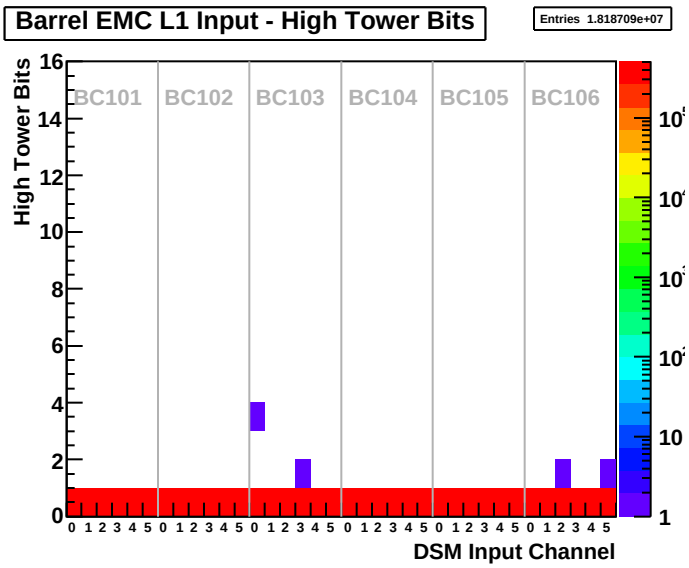

Hybrid Jet Patches
Entries 1010394
JP ADC
JP ID

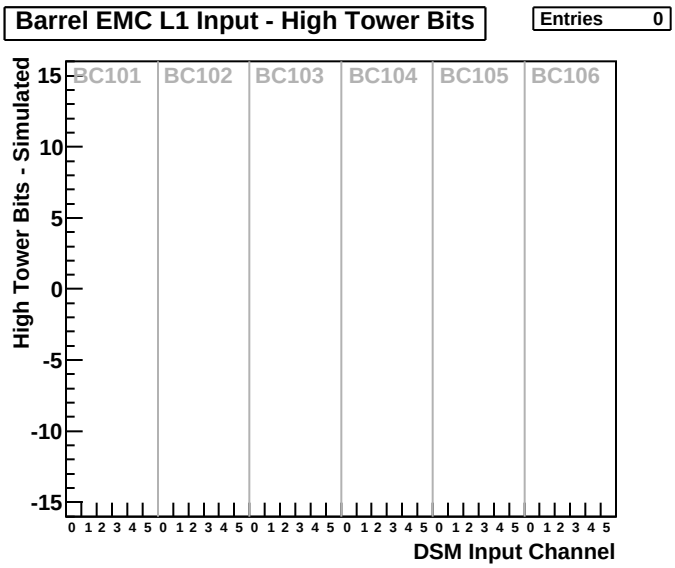

Barrel EMC L1 Input - Low Eta Sum
Entries 1.818709e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

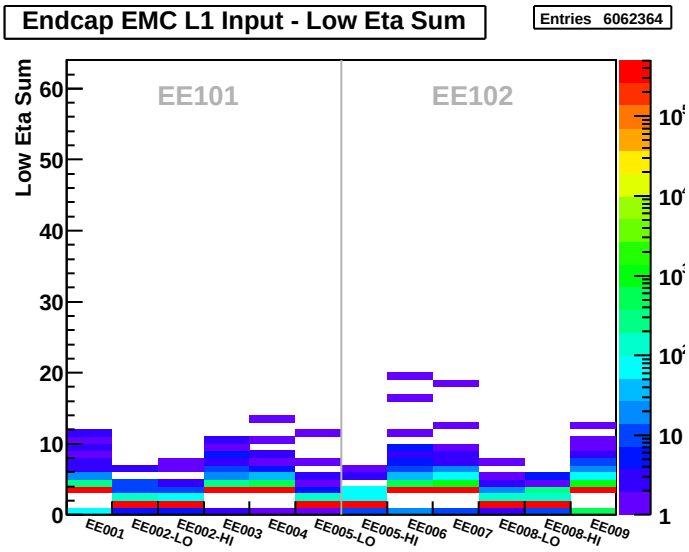

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

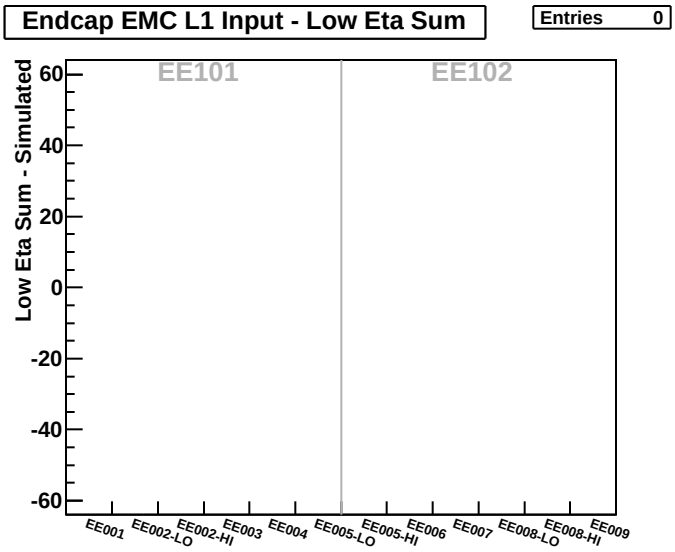

Barrel EMC L1 Input - High Eta Sum
Entries 1.818709e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

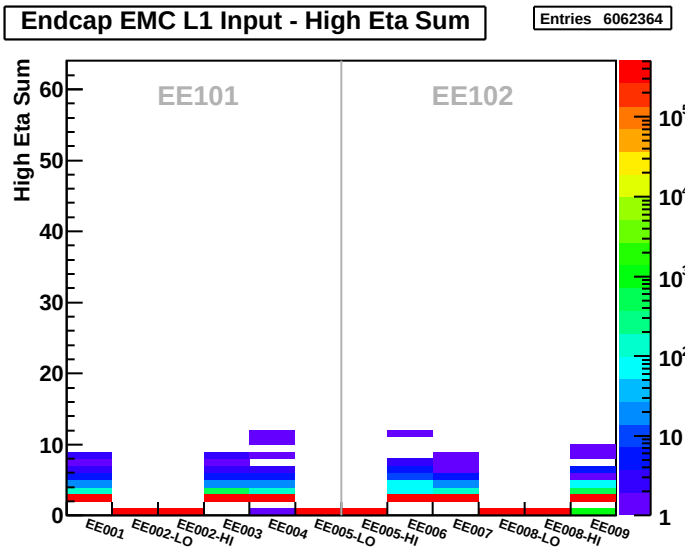

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

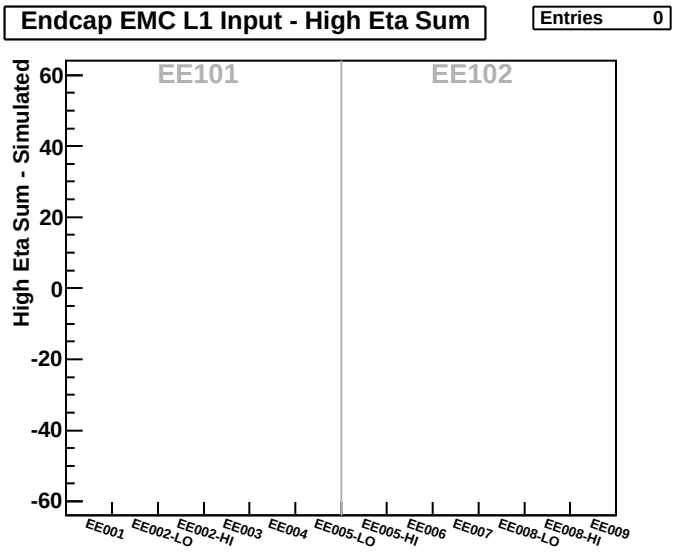

Barrel EMC L1 Input - High Tower Bits
Entries 1.818709e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

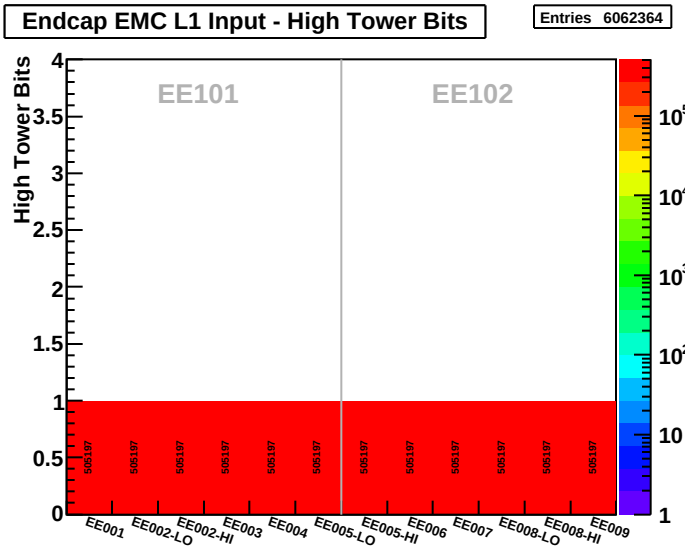

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

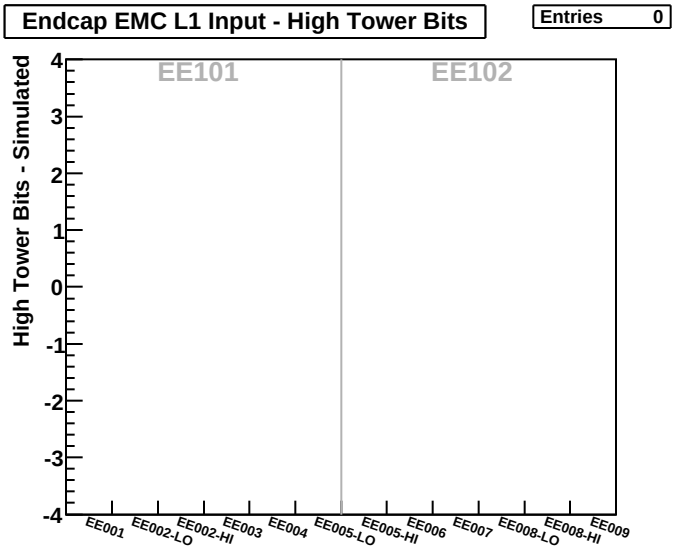

Endcap EMC L1 Input - Low Eta Sum
Entries 6062364
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

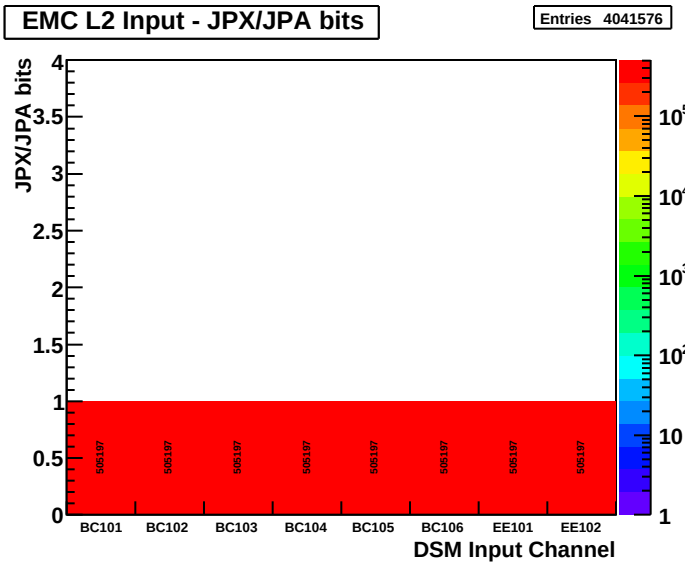

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

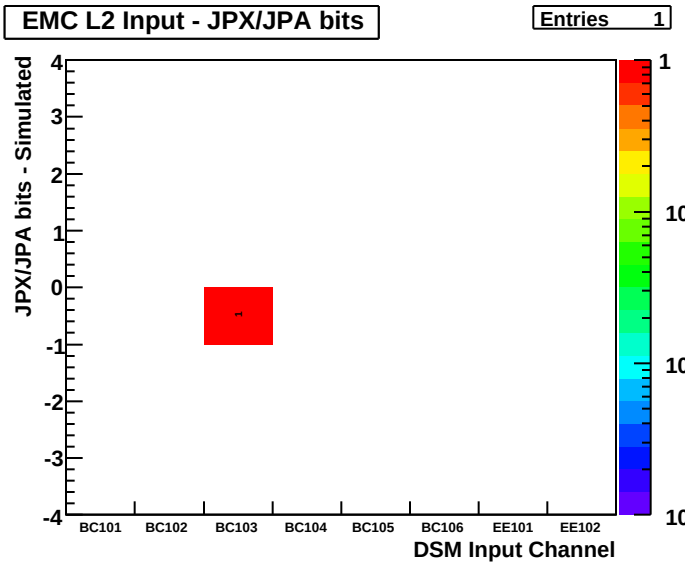

Endcap EMC L1 Input - High Eta Sum
Entries 6062364
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

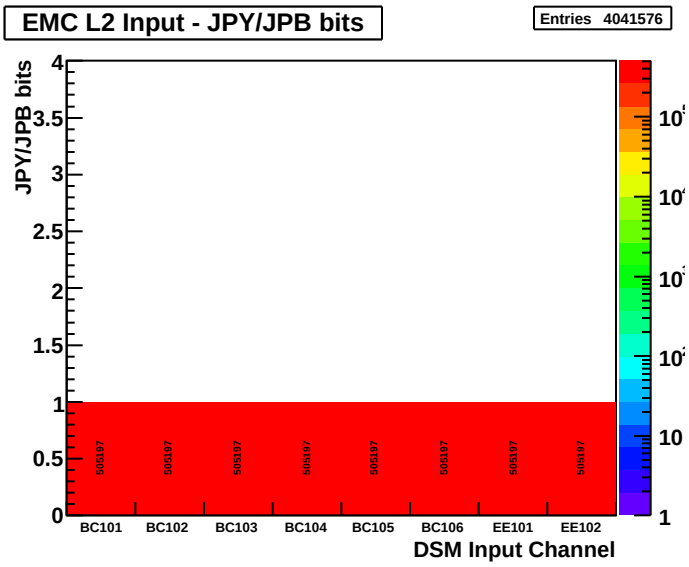

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

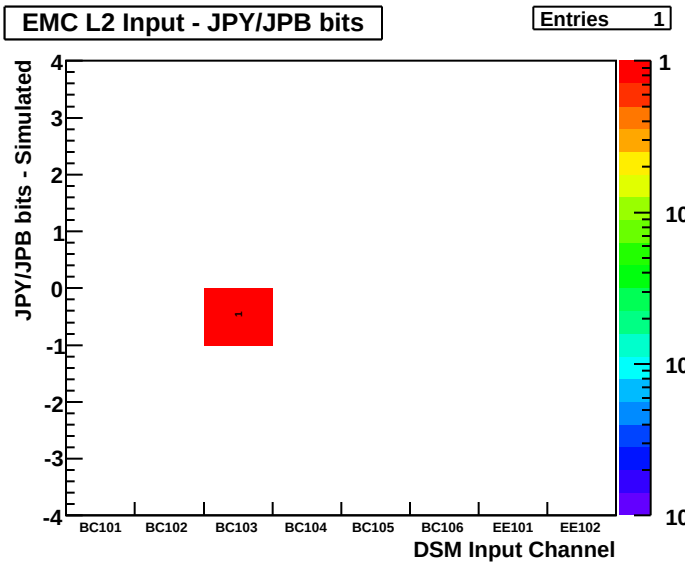

Endcap EMC L1 Input - High Tower Bits
Entries 6062364
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

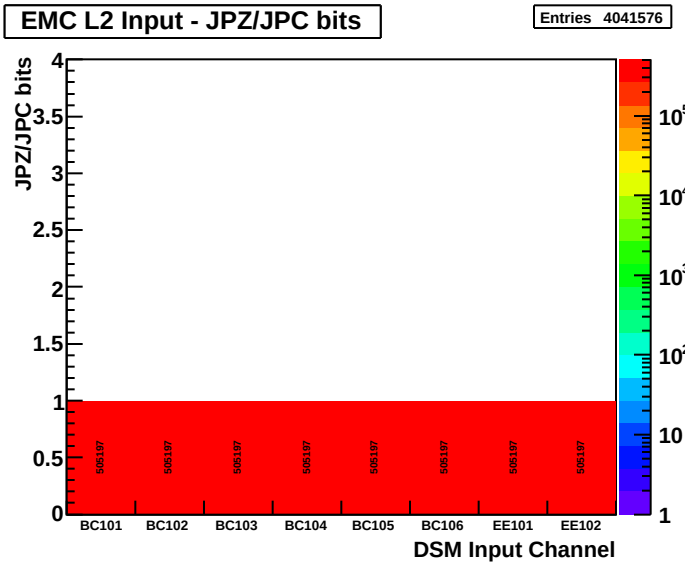

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

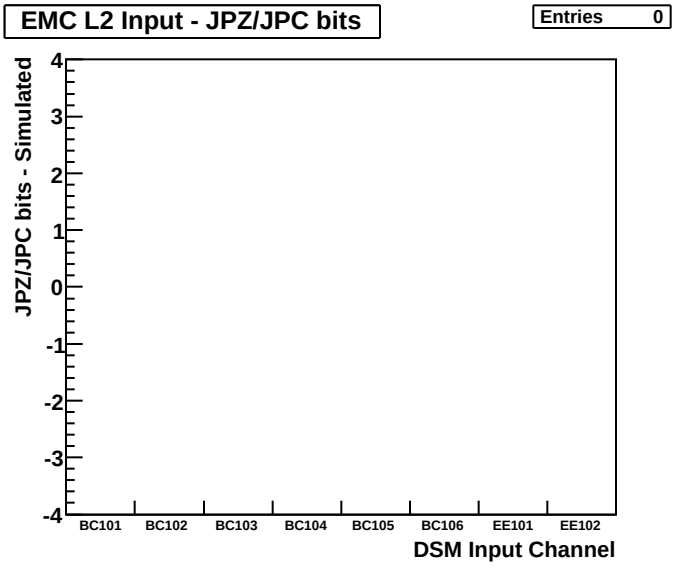

EMC L2 Input - JPX/JPA bits
Entries 4041576
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
505197

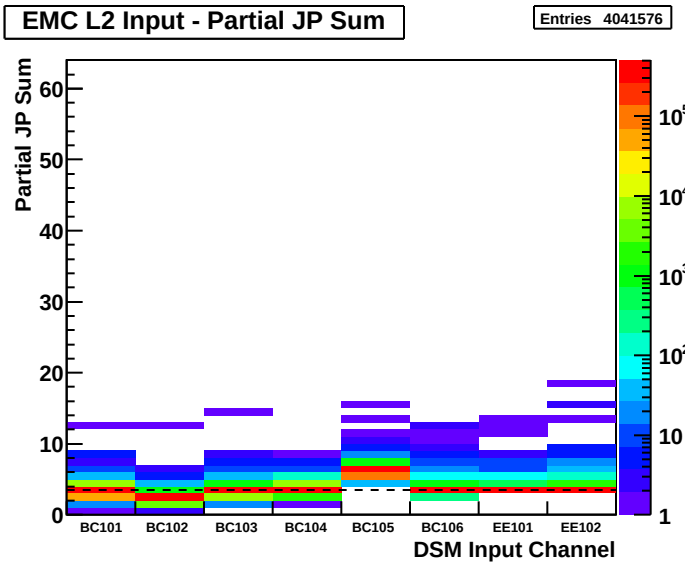

EMC L2 Input - JPX/JPA bits
Entries 1
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

