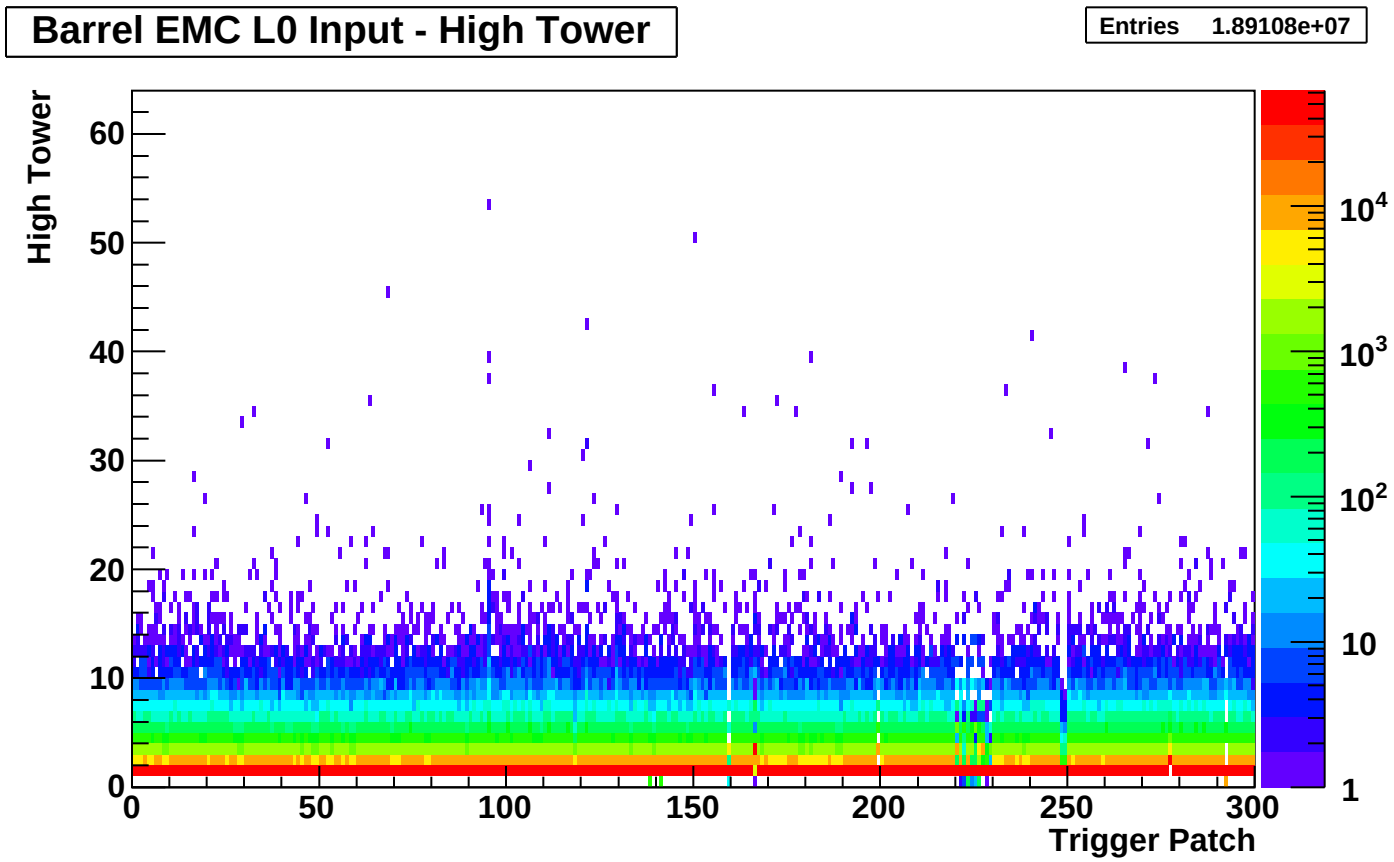
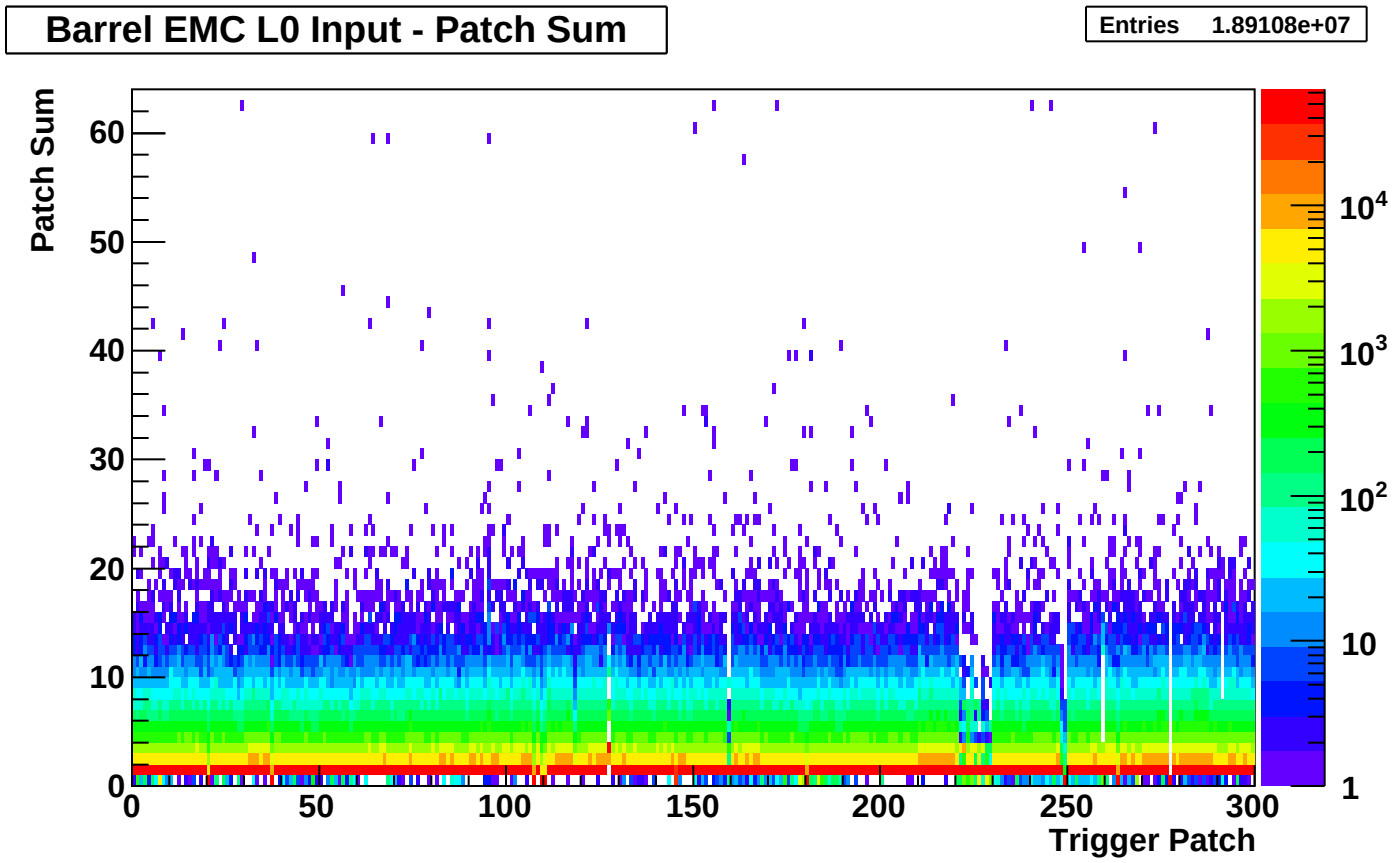
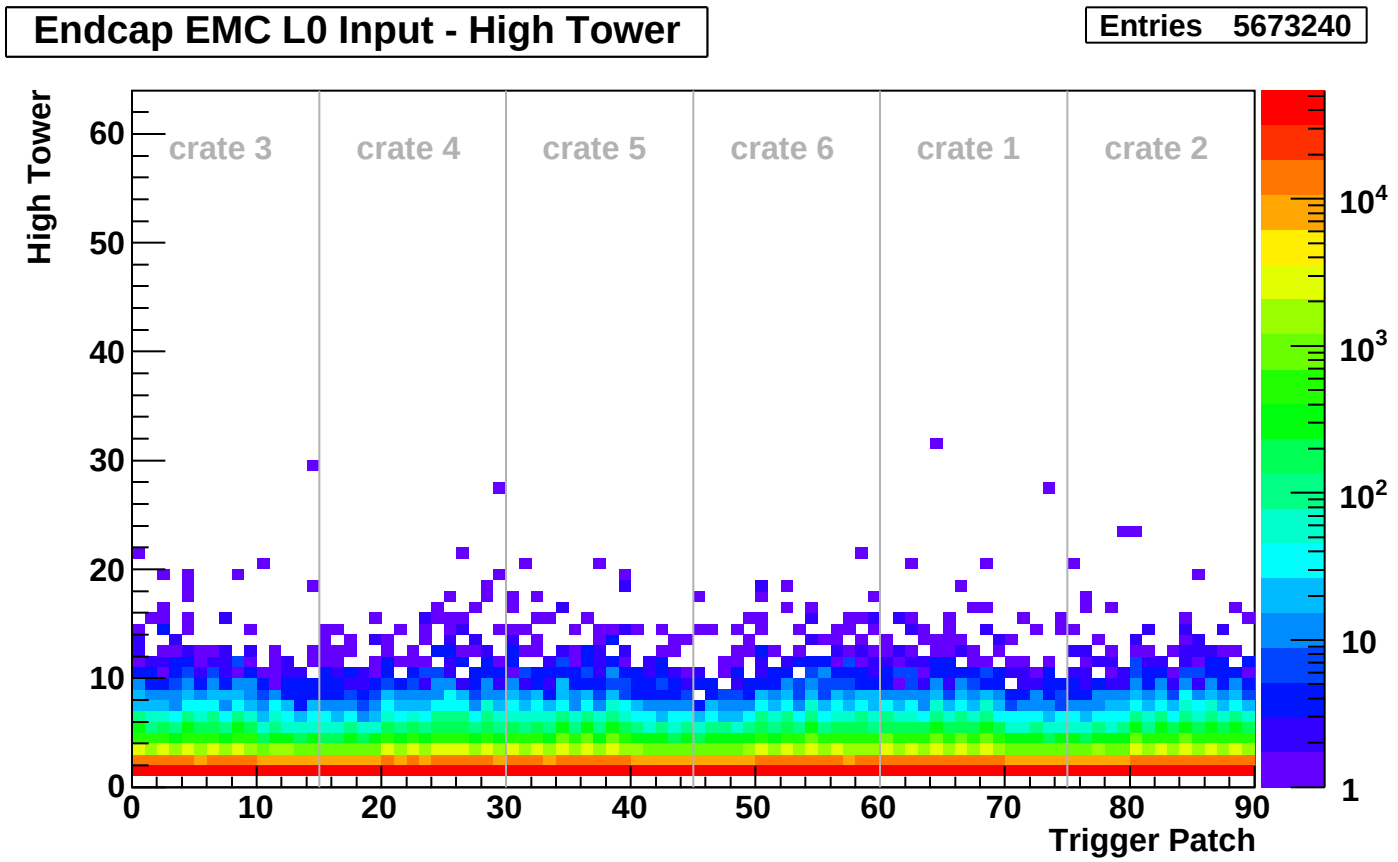
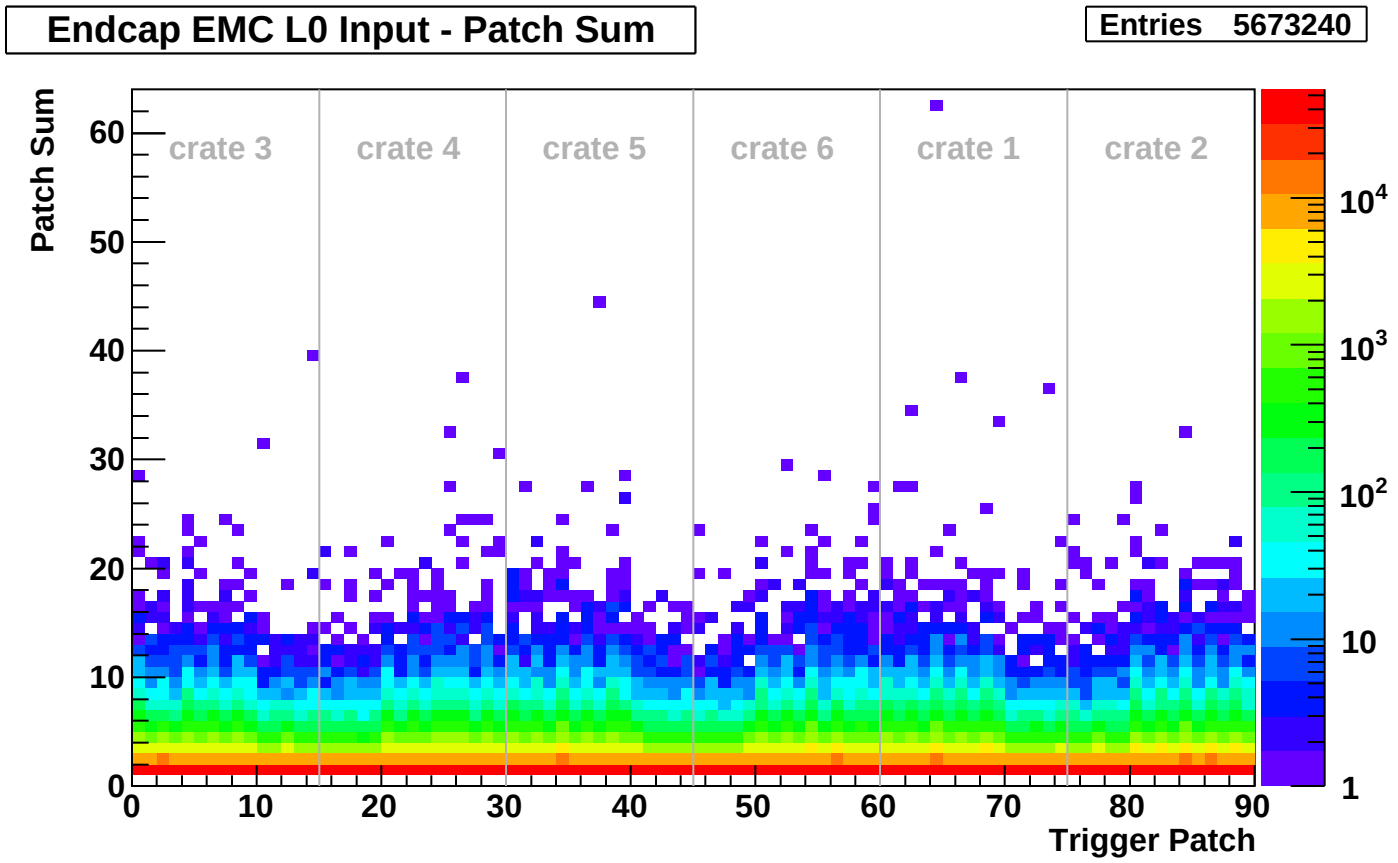