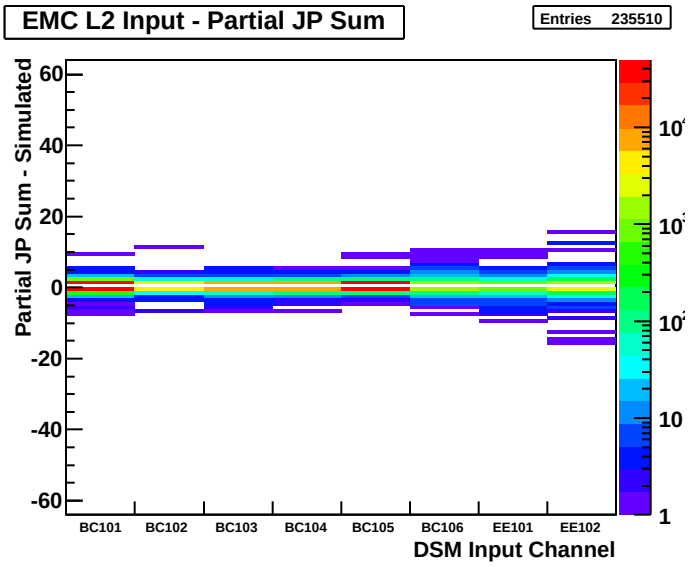

EMC L2 Input - JPY/JPB bits
Entries 4041576
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
505197

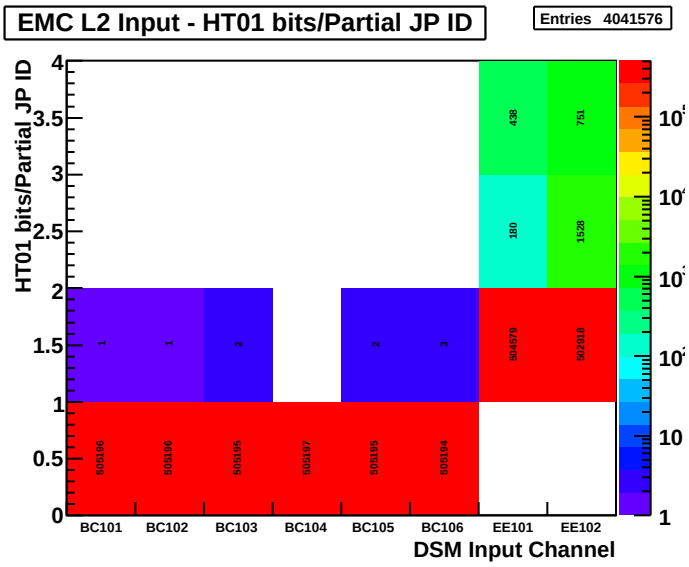

EMC L2 Input - JPY/JPB bits
Entries 1
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

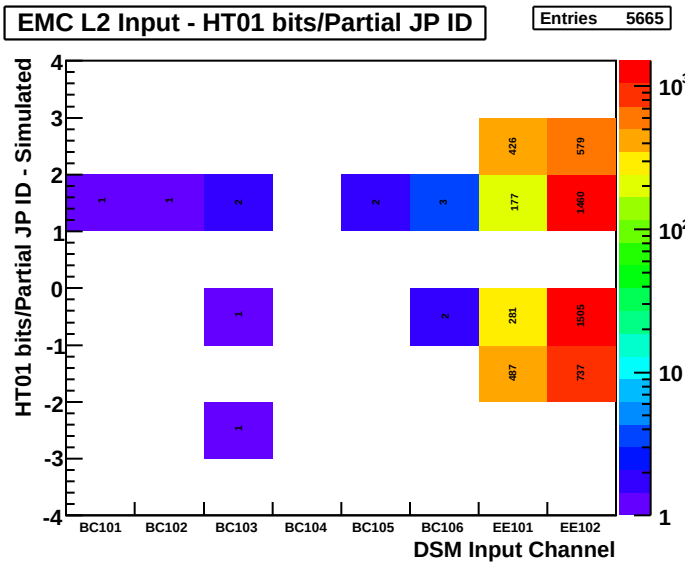

EMC L2 Input - JPZ/JPC bits
Entries 4041576
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
505197

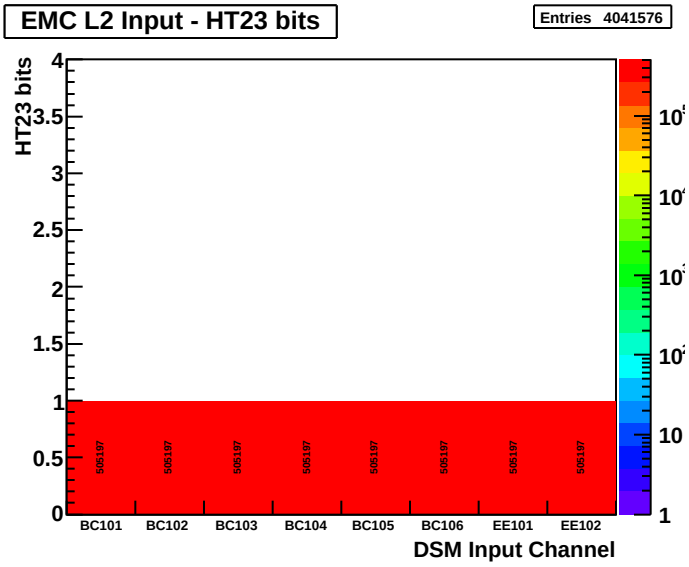

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

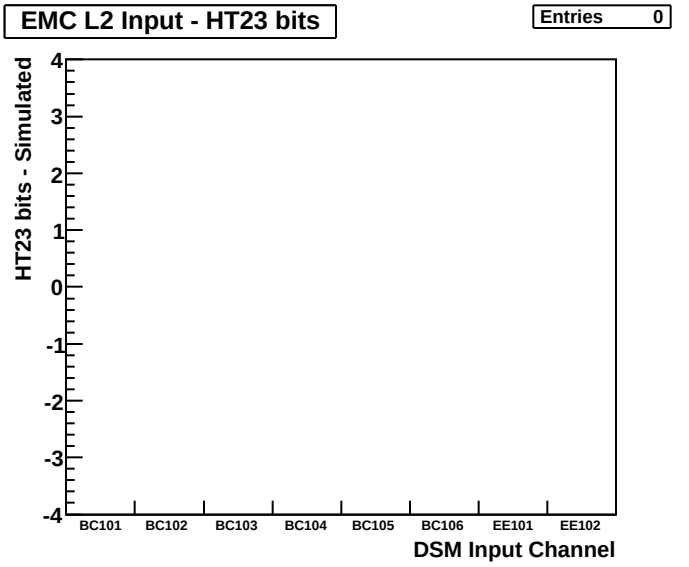

EMC L2 Input - Partial JP Sum
Entries 4041576
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

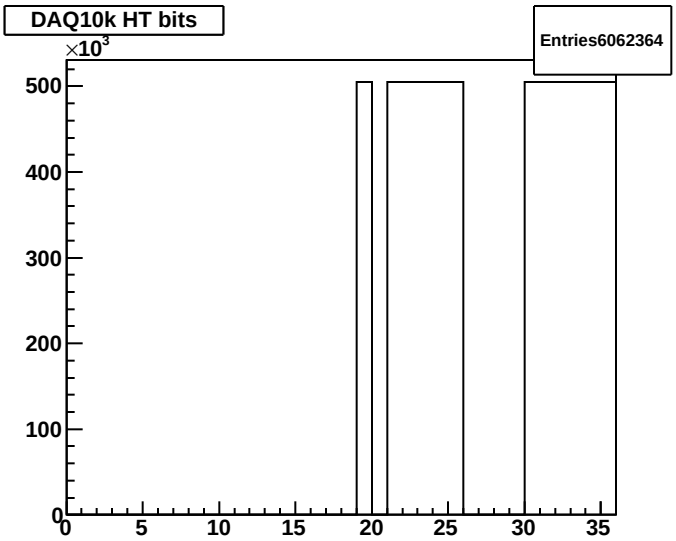

EMC L2 Input - Partial JP Sum
Entries 235510
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

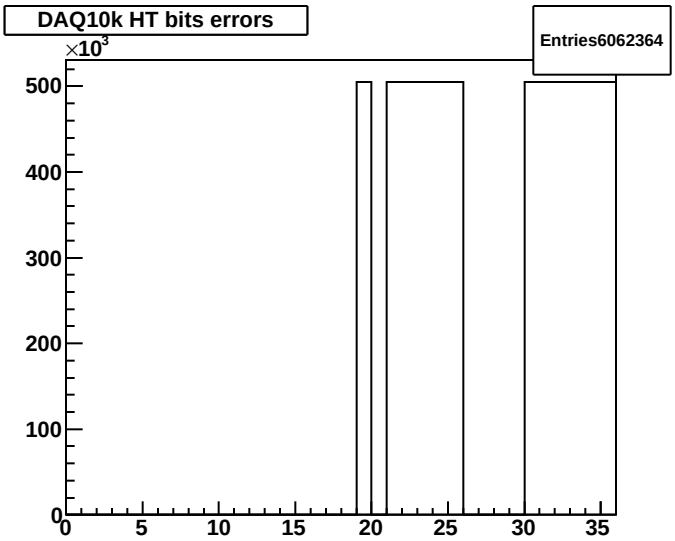

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4041576
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

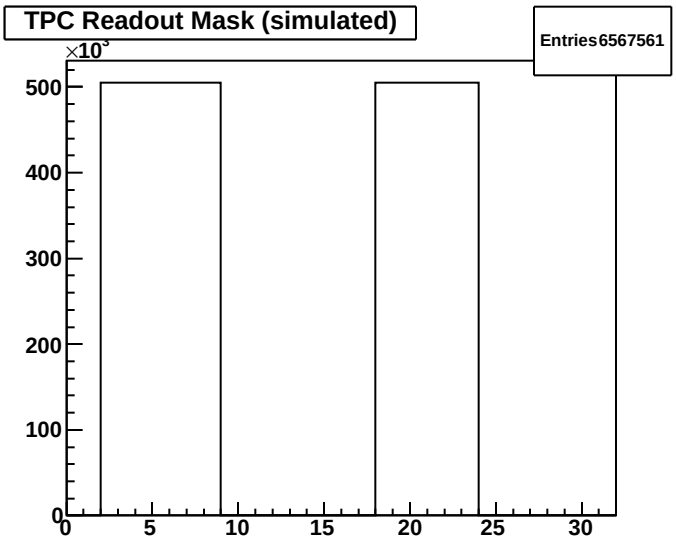

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5665
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

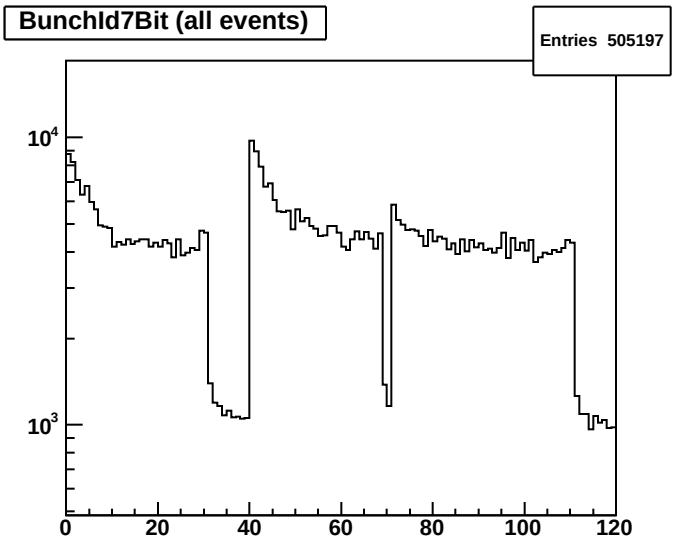

EMC L2 Input - HT23 bits
Entries 4041576
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

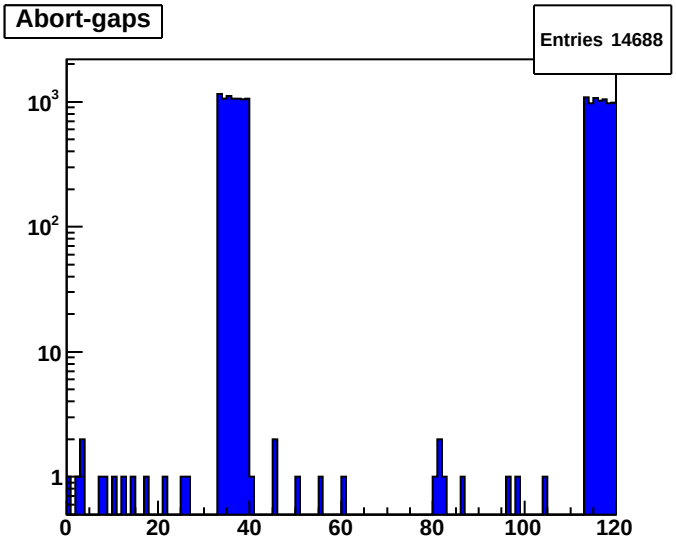

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

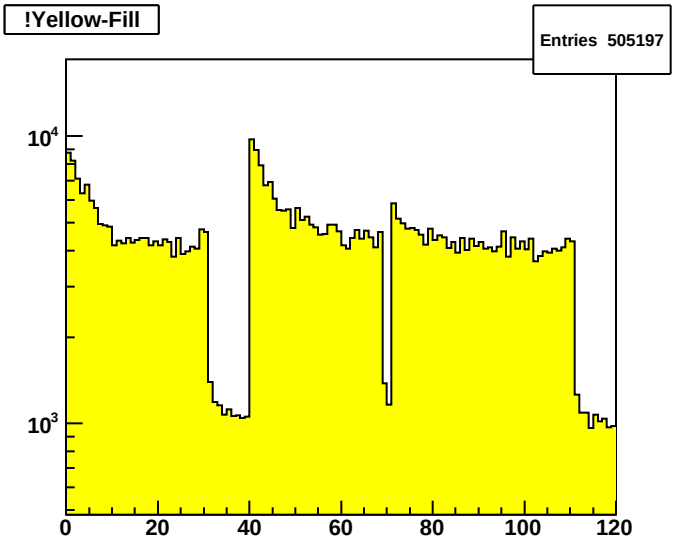

DAQ10k HT bits
Entries6062364
×10^3
500
400
300
200
100
0
0 5 10 15 20 25 30 35

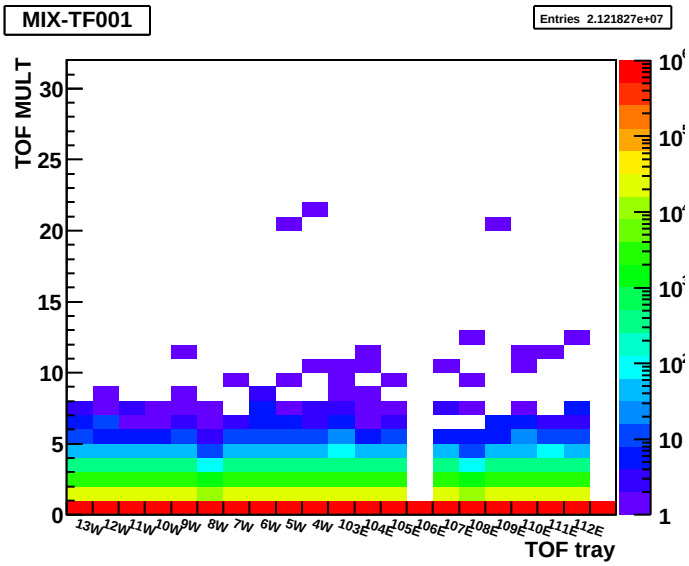

DAQ10k HT bits errors
Entries6062364
×10^3
500
400
300
200
100
0
0 5 10 15 20 25 30 35

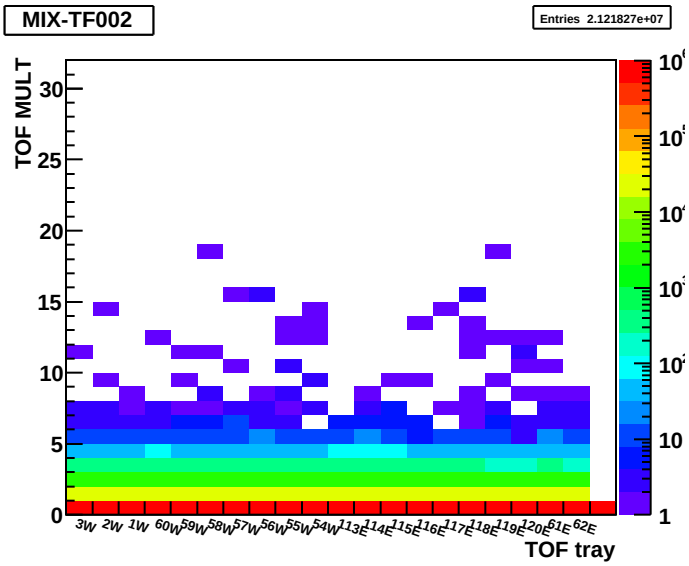

TPC Readout Mask (simulated)
Entries6567561
×10^3
500
400
300
200
100
0
0 5 10 15 20 25 30

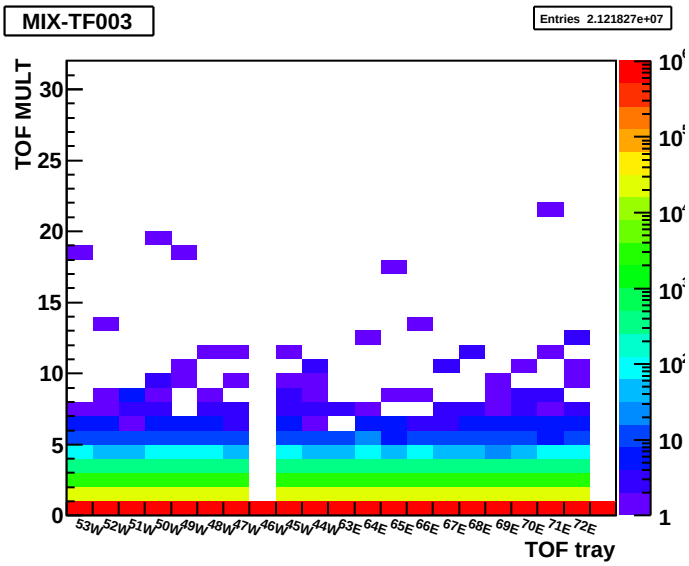

BunchId7Bit (all events)
Entries 505197
10^4
10^3
0 20 40 60 80 100 120

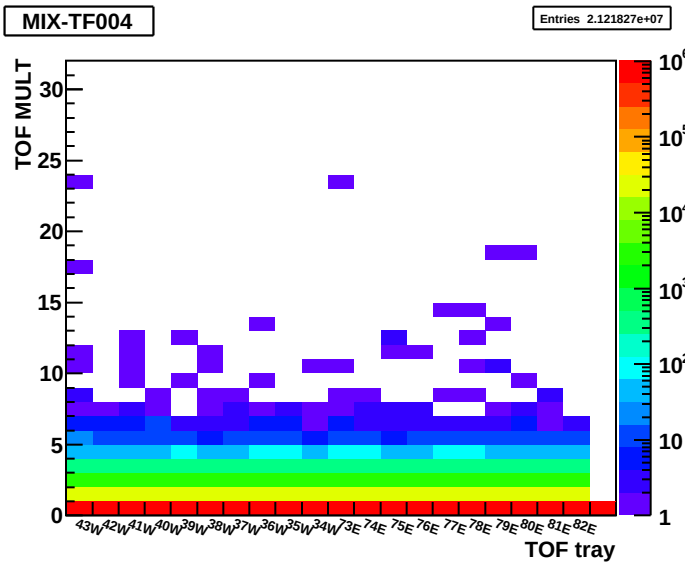

Abort-gaps
Entries 14688
10^3
10^2
10
1
0 20 40 60 80 100 120

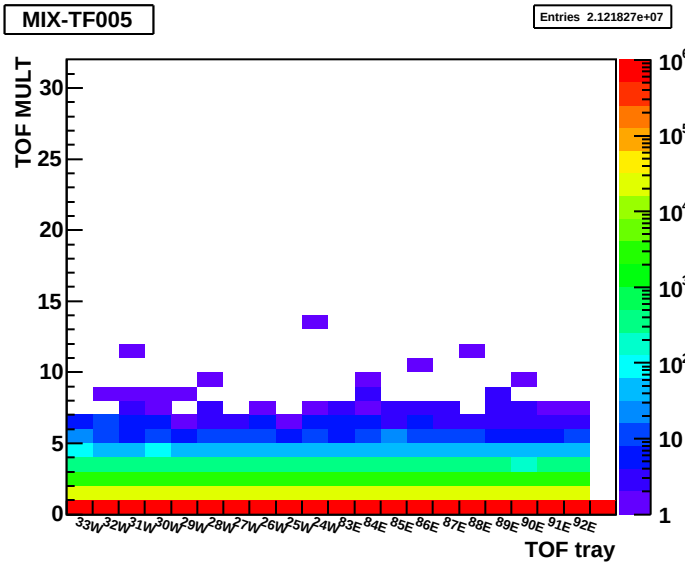

!Yellow-Fill
Entries 505197
10^4
10^3
0 20 40 60 80 100 120

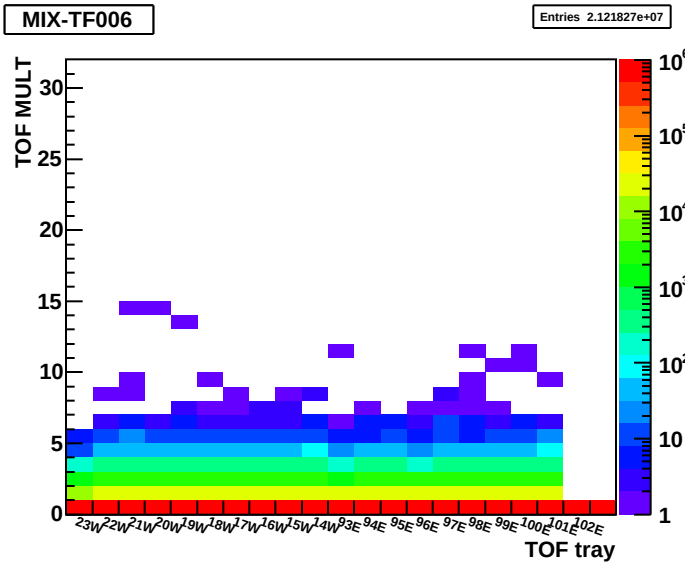

MIX-TF001
Entries 2.121827e+07
TOF MULT
TOF tray

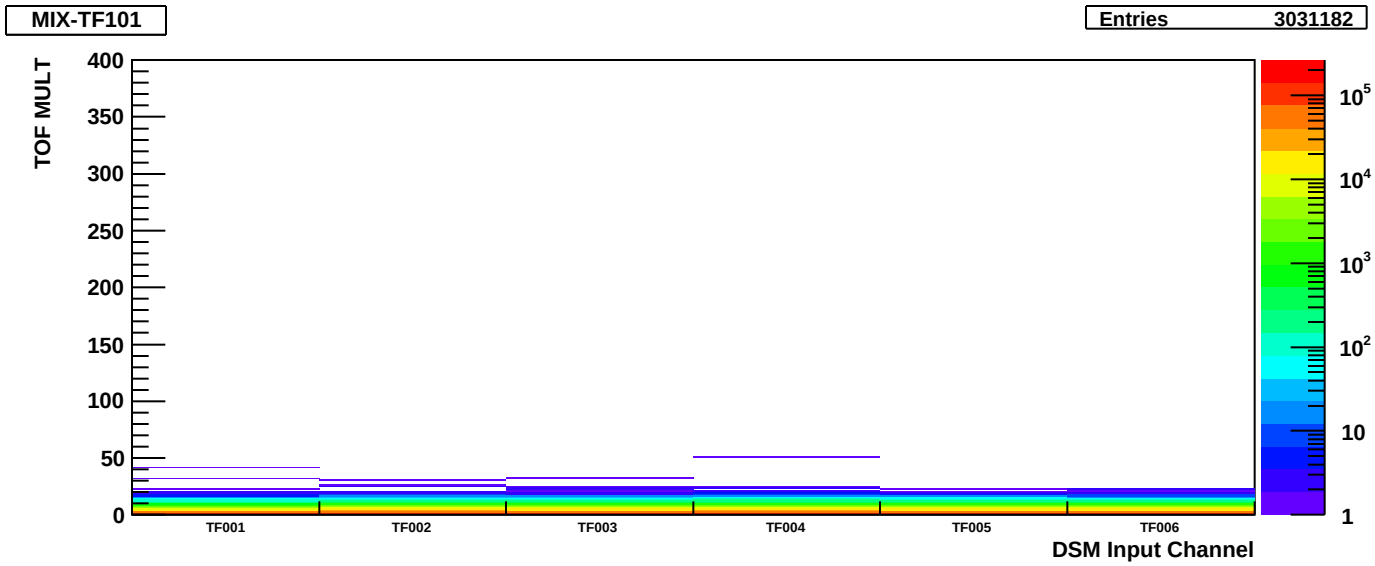

MIX-TF002
Entries 2.121827e+07
TOF MULT
TOF tray

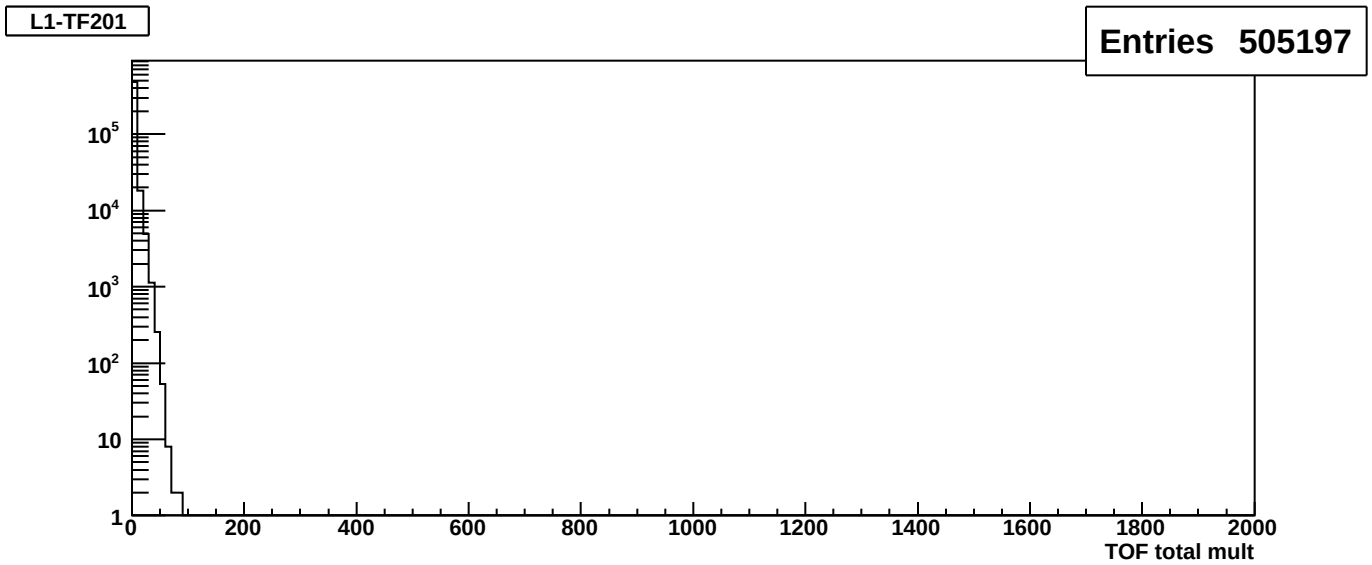

MIX-TF003
Entries 2.121827e+07
TOF MULT
TOF tray

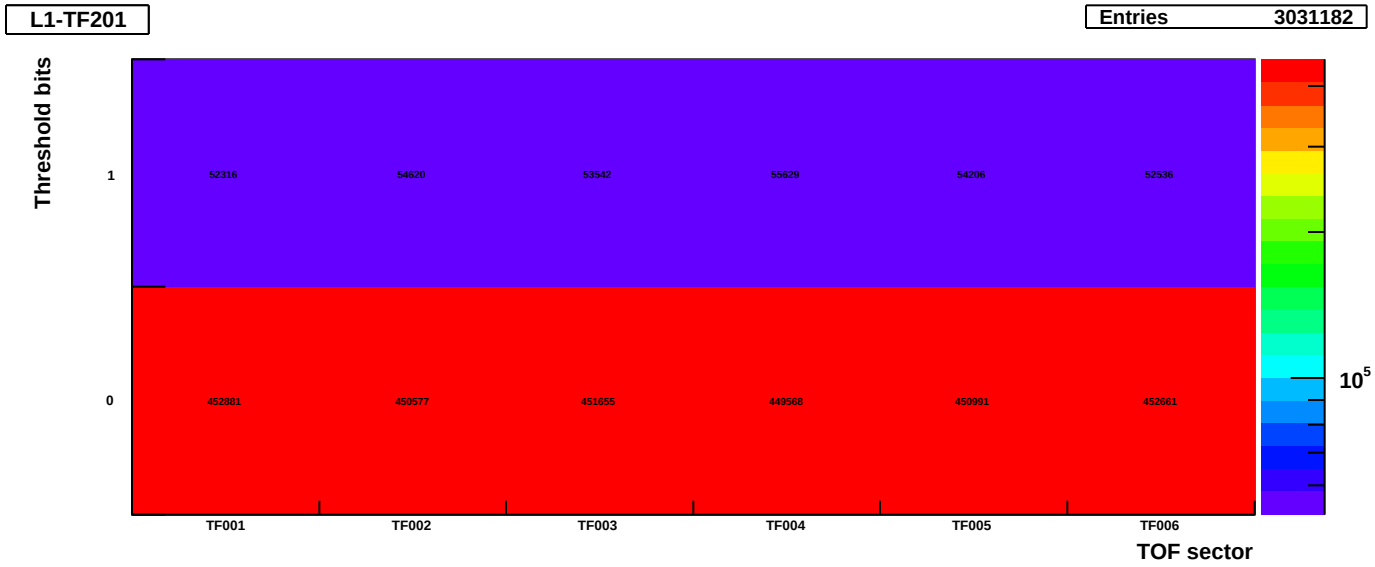

MIX-TF004
Entries 2.121827e+07
TOF MULT
TOF tray

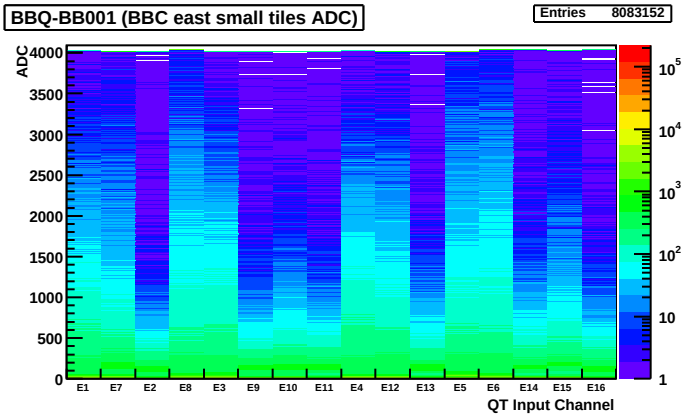

MIX-TF005
Entries 2.121827e+07
TOF MULT
TOF tray

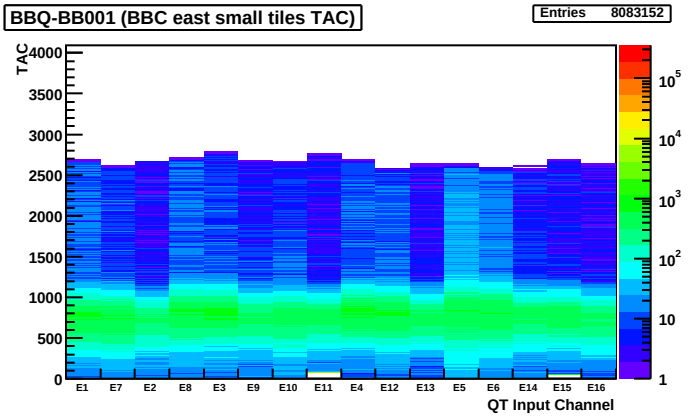

MIX-TF006
Entries 2.121827e+07
TOF MULT
TOF tray

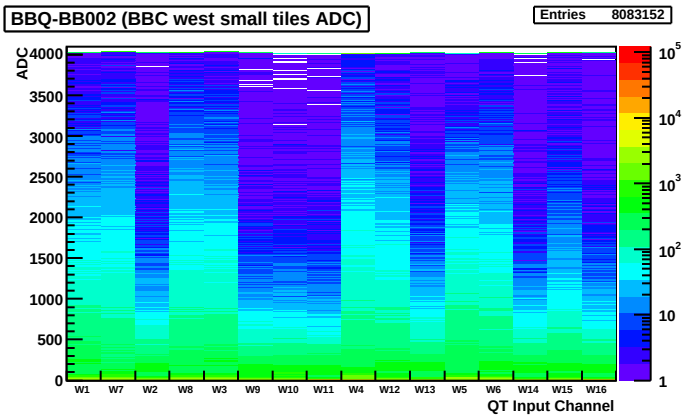

MIX-TF101
Entries 3031182
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

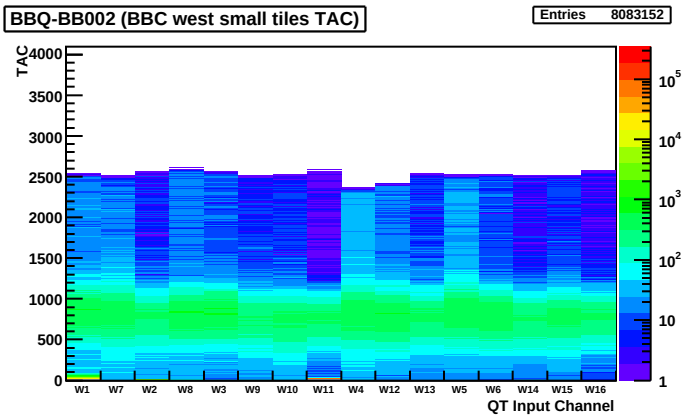

L1-TF201
Entries 505197
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

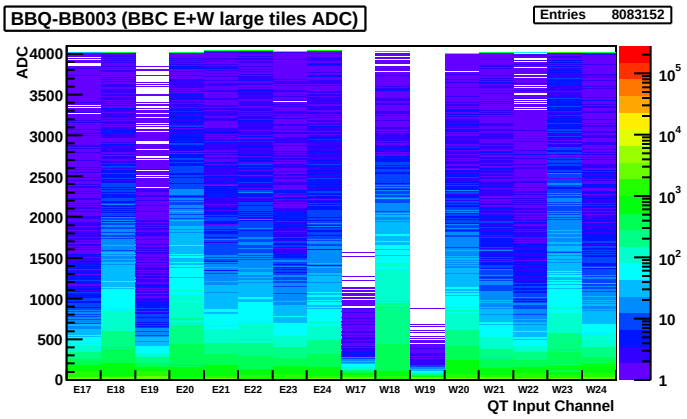

L1-TF201
Entries 3031182
Threshold bits
1
0
52316
54620
53542
55629
54206
52536
452881
450577
451655
449568
450991
452661
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

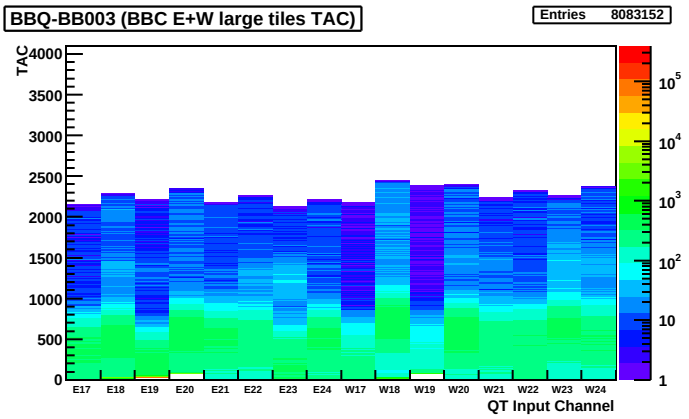

BBQ-BB001 (BBC east small tiles ADC)
Entries 8083152
ADC
QT Input Channel

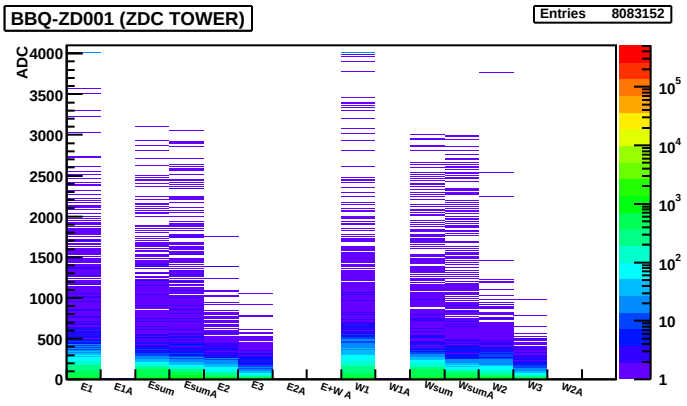

BBQ-BB001 (BBC east small tiles TAC)
Entries 8083152
TAC
QT Input Channel

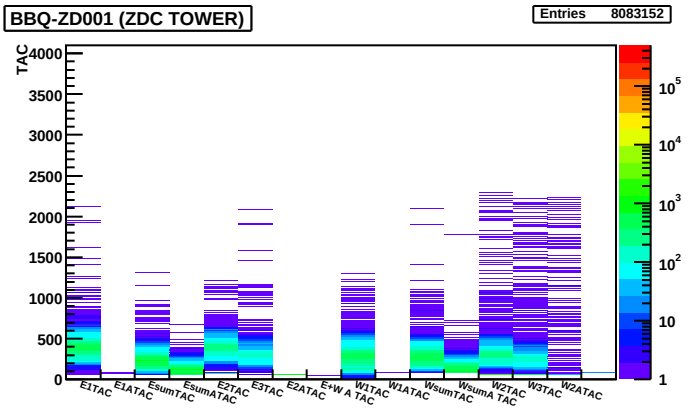

BBQ-BB002 (BBC west small tiles ADC)
Entries 8083152
ADC
QT Input Channel

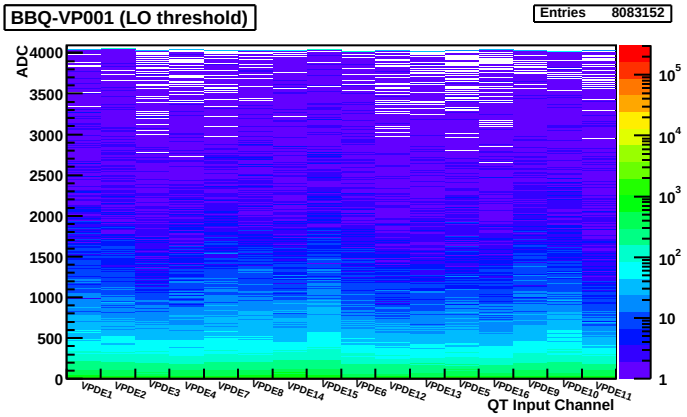

BBQ-BB002 (BBC west small tiles TAC)
Entries 8083152
TAC
QT Input Channel

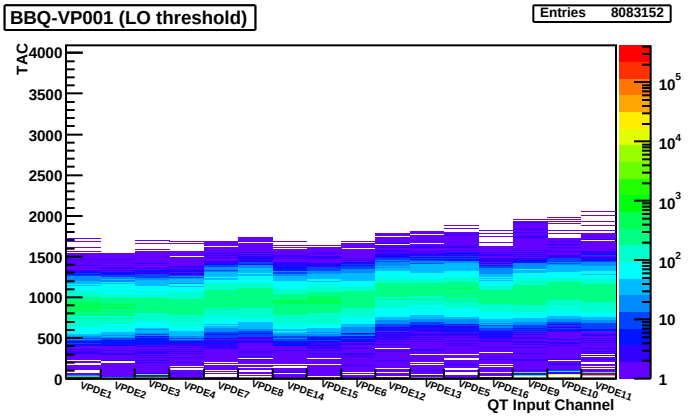

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 8083152
ADC
QT Input Channel

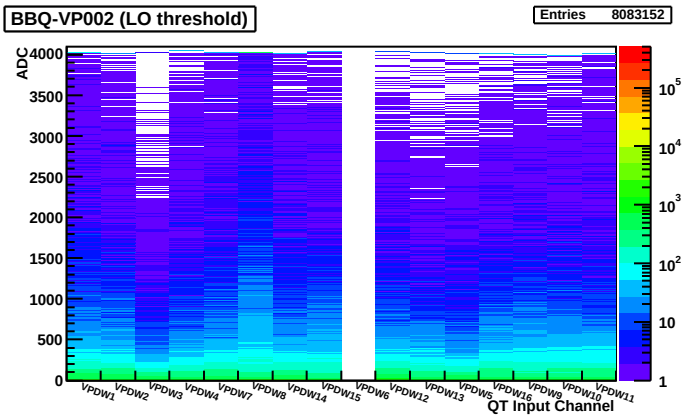

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 8083152
TAC
QT Input Channel