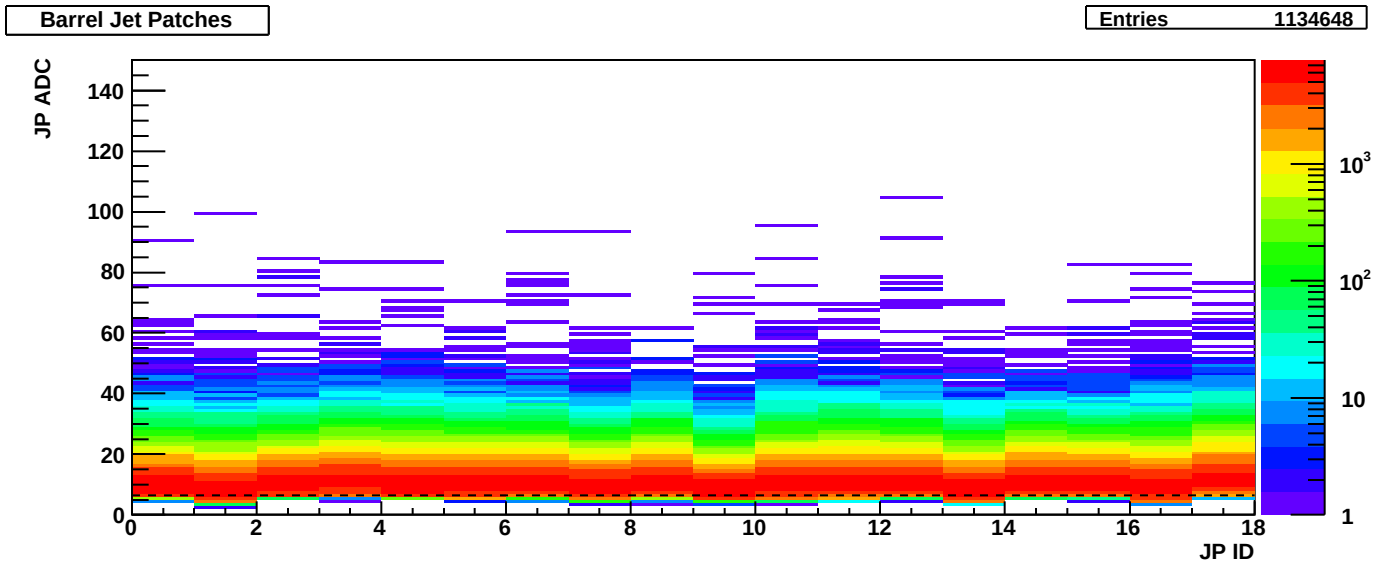
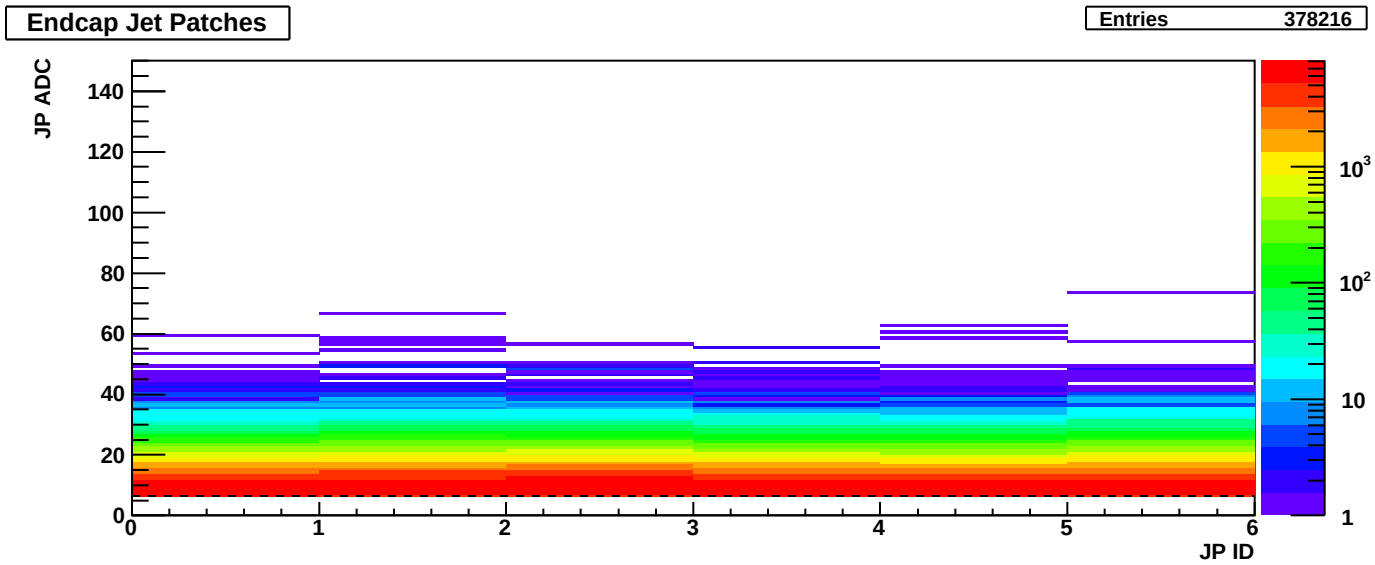