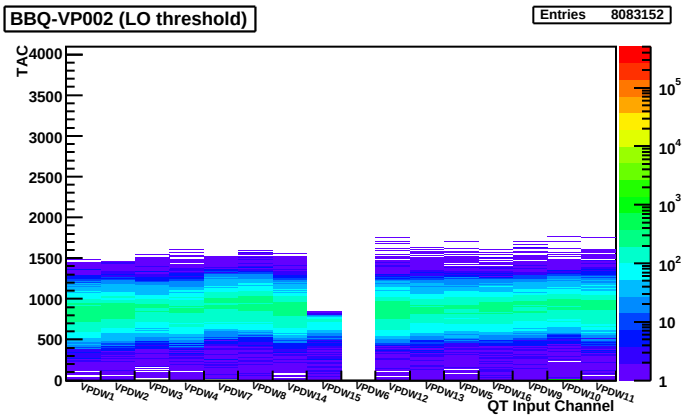

BBQ-ZD001 (ZDC TOWER)
Entries 8083152
ADC

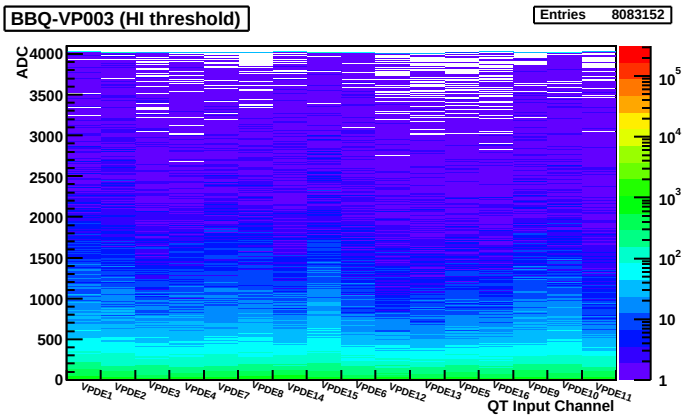

BBQ-ZD001 (ZDC TOWER)
Entries 8083152
TAC

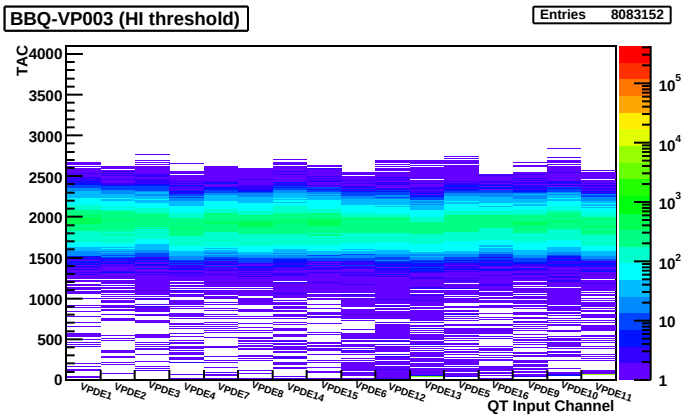

BBQ-VP001 (LO threshold)
Entries 8083152
ADC
QT Input Channel

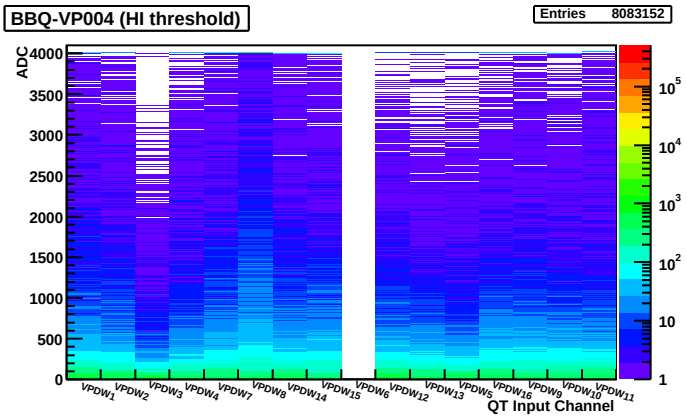

BBQ-VP001 (LO threshold)
Entries 8083152
TAC
QT Input Channel

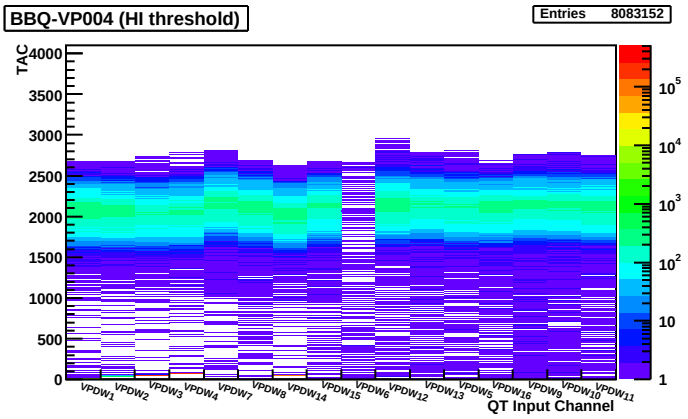

BBQ-VP002 (LO threshold)
Entries 8083152
ADC
QT Input Channel

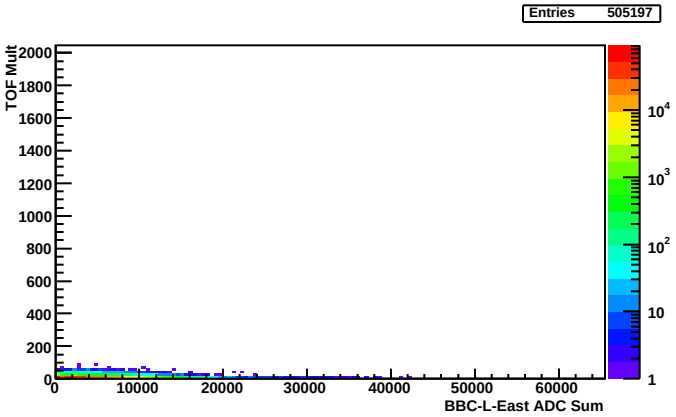

BBQ-VP002 (LO threshold)
Entries 8083152
TAC
QT Input Channel

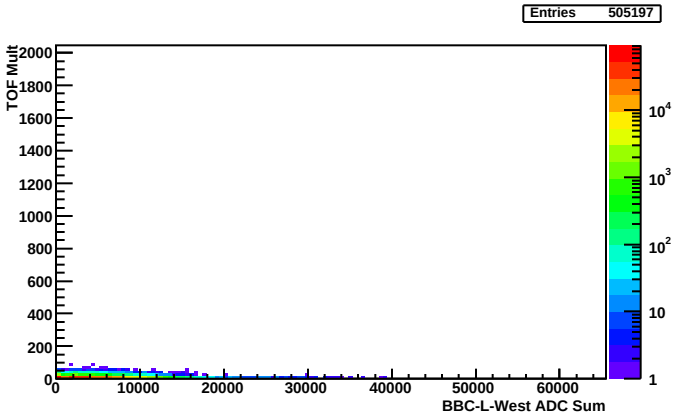

BBQ-VP003 (HI threshold)
Entries 8083152
ADC
QT Input Channel

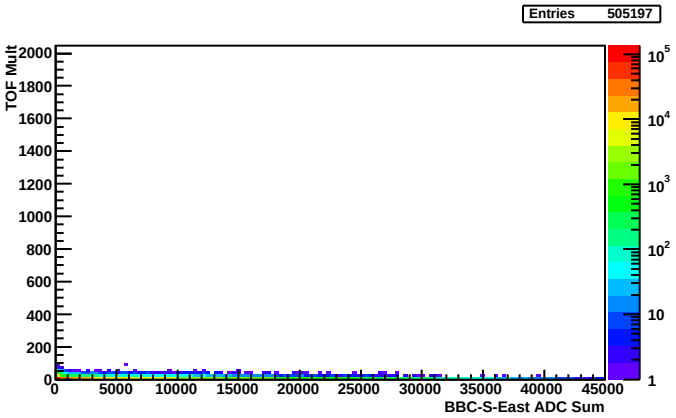

BBQ-VP003 (HI threshold)
Entries 8083152
TAC
QT Input Channel

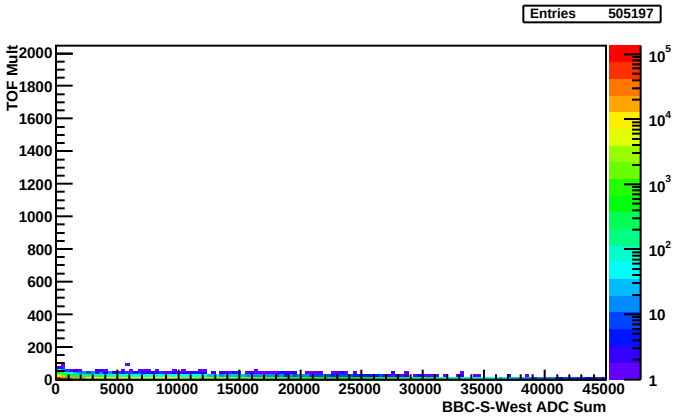

BBQ-VP004 (HI threshold)
Entries 8083152
ADC
QT Input Channel

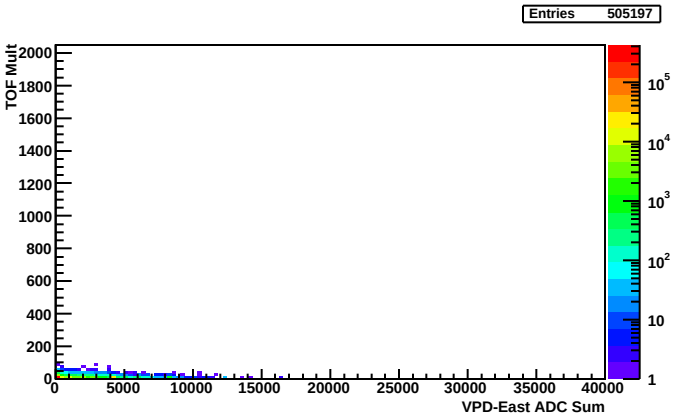

BBQ-VP004 (HI threshold)
Entries 8083152
TAC
QT Input Channel

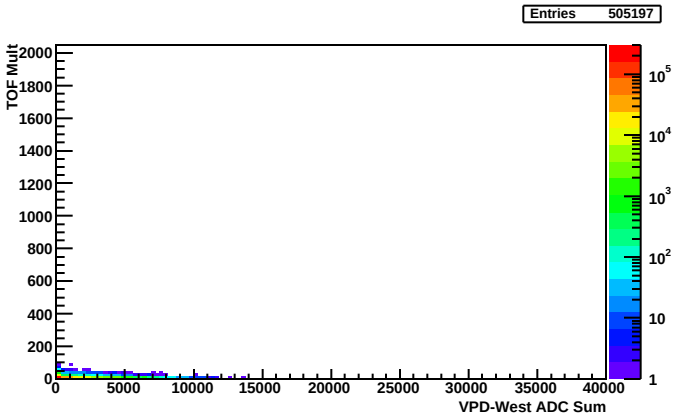

Entries 505197
TOF Mult
BBC-L-East ADC Sum

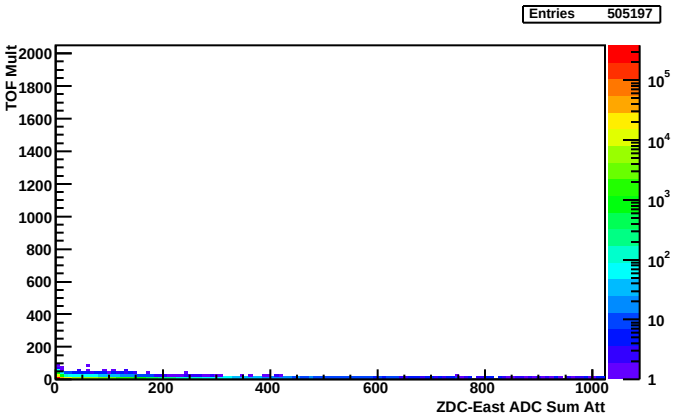

Entries 505197
TOF Mult
BBC-L-West ADC Sum

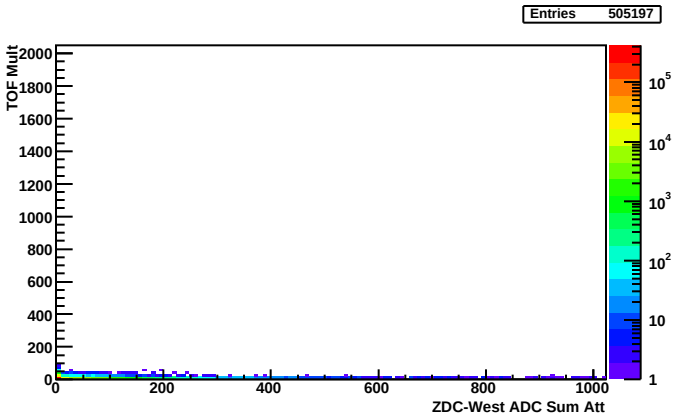

Entries 505197
TOF Mult
BBC-S-East ADC Sum

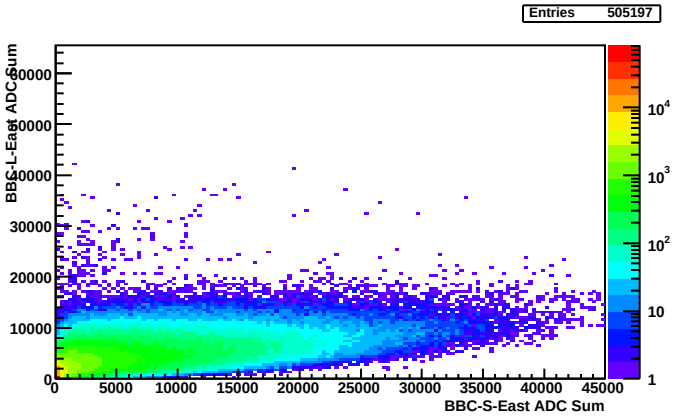

Entries 505197
TOF Mult
BBC-S-West ADC Sum

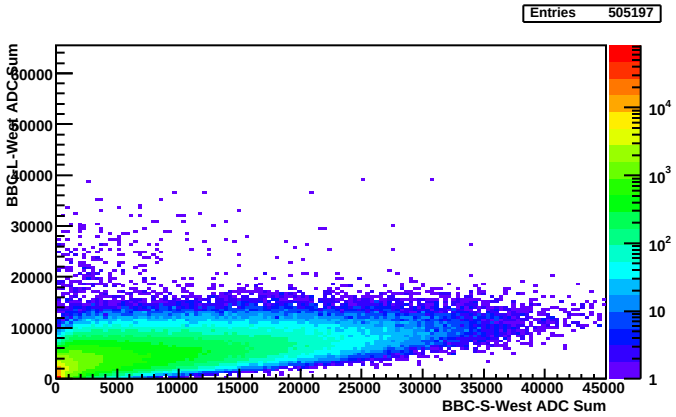

Entries 505197
TOF Mult
VPD-East ADC Sum

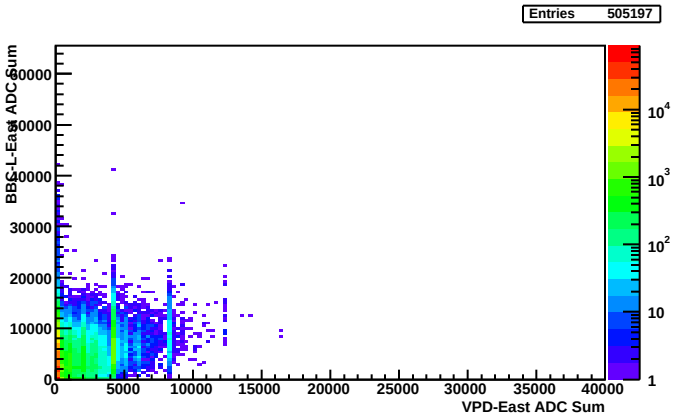

Entries 505197
TOF Mult
VPD-West ADC Sum

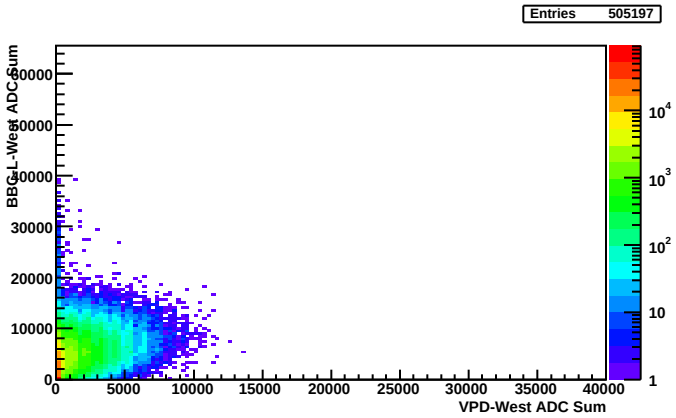

Entries 505197
TOF Mult
ZDC-East ADC Sum Att

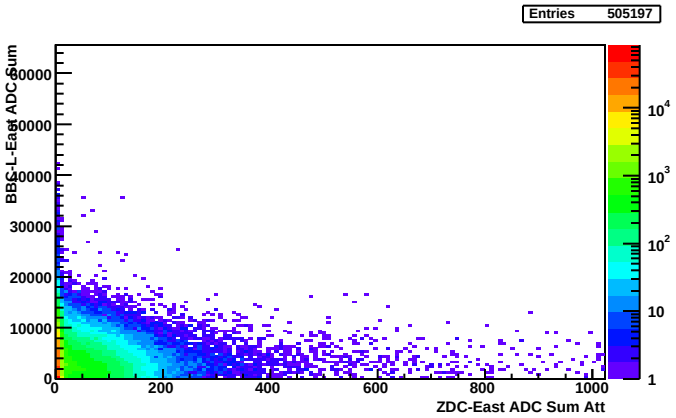

Entries 505197
TOF Mult
ZDC-West ADC Sum Att

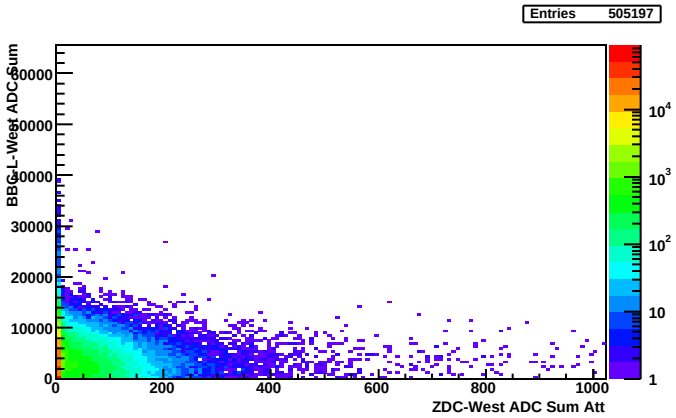

Entries 505197
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 505197
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 505197
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 505197
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 505197
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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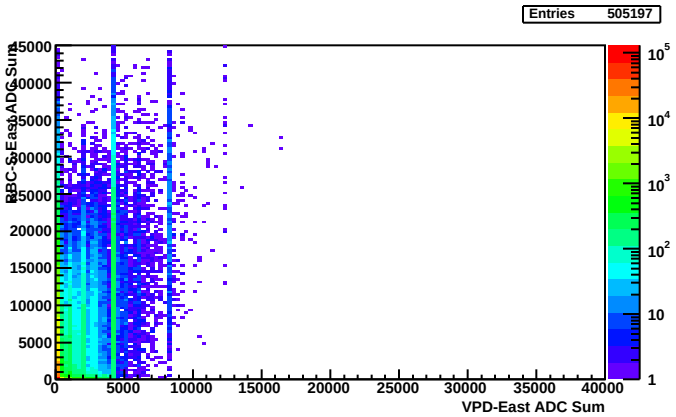
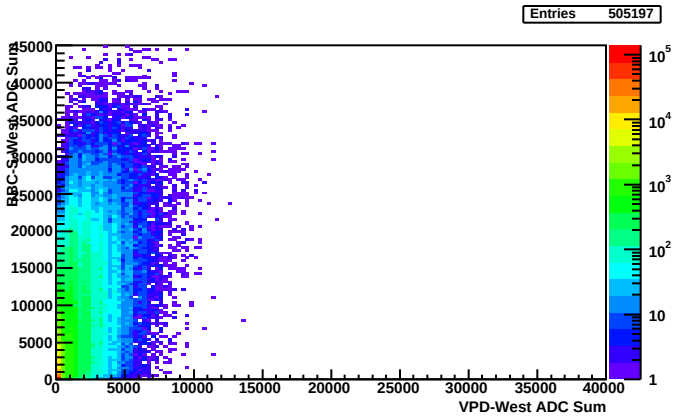
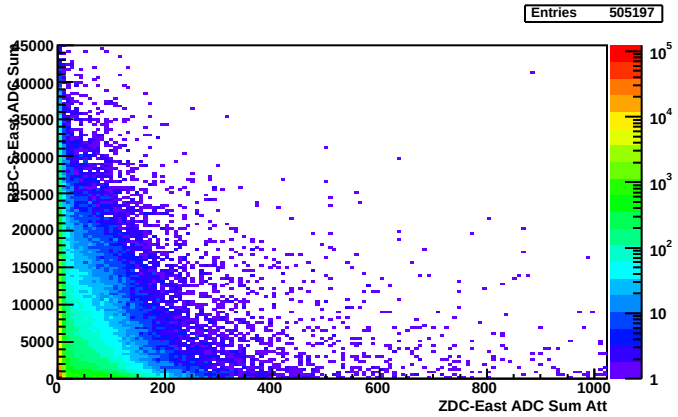
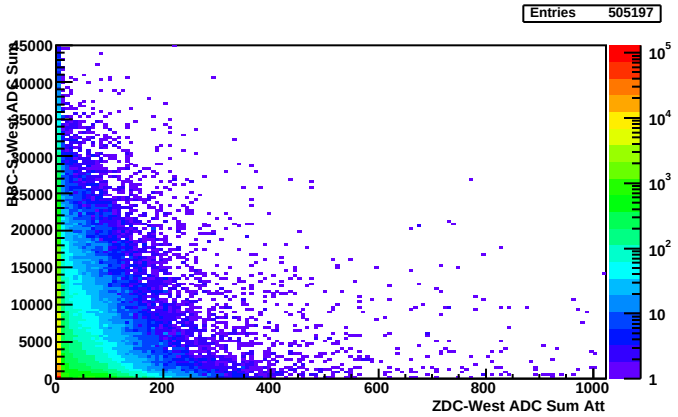
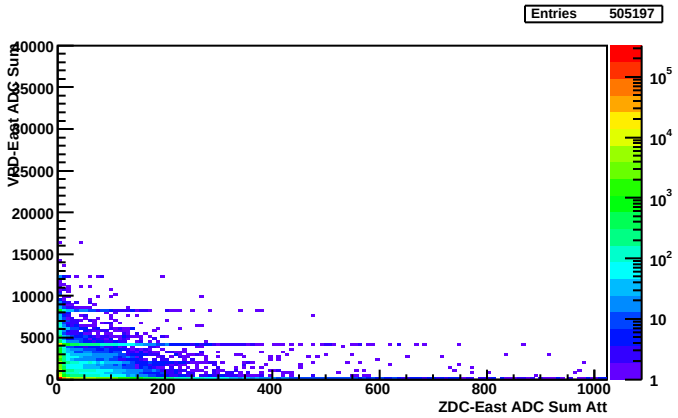
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

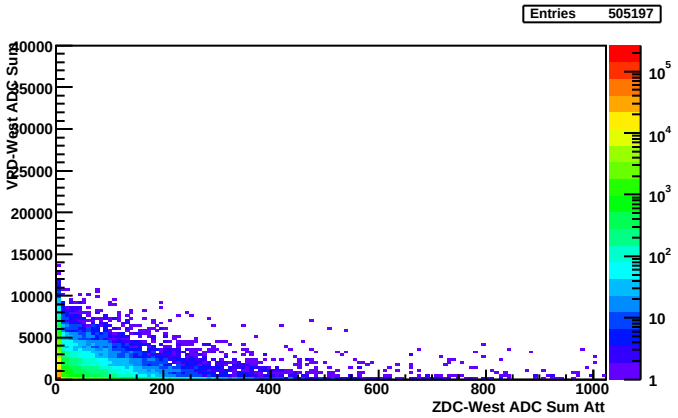

Entries 505197
BBC-S-East ADC Sum
VPD-East ADC Sum

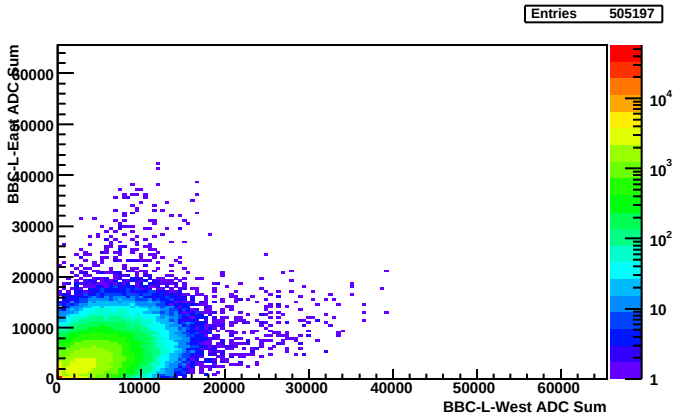

Entries 505197
BBC-S-West ADC Sum
VPD-West ADC Sum

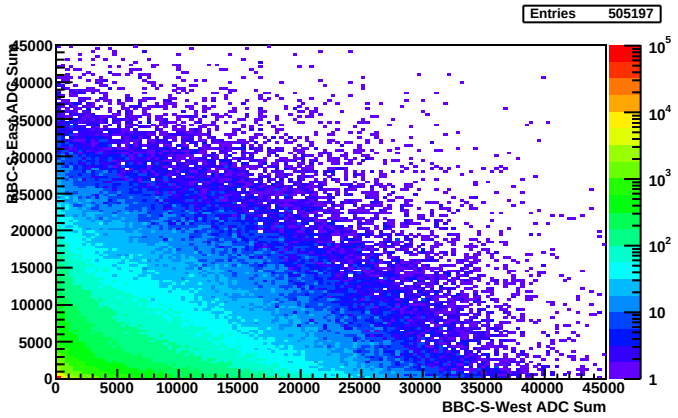

Entries 505197
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

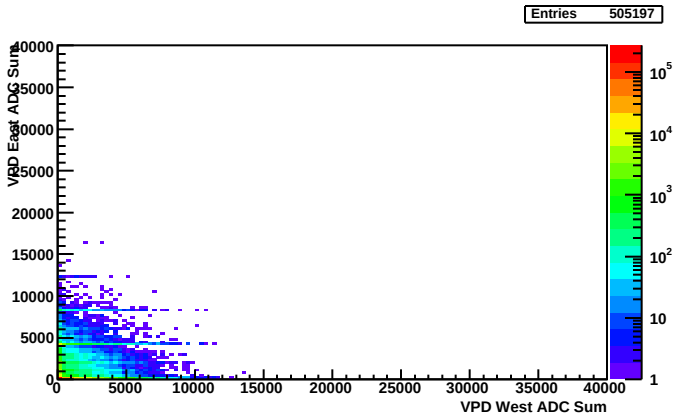

Entries 505197
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

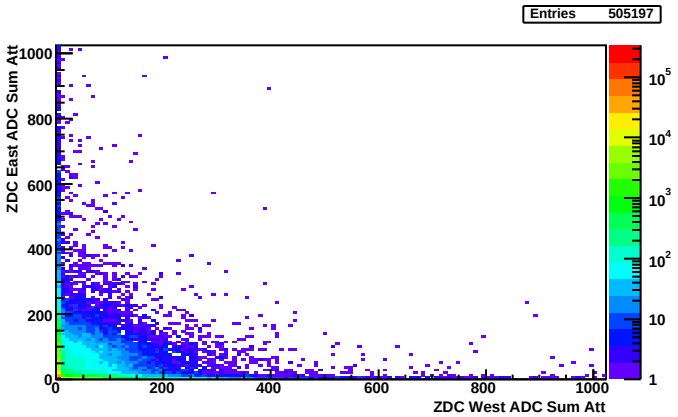

Entries 505197
VPD-East ADC Sum
ZDC-East ADC Sum Att

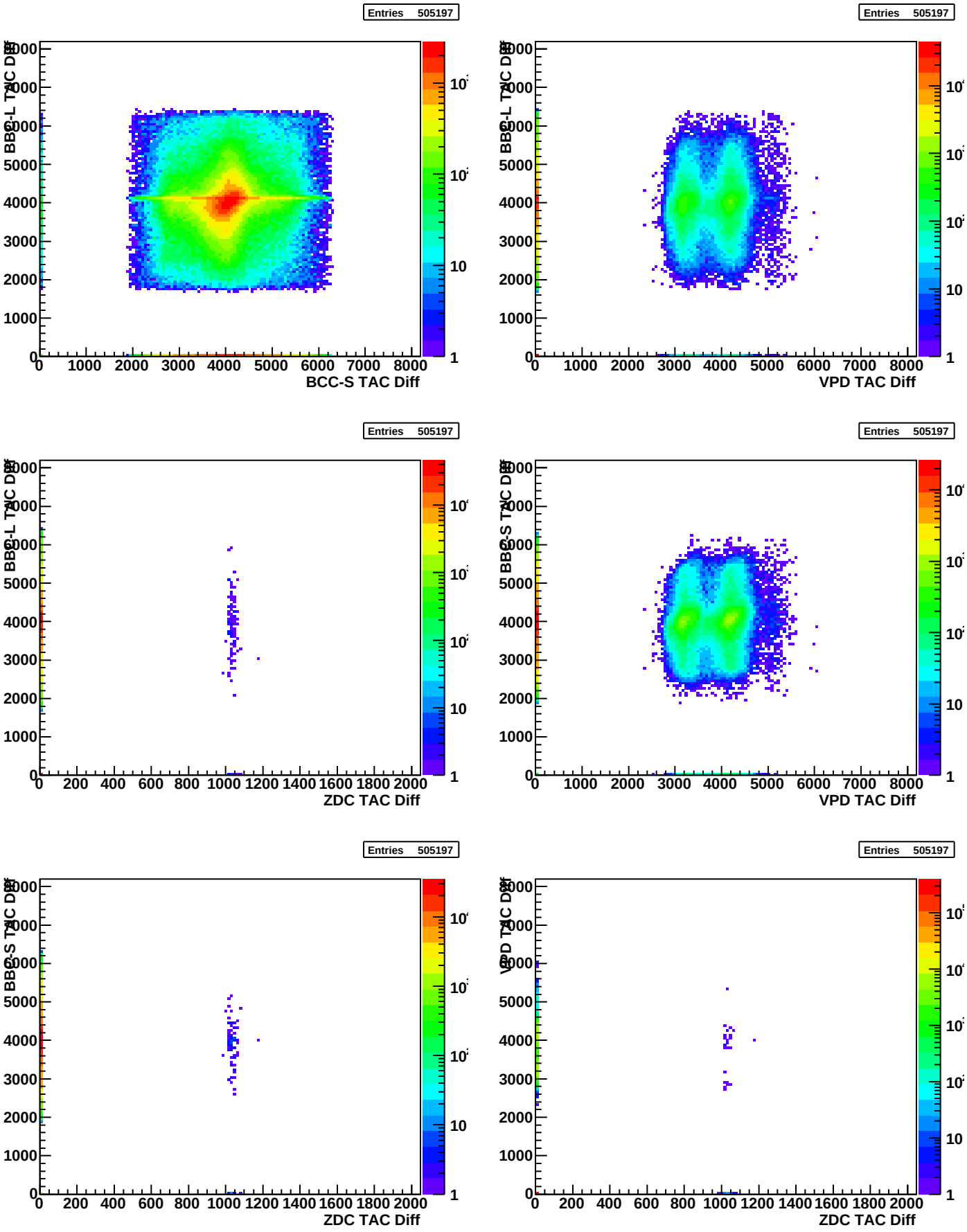

Entries 505197
VPD-West ADC Sum
ZDC-West ADC Sum Att

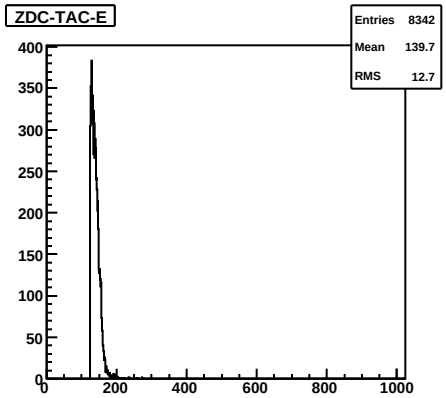

Entries 505197
BBC-L-East ADC Sum
BBC-L-West ADC Sum

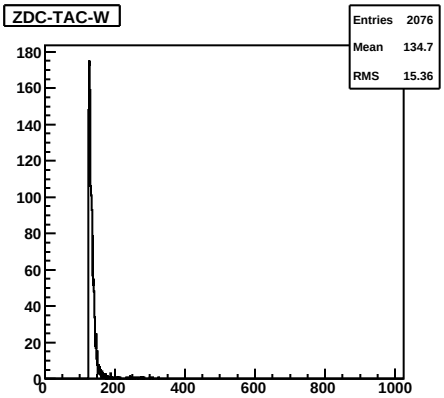

Entries 505197
BBC-S-East ADC Sum
BBC-S-West ADC Sum

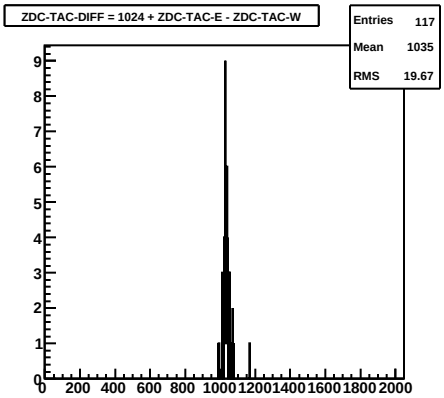

Entries 505197
VPD East ADC Sum
VPD West ADC Sum

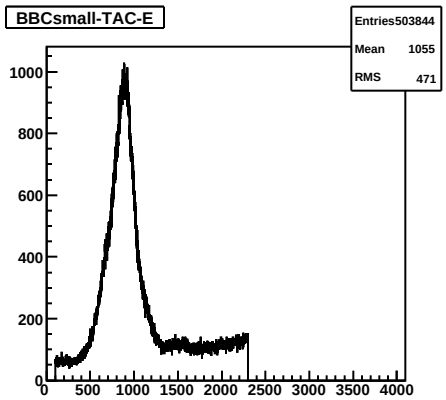

Entries 505197
ZDC East ADC Sum Att
ZDC West ADC Sum Att

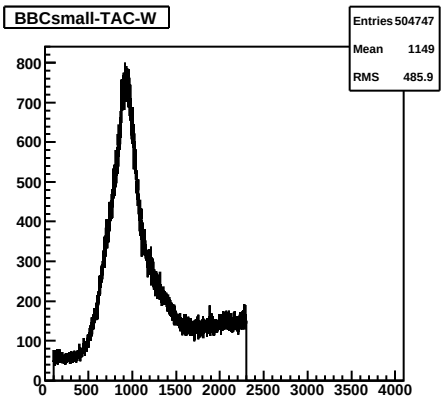

Entries 505197
BBC-L TAC Diff
BCC-S TAC Diff
Entries 505197
BBC-L TAC Diff
VPD TAC Diff
Entries 505197
BBC-L TAC Diff
ZDC TAC Diff
Entries 505197
BBC-S TAC Diff
VPD TAC Diff
Entries 505197
BBC-S TAC Diff
ZDC TAC Diff
Entries 505197
VPD TAC Diff
ZDC TAC Diff