Barrel EMC L0 Input - High Tower
Entries 1.89108e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

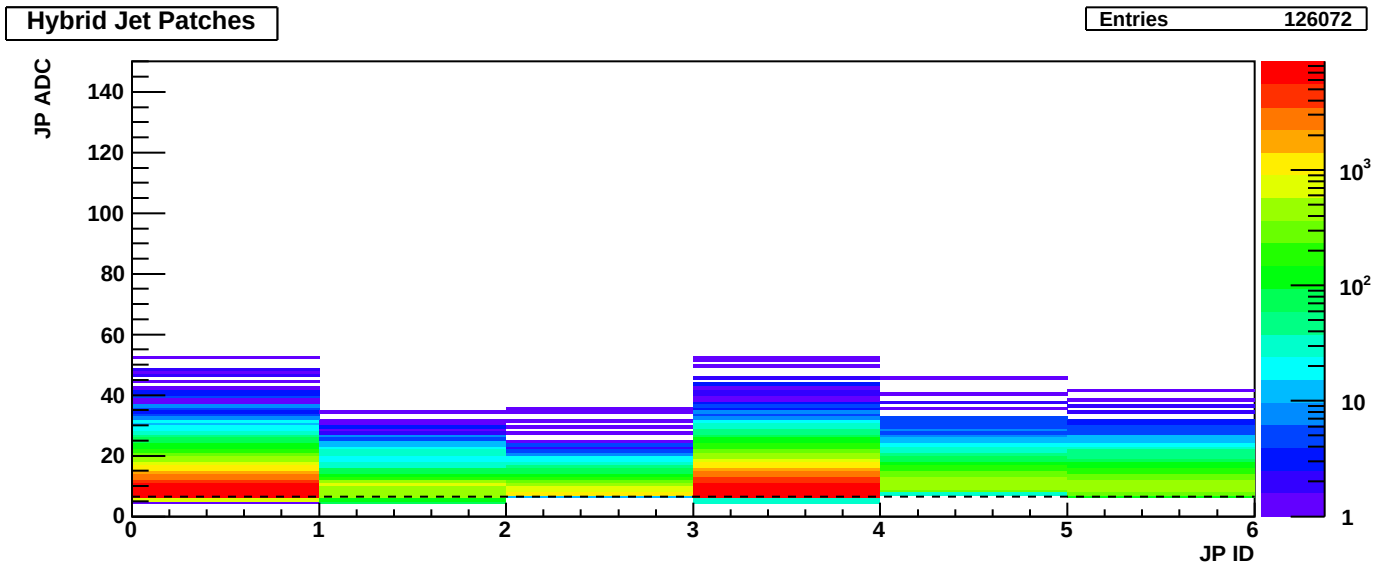

Barrel EMC L0 Input - Patch Sum
Entries 1.89108e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

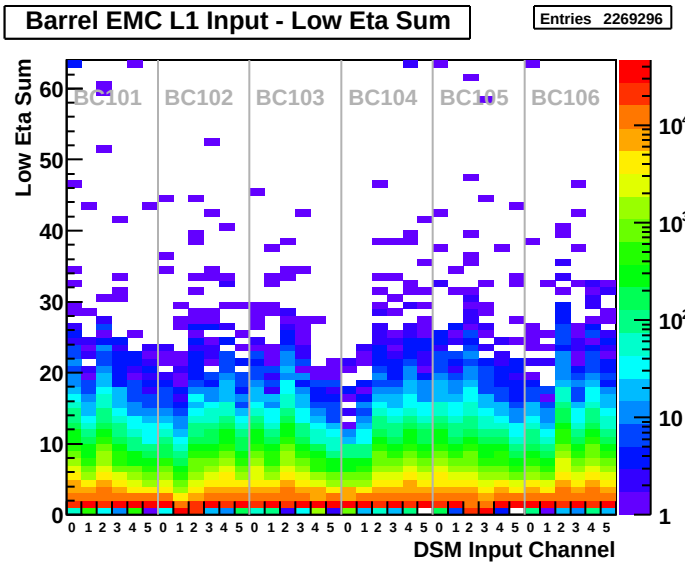

Endcap EMC L0 Input - High Tower
Entries 5673240
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

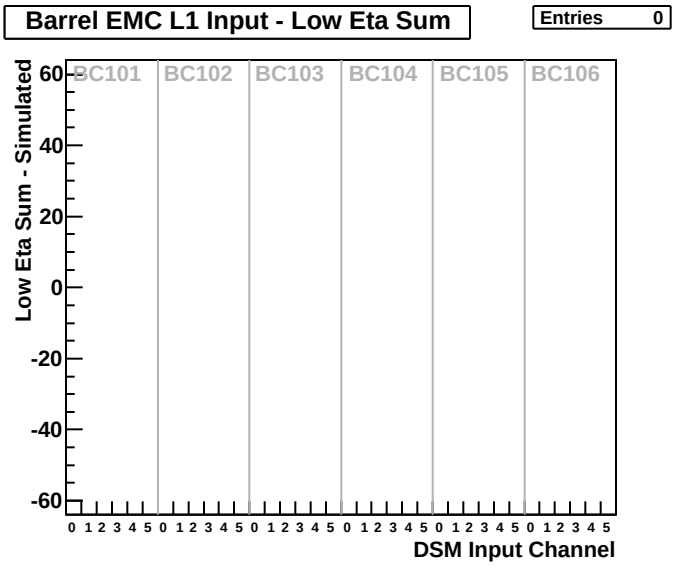

Endcap EMC L0 Input - Patch Sum
Entries 5673240
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