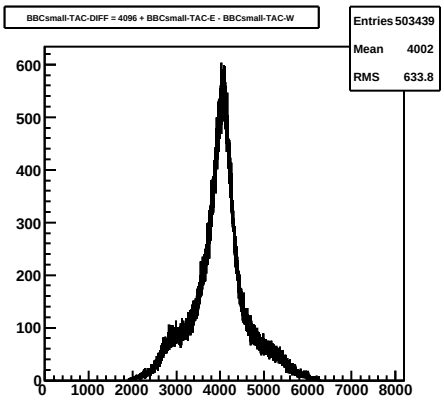

ZDC-TAC-E
Entries 8342
Mean 139.7
RMS 12.7

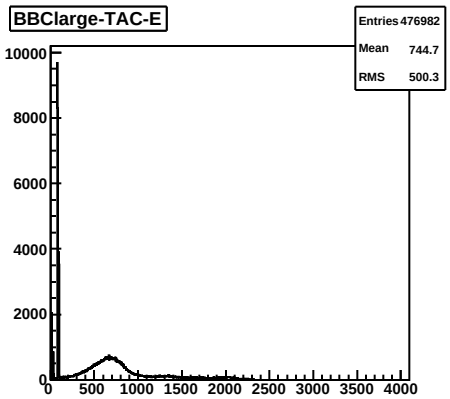

ZDC-TAC-W
Entries 2076
Mean 134.7
RMS 15.36

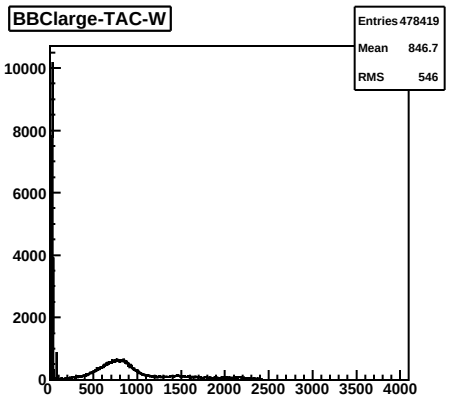

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 117
Mean 1035
RMS 19.67

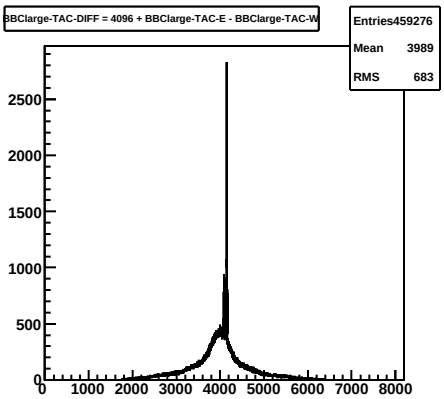

BBCsmall-TAC-E
Entries 503844
Mean 1055
RMS 471

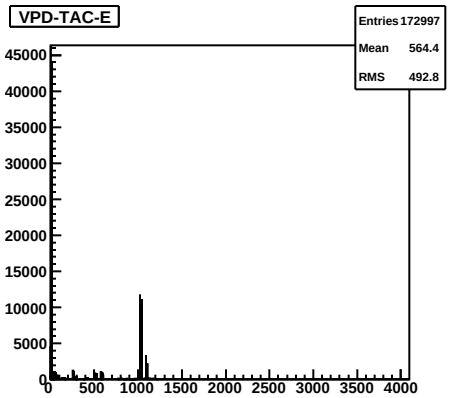

BBCsmall-TAC-W
Entries 504747
Mean 1149
RMS 485.9

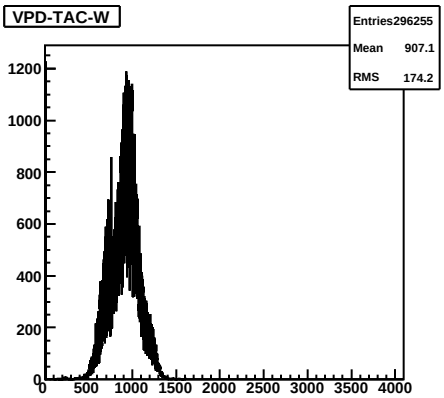

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 503439
Mean 4002
RMS 633.8

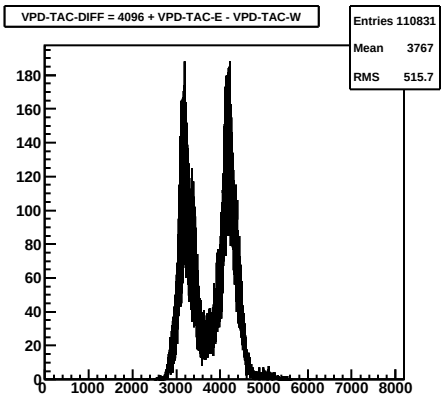

BBClarge-TAC-E
Entries 476982
Mean 744.7
RMS 500.3

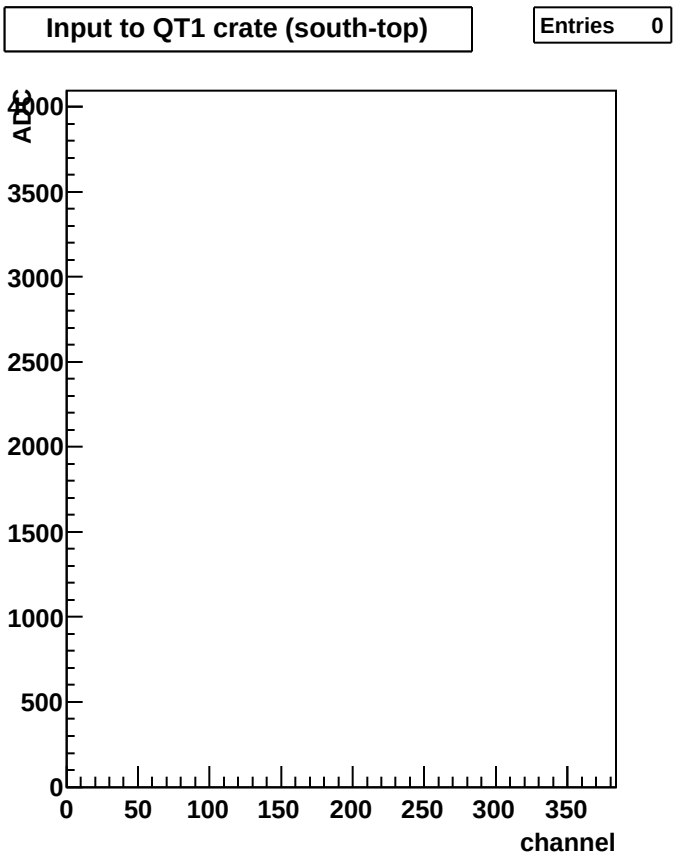

BBClarge-TAC-W
Entries 478419
Mean 846.7
RMS 546

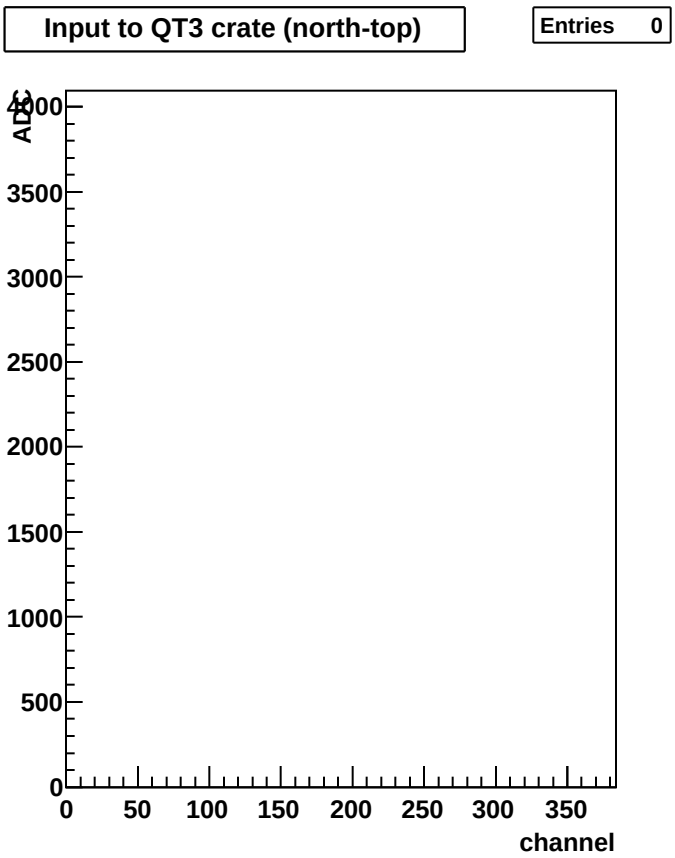

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 459276
Mean 3989
RMS 683

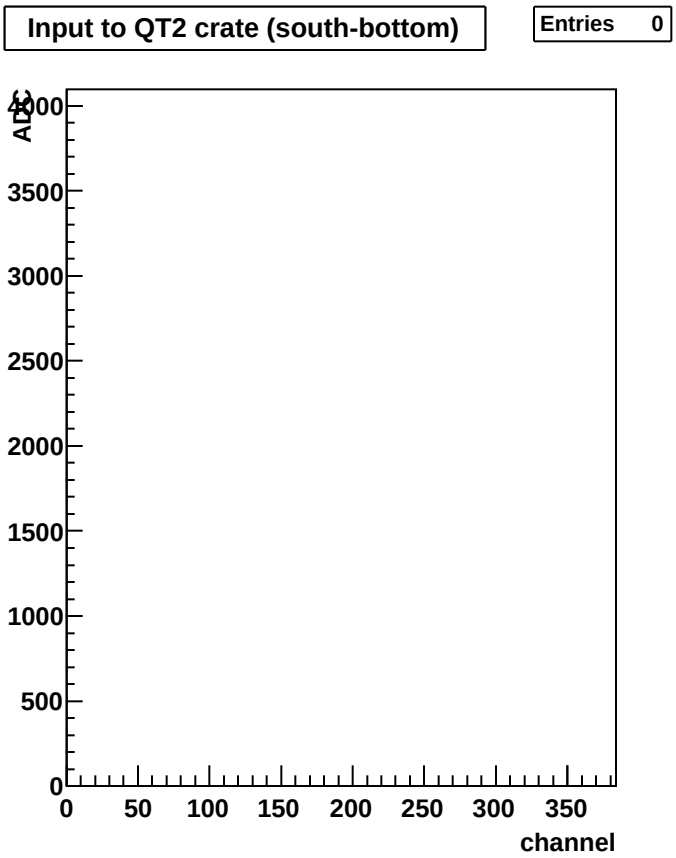

VPD-TAC-E
Entries 172997
Mean 564.4
RMS 492.8

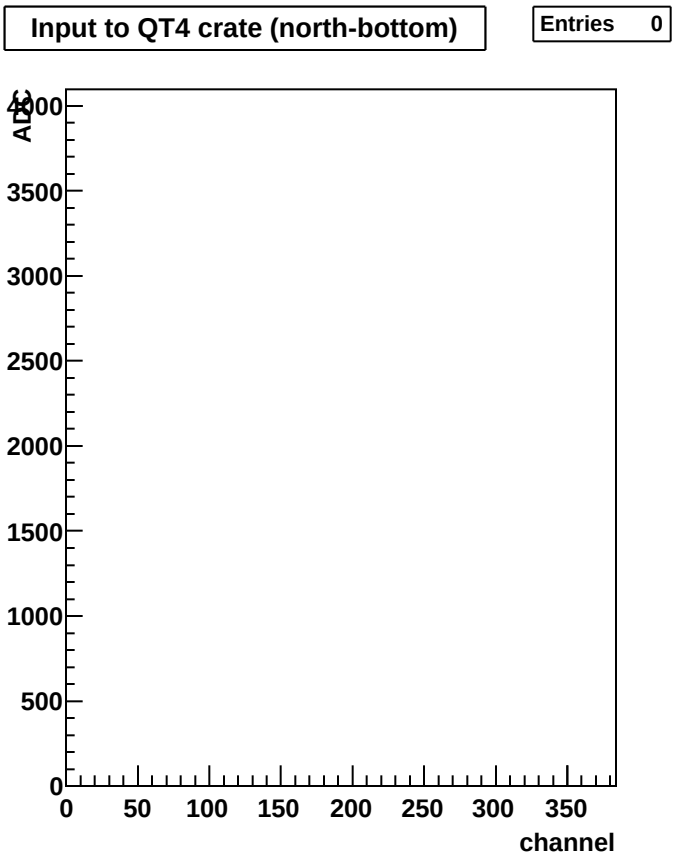

VPD-TAC-W
Entries 296255
Mean 907.1
RMS 174.2

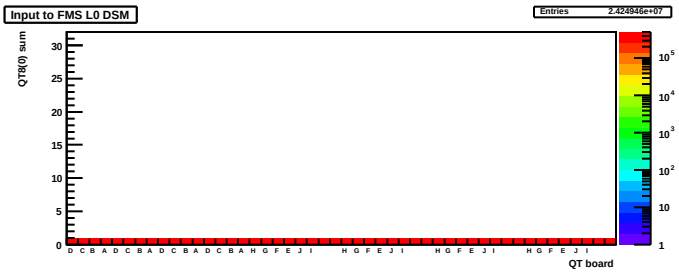

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 110831
Mean 3767
RMS 515.7

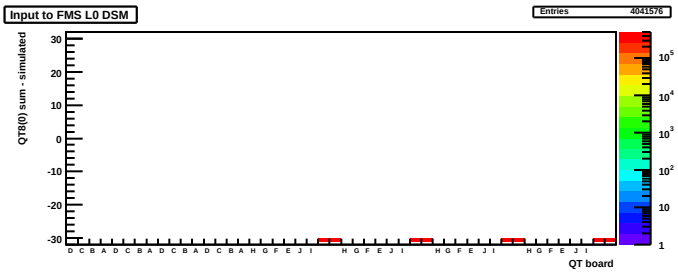

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

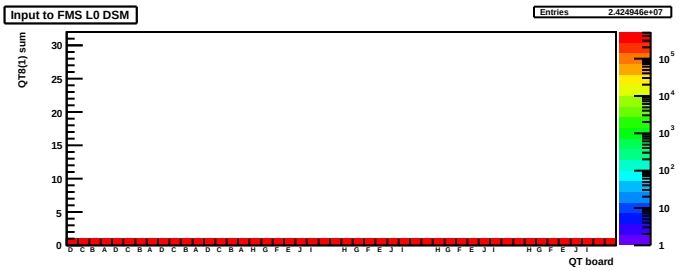

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

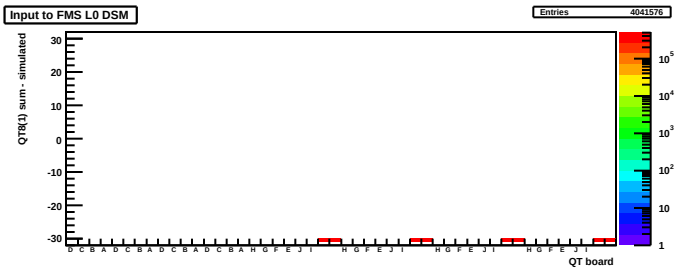

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

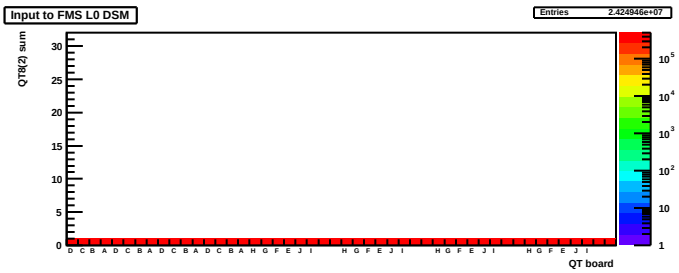

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

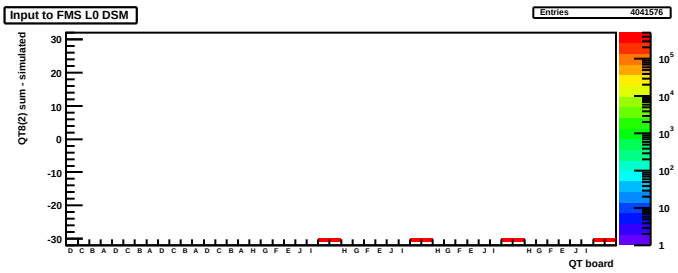

Input to FMS L0 DSM
Entries 2.424946e+07
QT8(0) sum
QT board

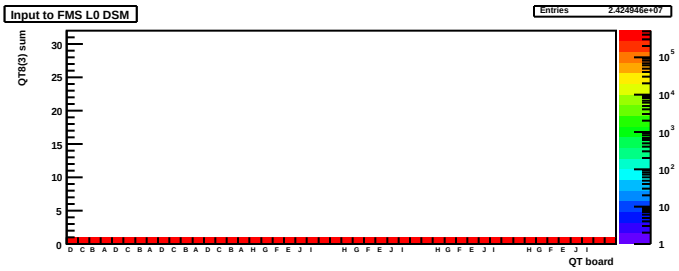

Input to FMS L0 DSM
Entries 4041576
QT8(0) sum - simulated
QT board

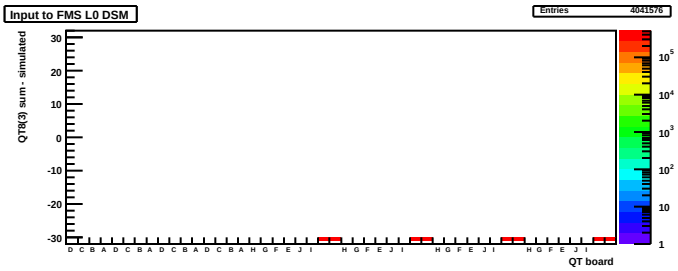

Input to FMS L0 DSM
Entries 2.424946e+07
QT8(1) sum
QT board

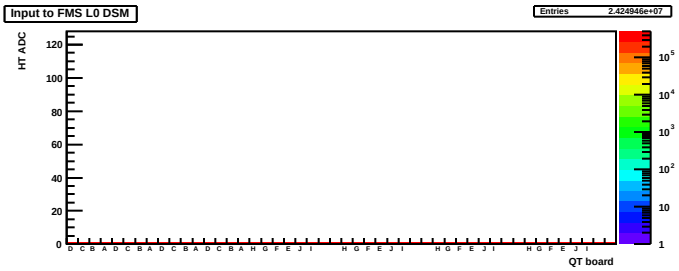

Input to FMS L0 DSM
Entries 4041576
QT8(1) sum - simulated
QT board

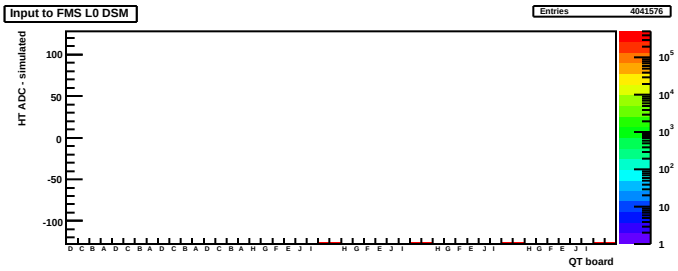

Input to FMS L0 DSM
Entries 2.424946e+07
QT8(2) sum
QT board

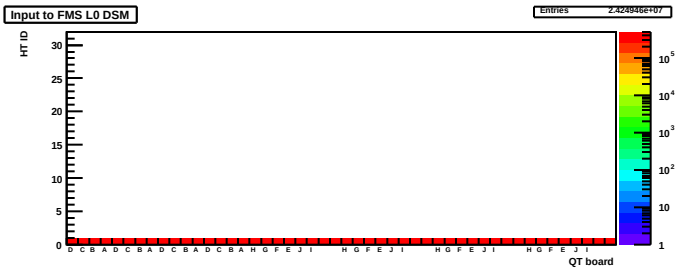

Input to FMS L0 DSM
Entries 4041576
QT8(2) sum - simulated
QT board

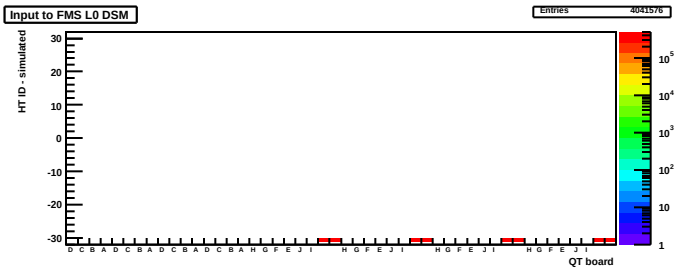

Input to FMS L0 DSM
Entries 2.424946e+07
QT8(3) sum
QT board

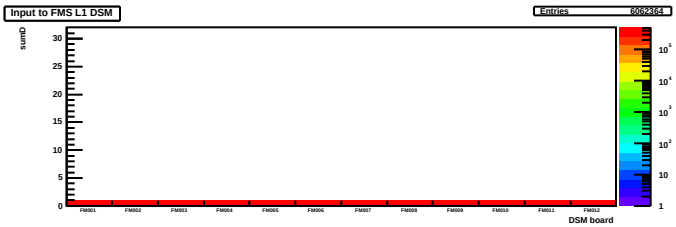

Input to FMS L0 DSM
Entries 4041576
QT8(3) sum - simulated
QT board

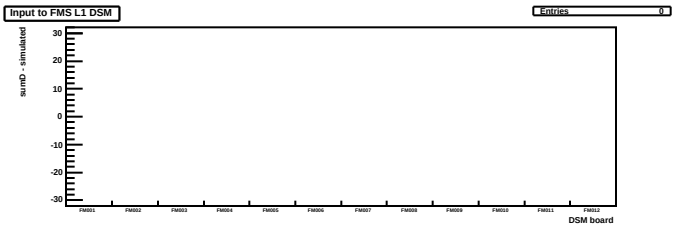

Input to FMS L0 DSM
Entries 2.424946e+07
HT ADC
QT board

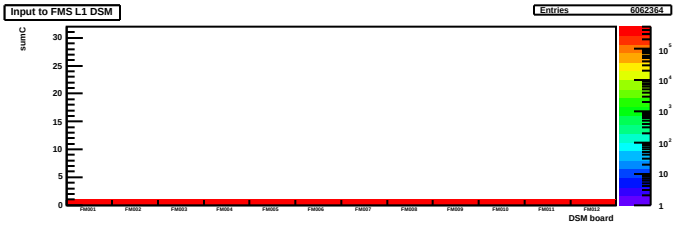

Input to FMS L0 DSM
Entries 4041576
HT ADC - simulated
QT board

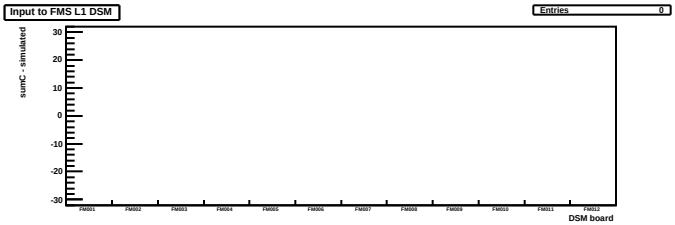

Input to FMS L0 DSM
Entries 2.424946e+07
HT ID
QT board

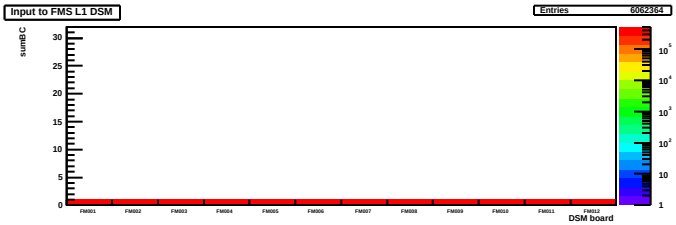

Input to FMS L0 DSM
Entries 4041576
HT ID - simulated
QT board

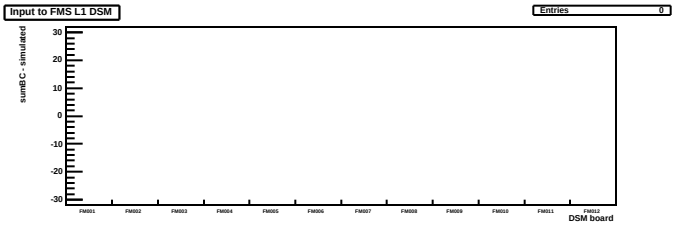

Input to FMS L1 DSM
Entries 6062364
sumD
DSM board

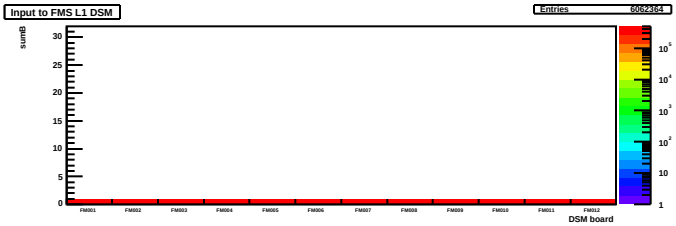

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

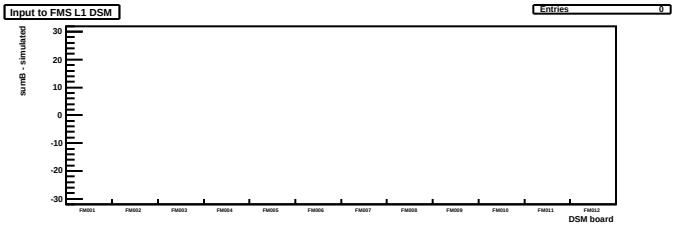

Input to FMS L1 DSM
Entries 6062364
sumC
DSM board

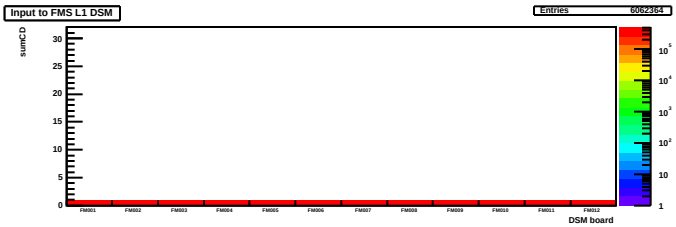

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

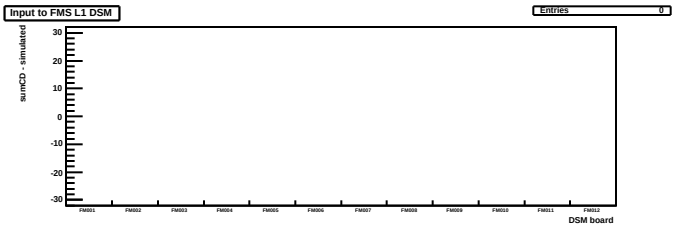

Input to FMS L1 DSM
Entries 6062364
sumBC
DSM board

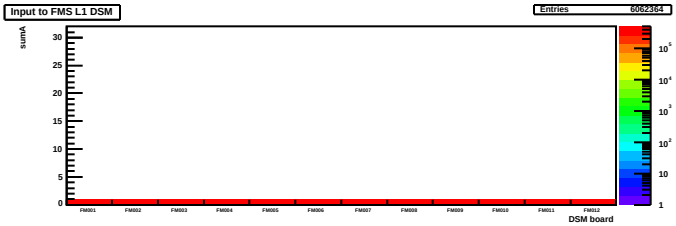

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

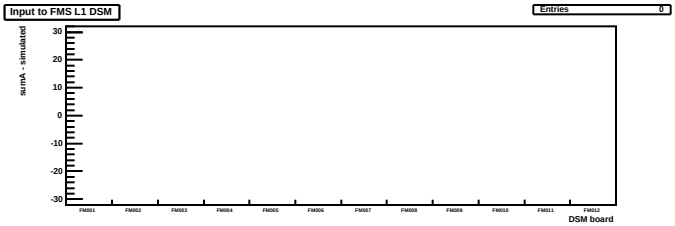

Input to FMS L1 DSM
Entries 6062364
sumB
DSM board

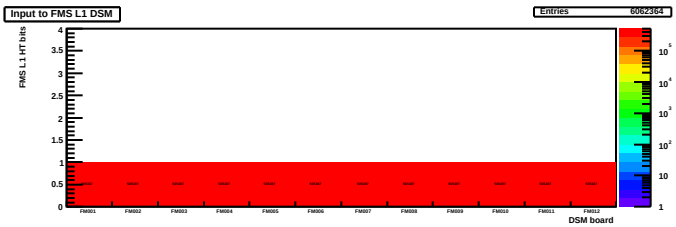

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

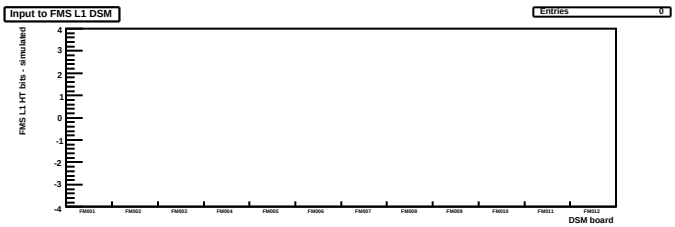

Input to FMS L1 DSM
Entries 6062364
sumCD
DSM board

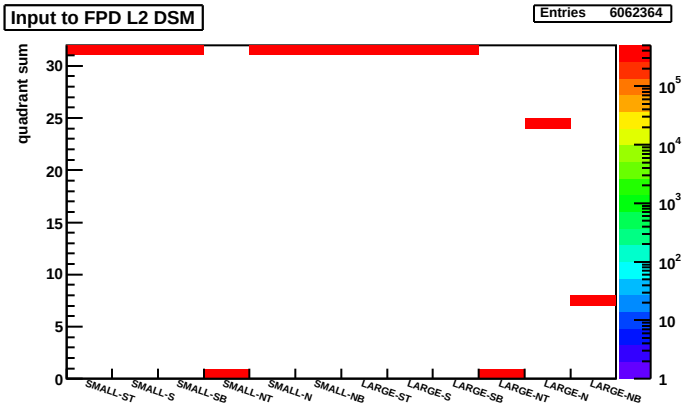

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

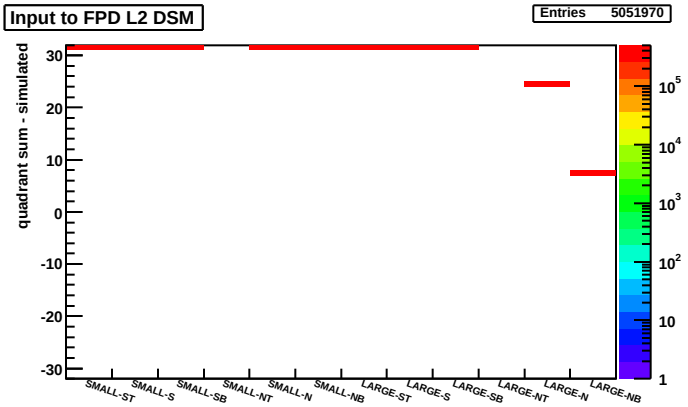

Input to FMS L1 DSM
Entries 6062364
sumA
DSM board

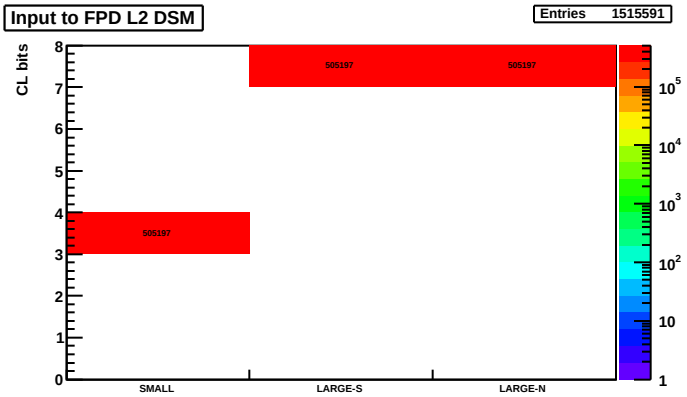

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

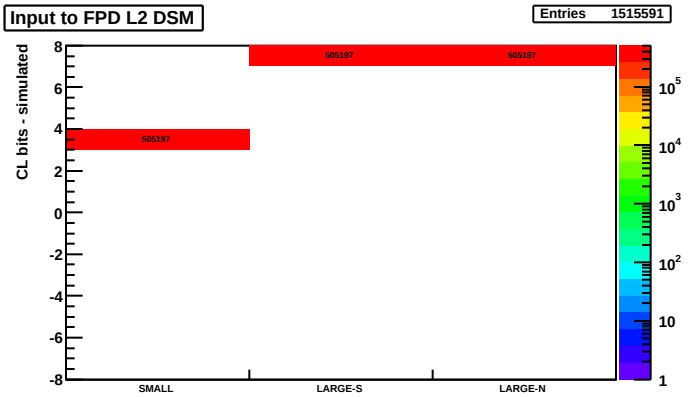

Input to FMS L1 DSM
Entries 6062364
FMS L1 HT bits
DSM board

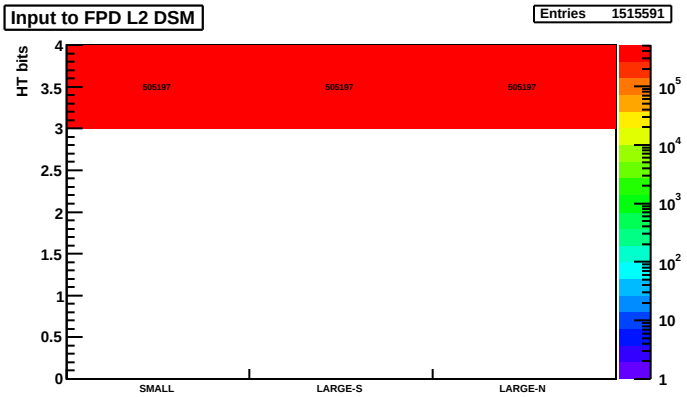

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

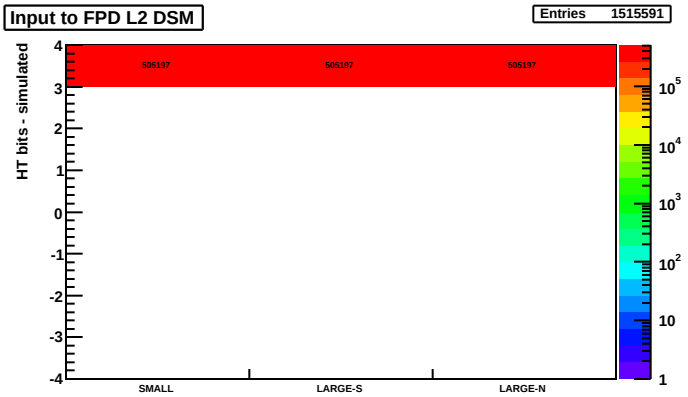

Input to FPD L2 DSM
Entries 6062364
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

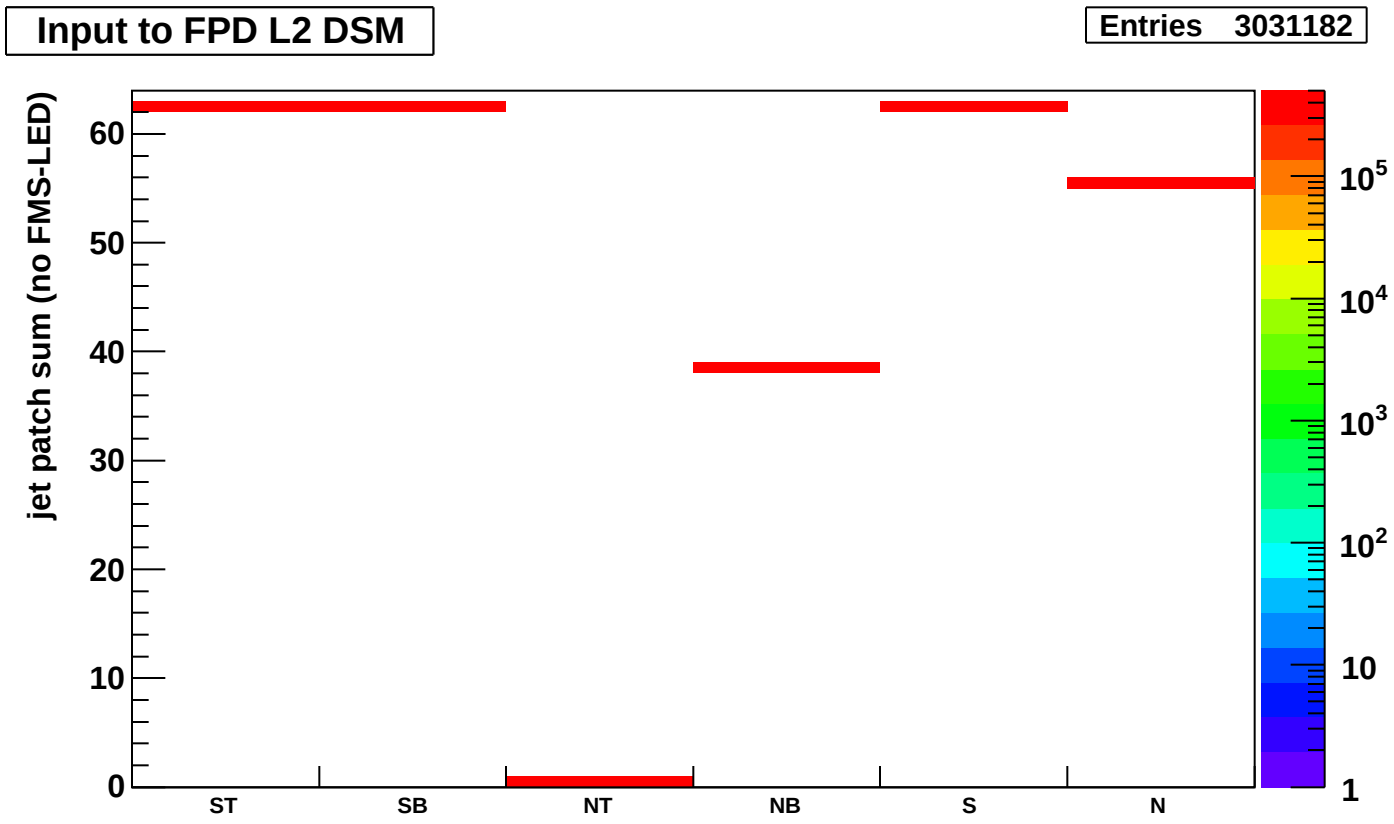

Input to FPD L2 DSM
Entries 5051970
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

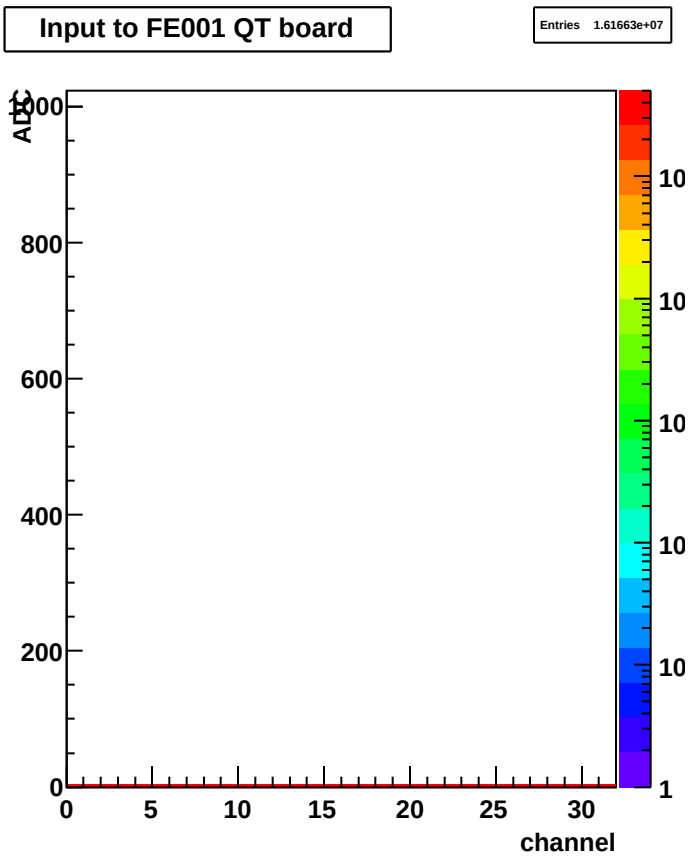

Input to FPD L2 DSM
Entries 1515591
CL bits
505197
505197
505197
SMALL
LARGE-S
LARGE-N

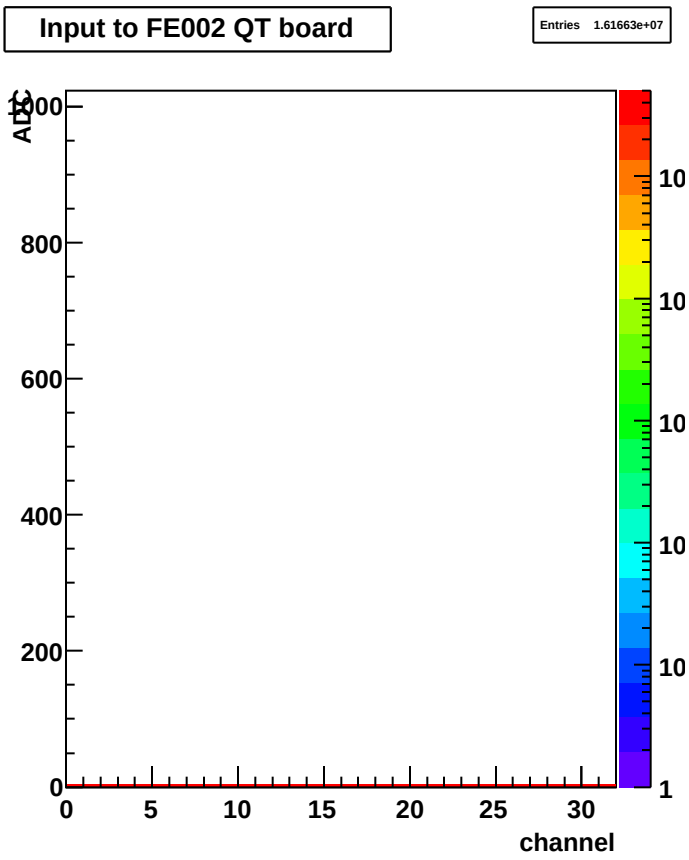

Input to FPD L2 DSM
Entries 1515591
CL bits - simulated
505197
505197
505197
SMALL
LARGE-S
LARGE-N

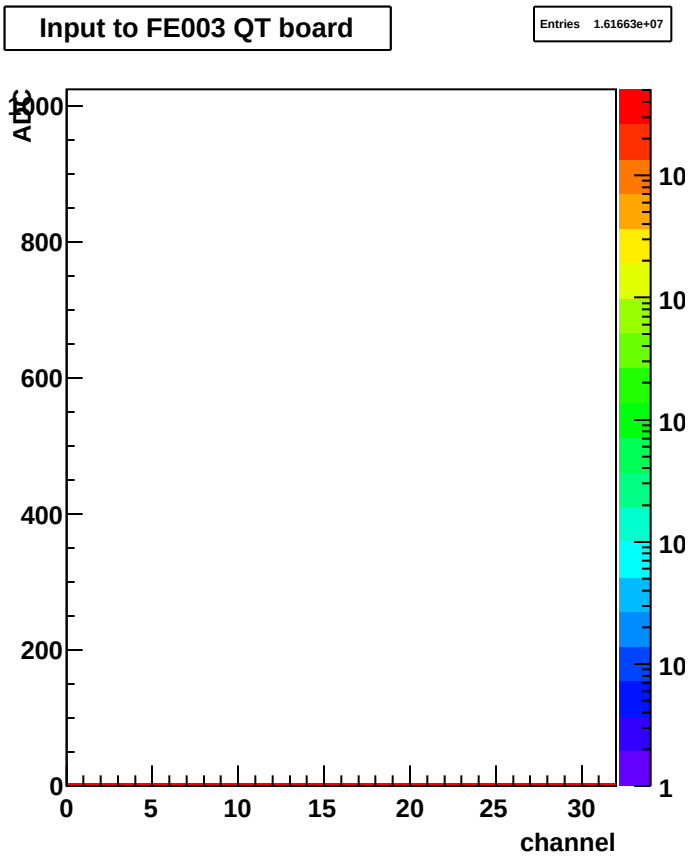

Input to FPD L2 DSM
Entries 1515591
HT bits
505197
505197
505197
SMALL
LARGE-S
LARGE-N