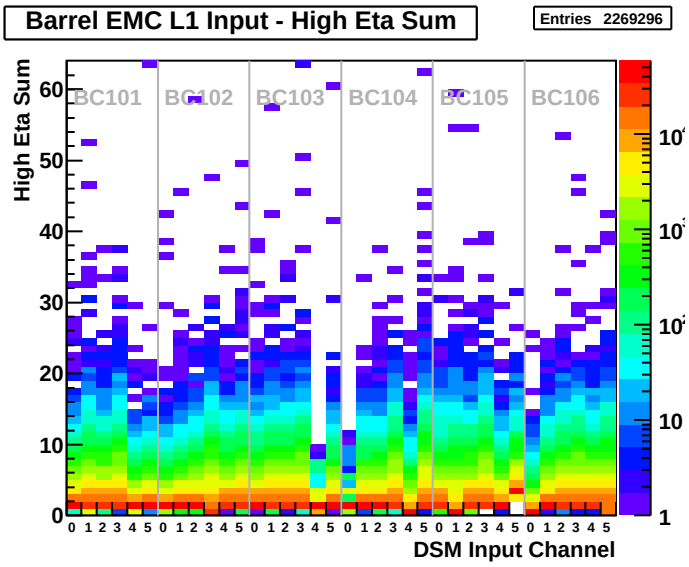

Barrel Jet Patches
Entries 1134648
JP ADC
JP ID

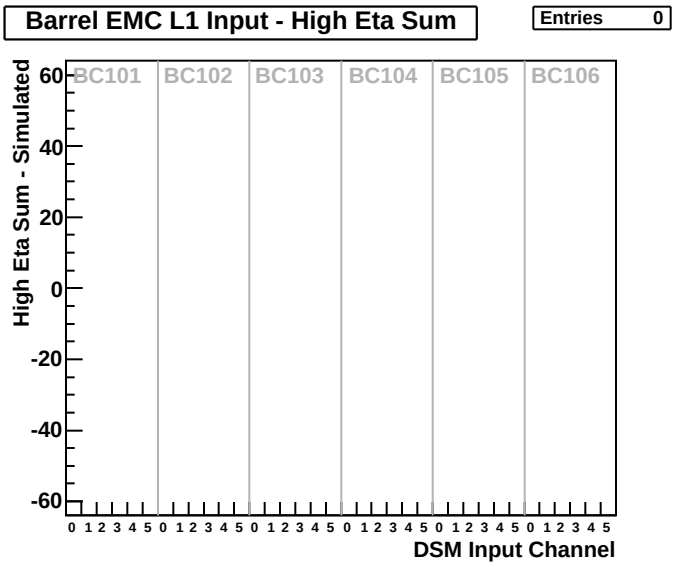

Endcap Jet Patches
Entries 378216
JP ADC
JP ID

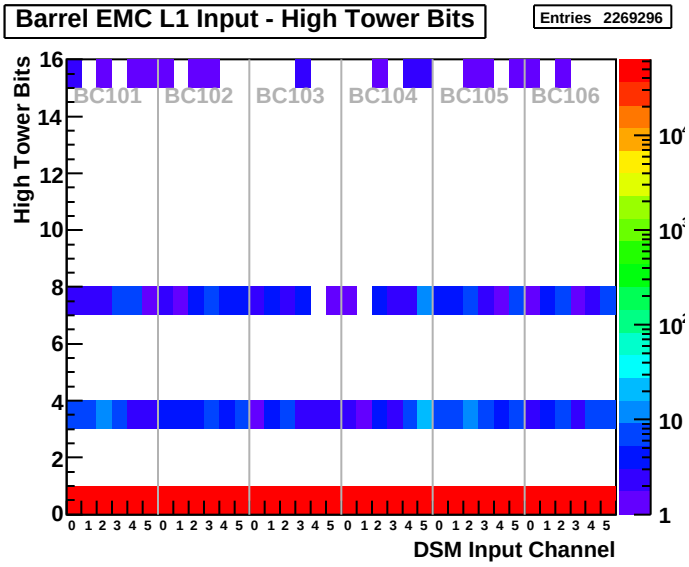

Hybrid Jet Patches
Entries 126072
JP ADC
JP ID

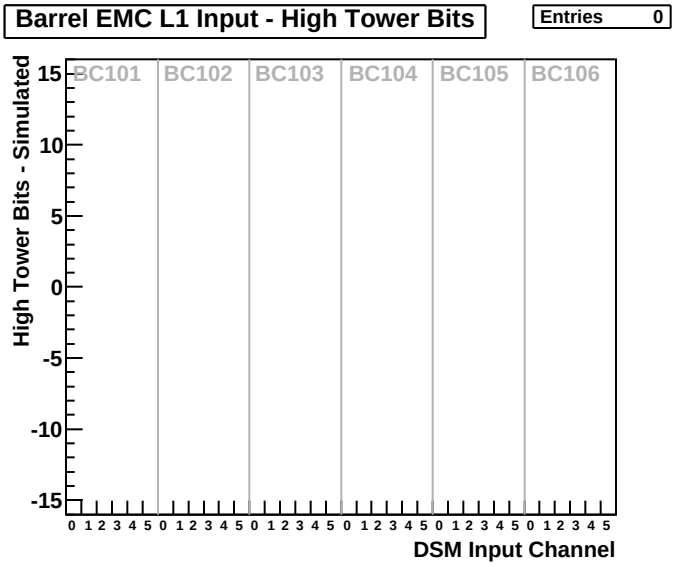

Barrel EMC L1 Input - Low Eta Sum
Entries 2269296
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

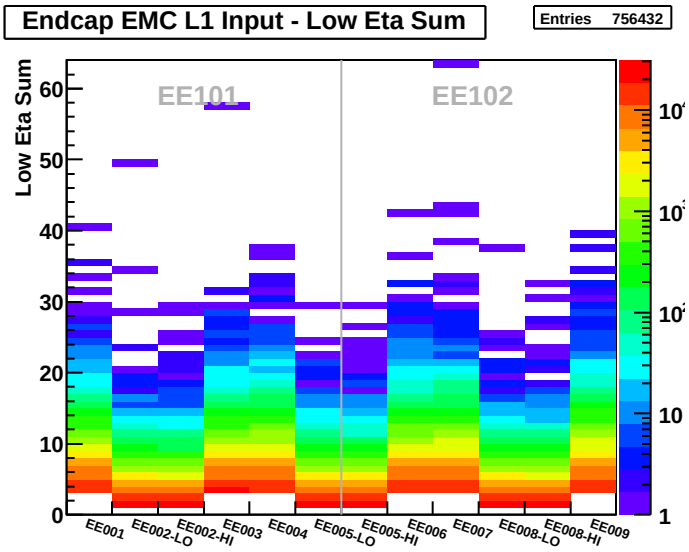

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

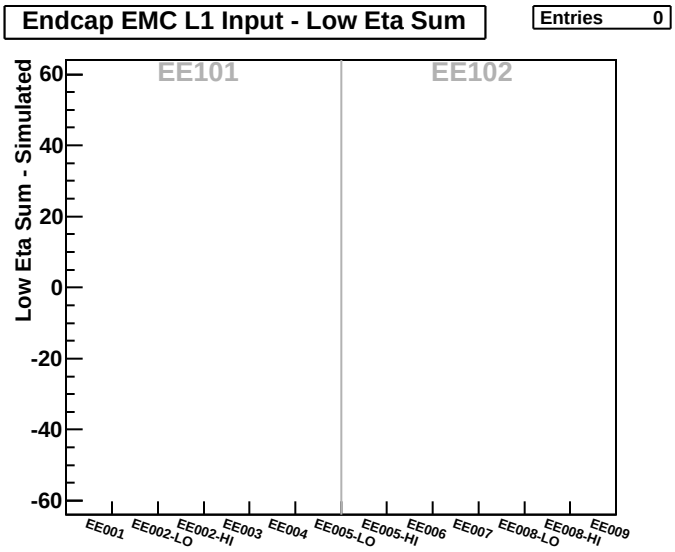

Barrel EMC L1 Input - High Eta Sum
Entries 2269296
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

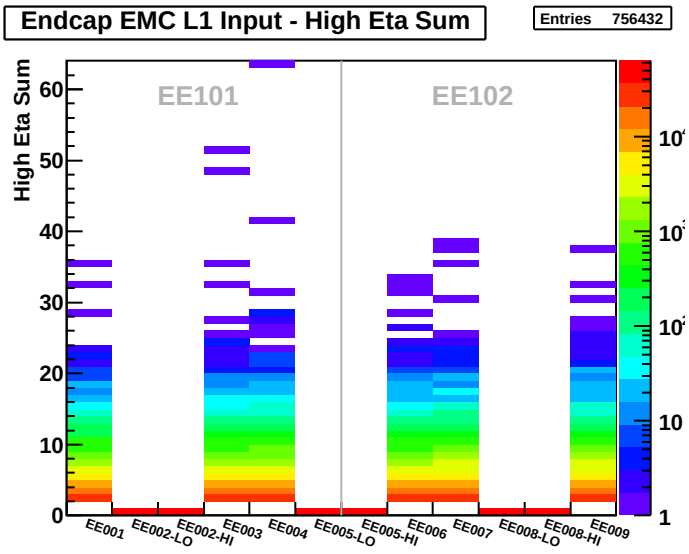

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

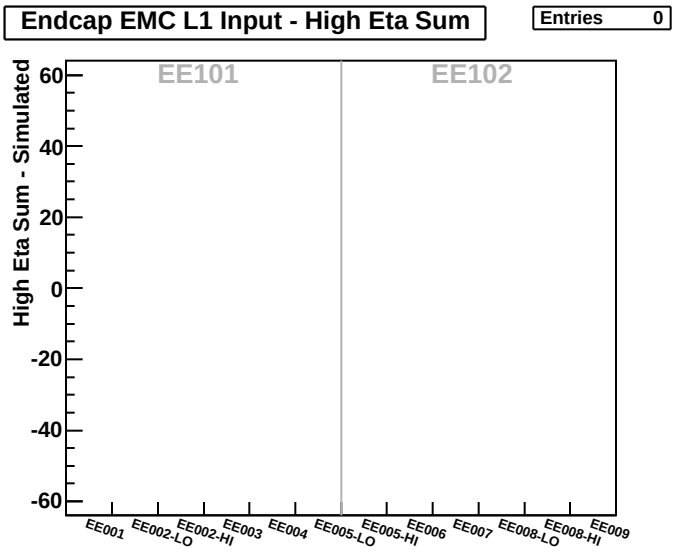

Barrel EMC L1 Input - High Tower Bits
Entries 2269296
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

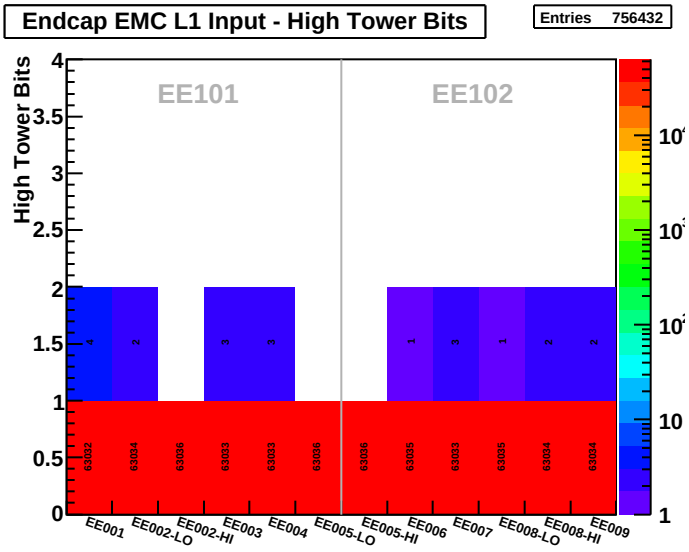

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

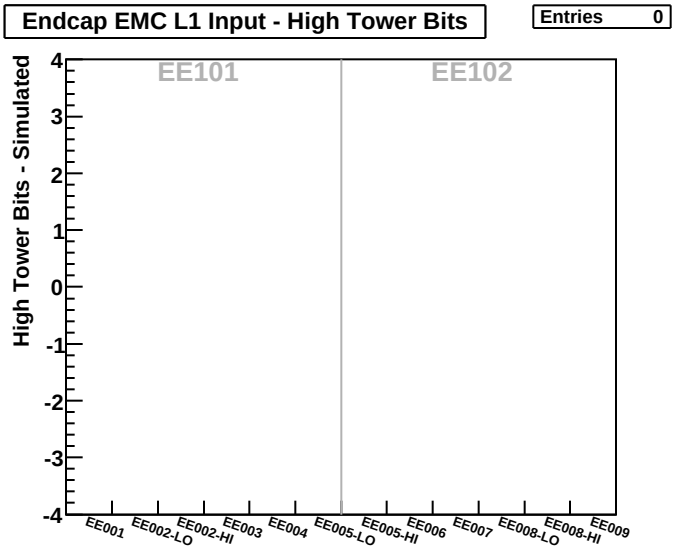

Endcap EMC L1 Input - Low Eta Sum
Entries 756432
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

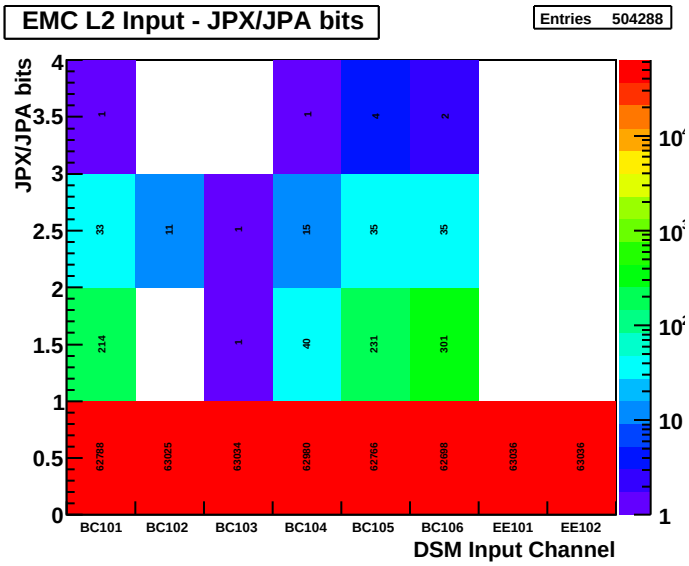

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

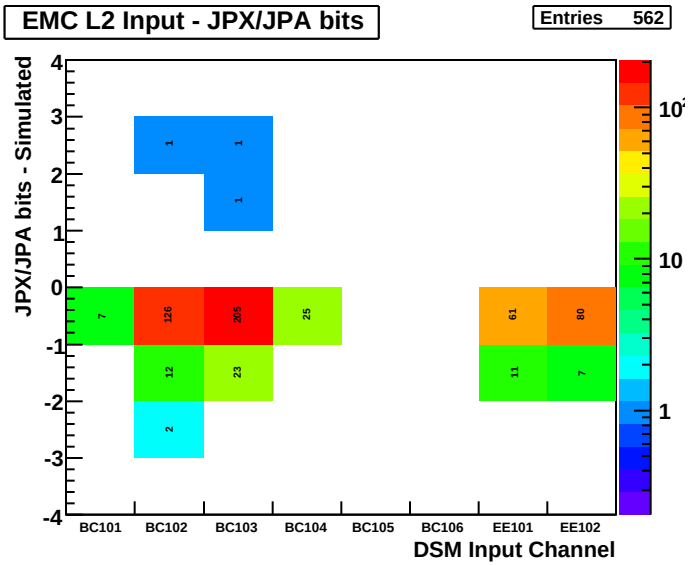

Endcap EMC L1 Input - High Eta Sum
Entries 756432
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