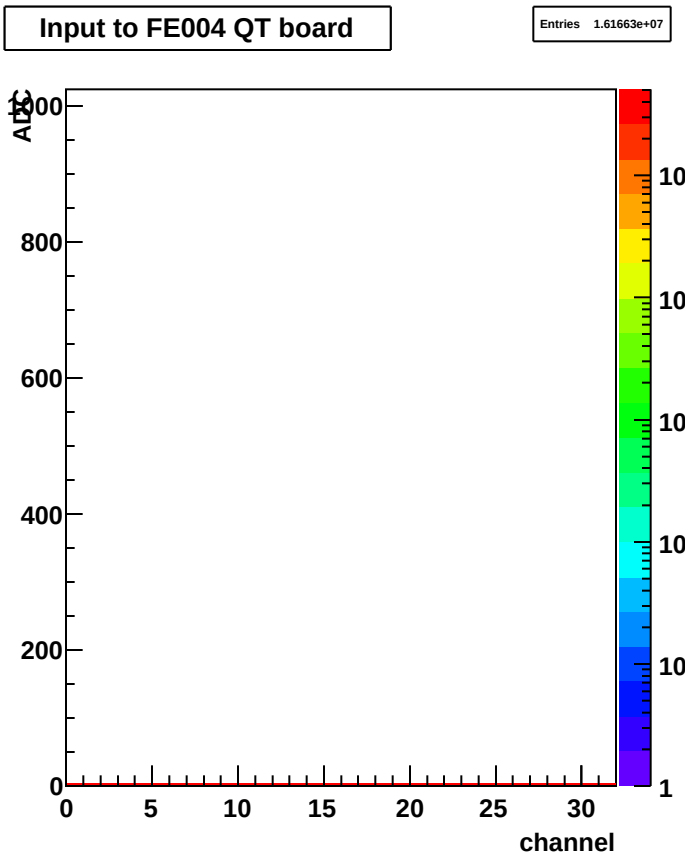

Input to FPD L2 DSM
Entries 1515591
HT bits - simulated
505197
505197
505197
SMALL
LARGE-S
LARGE-N

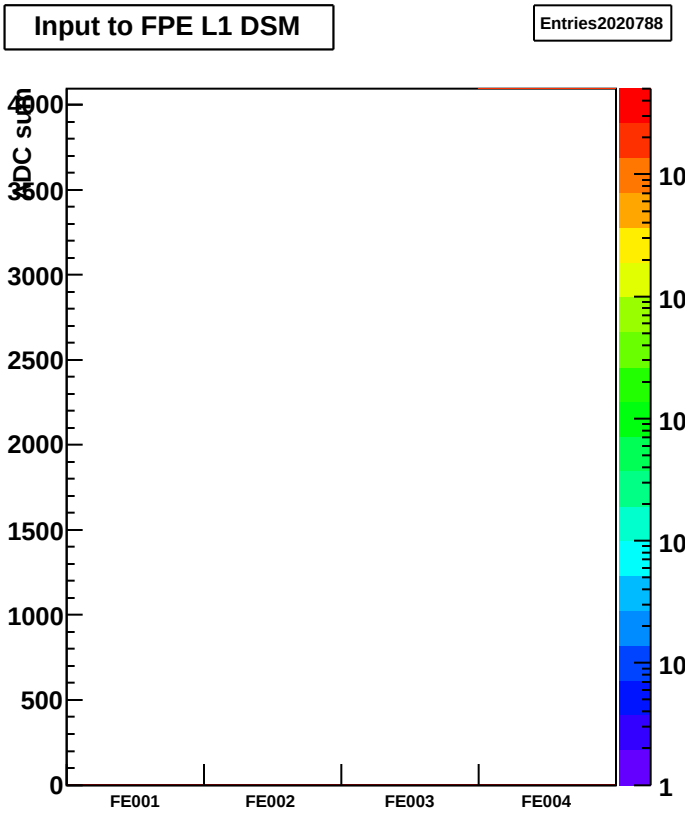

Input to FPD L2 DSM
Entries 3031182
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

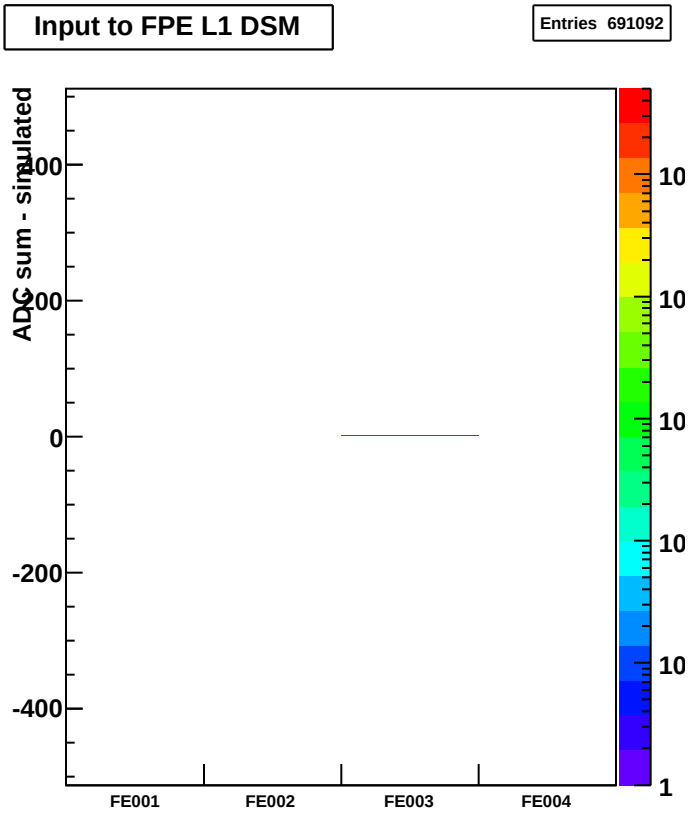

Input to FE001 QT board
Entries 1.61663e+07
ADC
channel


Input to FE002 QT board
Entries 1.61663e+07
ADC
channel

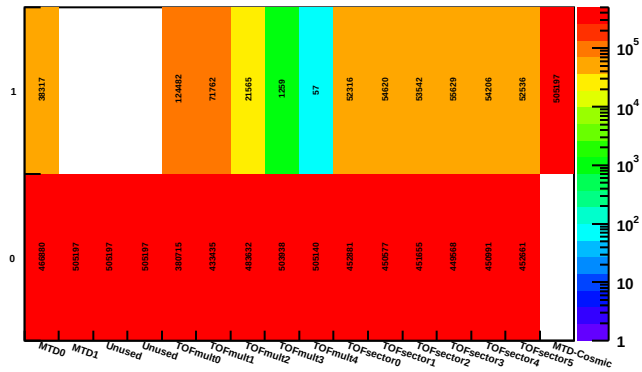

Input to FE003 QT board
Entries 1.61663e+07
ADC
channel


Input to FE004 QT board
Entries 1.61663e+07
ADC
channel

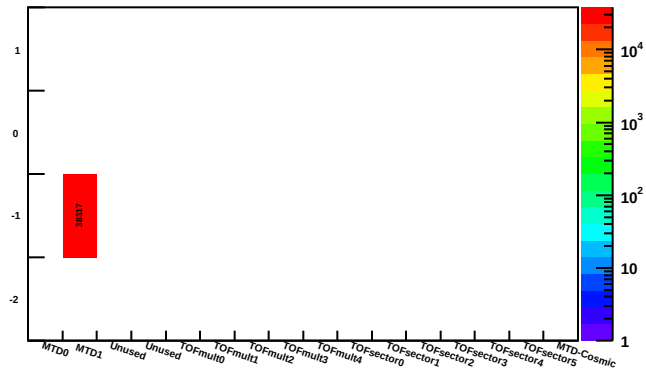

Input to FPE L1 DSM
Entries2020788
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 691092
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

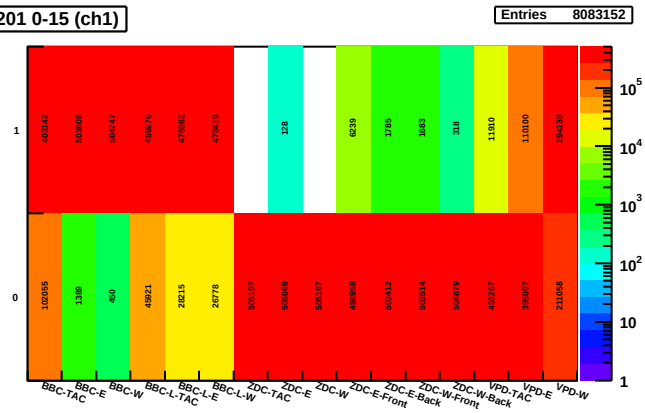
TF201 0-15 (ch0)



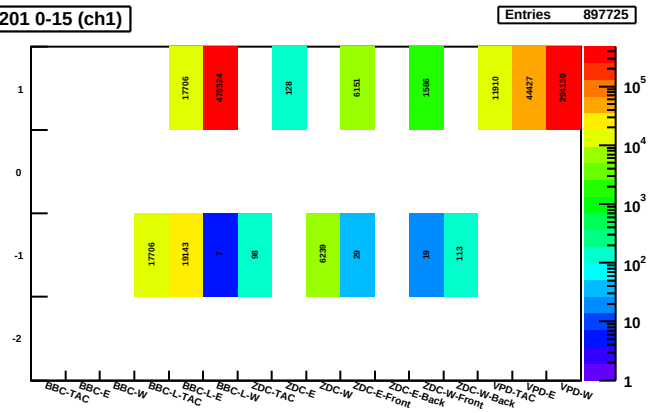
TF201 0-15 (ch0)



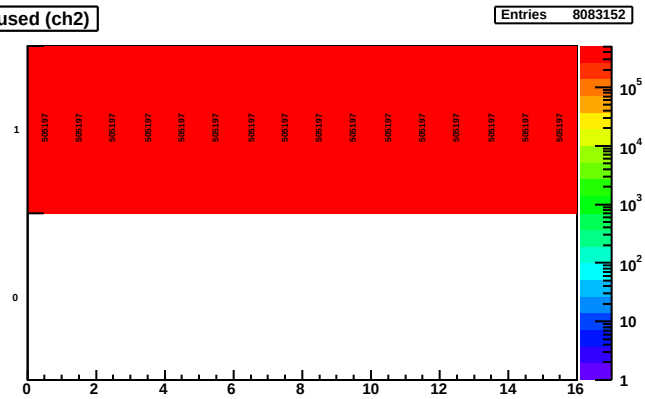
VT201 0-15 (ch1)

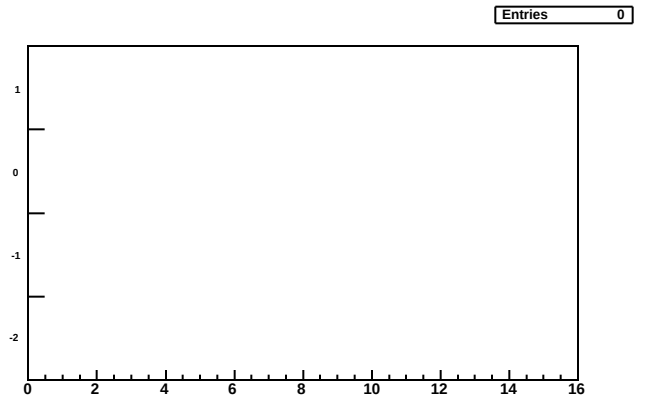


VT201 0-15 (ch1)



Unused (ch2)





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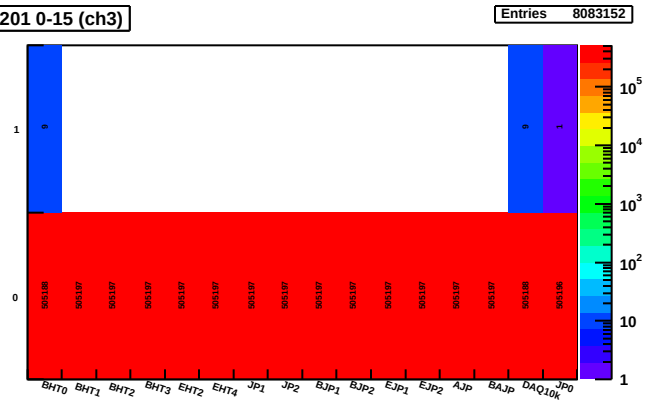

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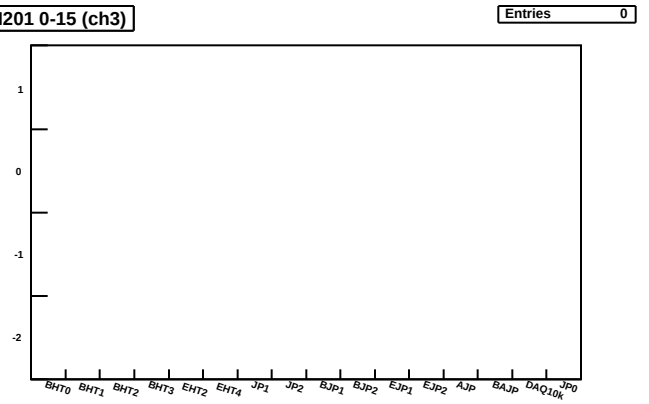
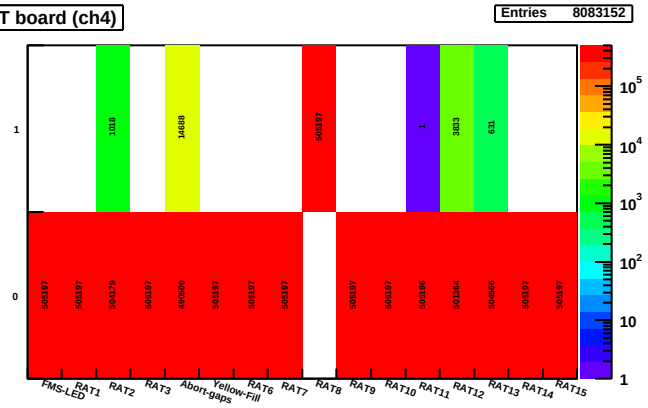
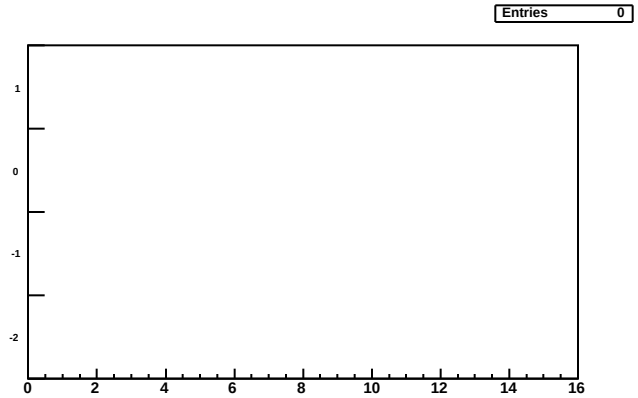


RAT board (ch4)





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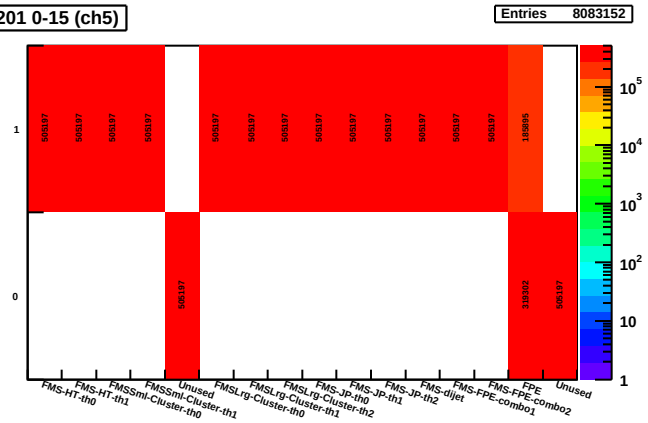

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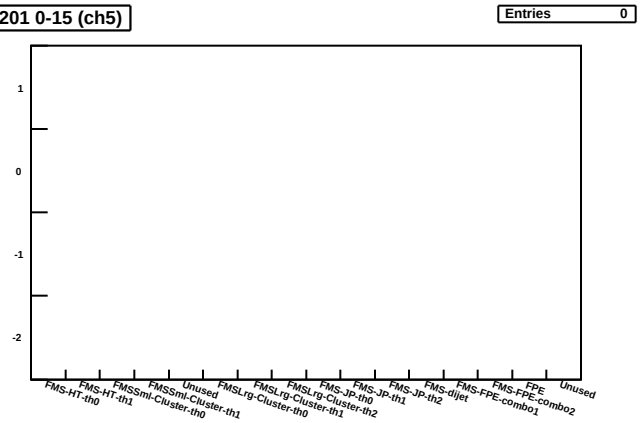

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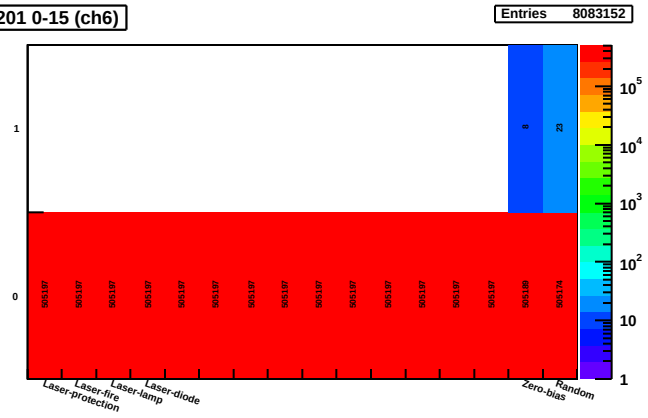

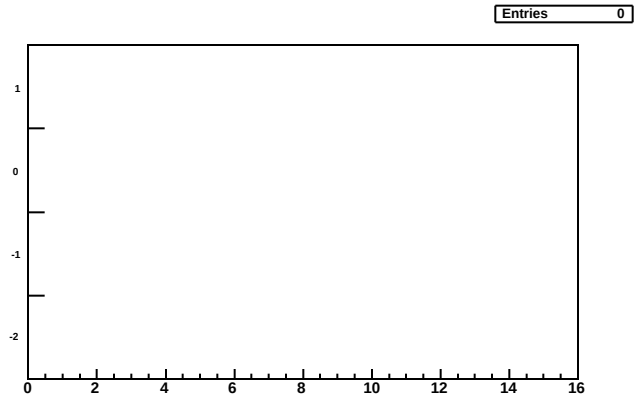
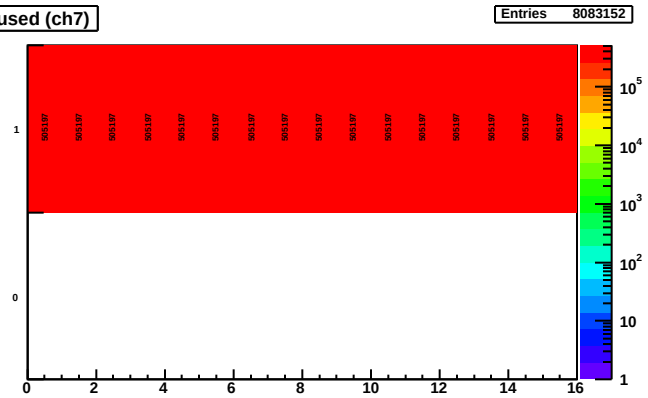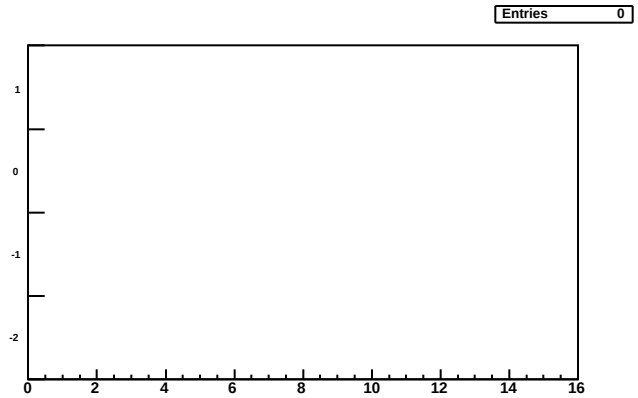
Unused (ch7)