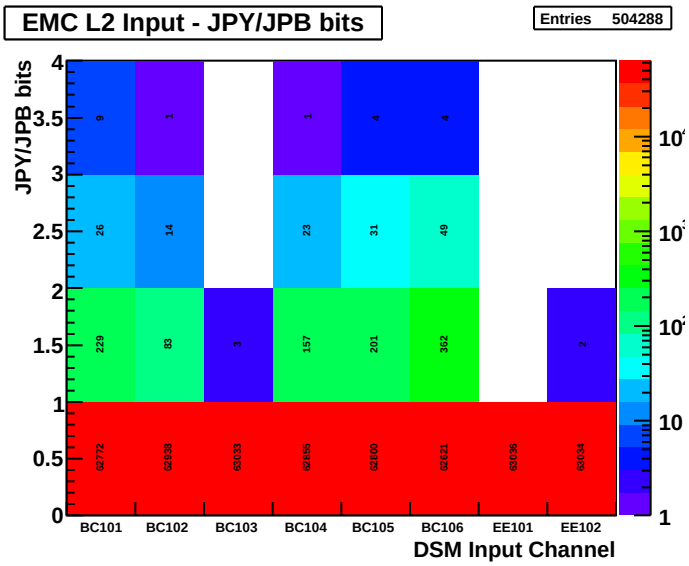

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

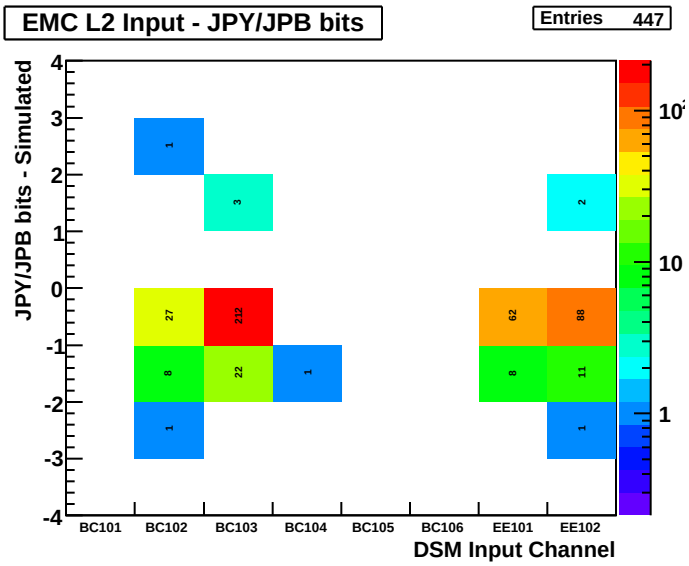

Endcap EMC L1 Input - High Tower Bits
Entries 756432
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

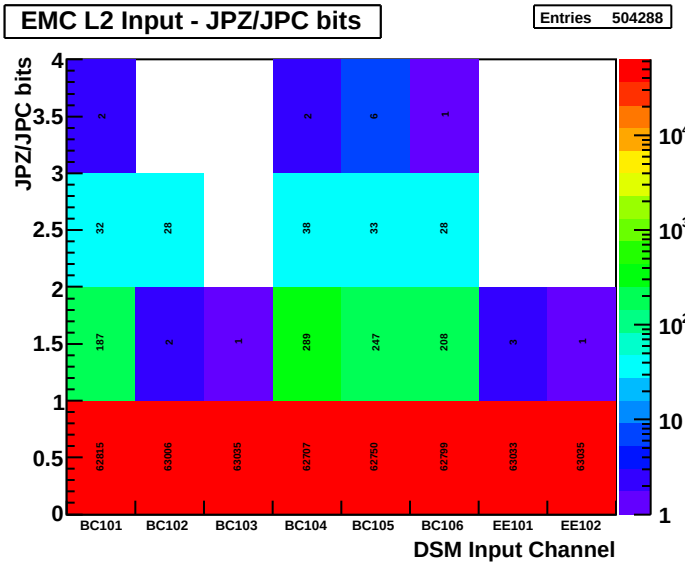

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

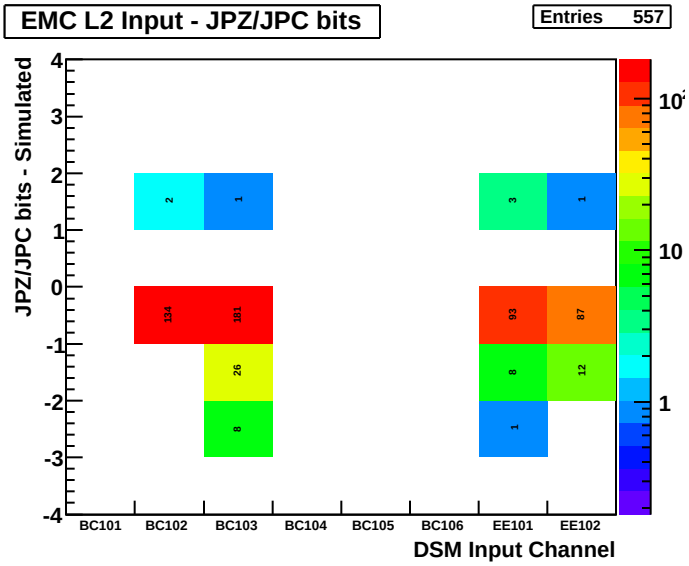

EMC L2 Input - JPX/JPA bits
Entries 504288
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

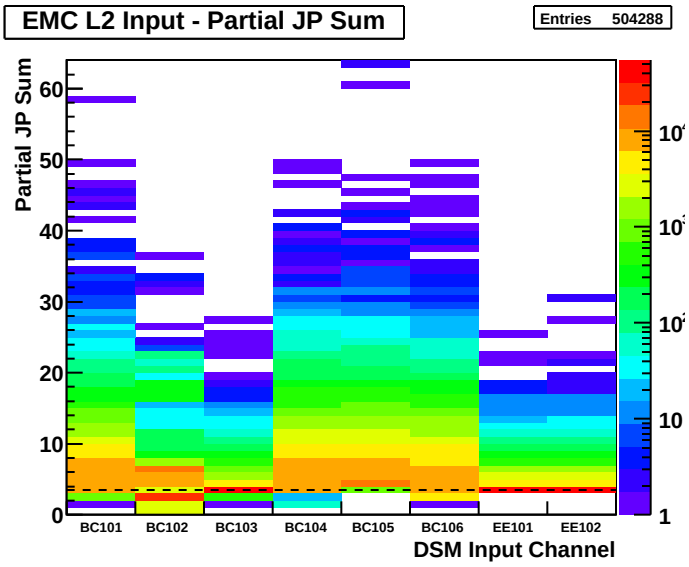

EMC L2 Input - JPX/JPA bits
Entries 562
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

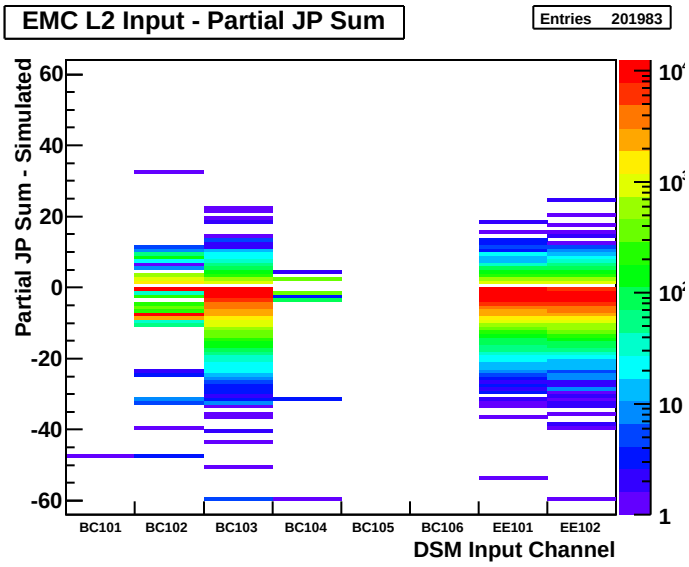

EMC L2 Input - JPY/JPB bits
Entries 504288
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

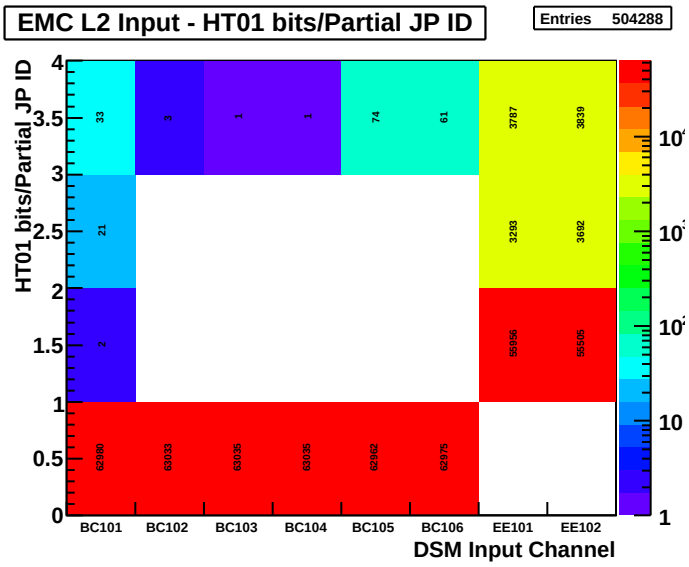

EMC L2 Input - JPY/JPB bits
Entries 447
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

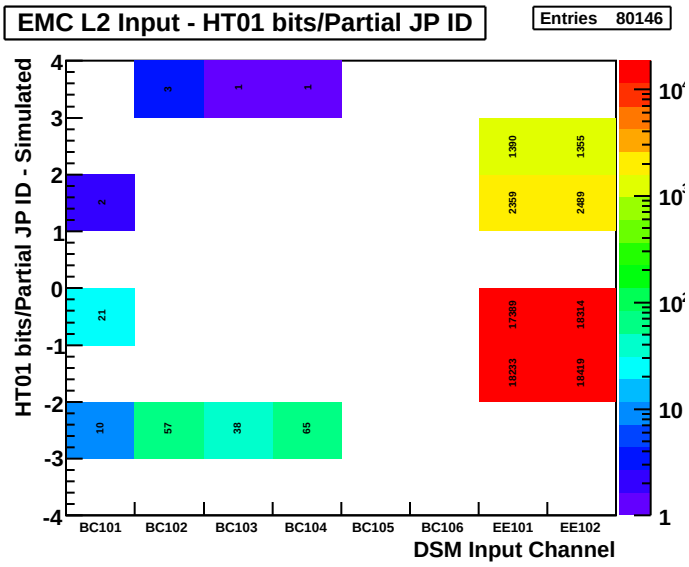

EMC L2 Input - JPZ/JPC bits
Entries 504288
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

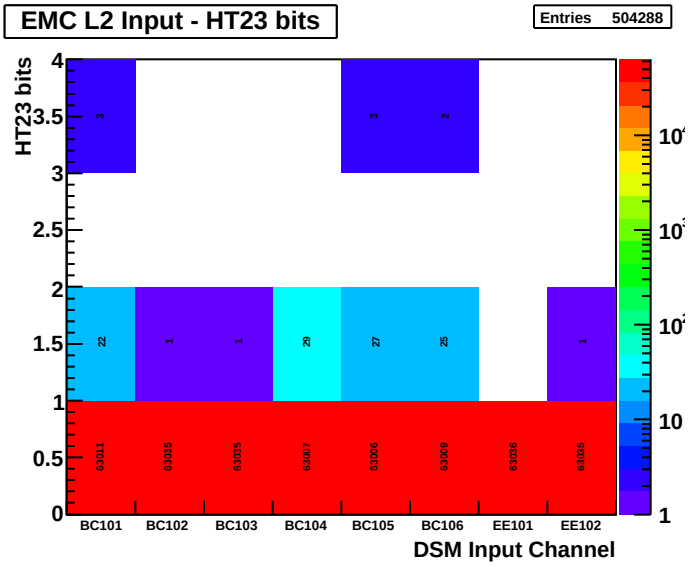

EMC L2 Input - JPZ/JPC bits
Entries 557
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

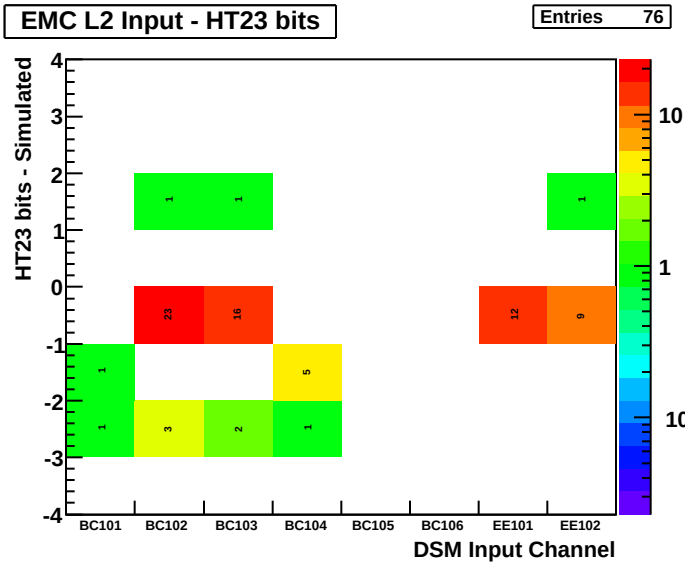

EMC L2 Input - Partial JP Sum
Entries 504288
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

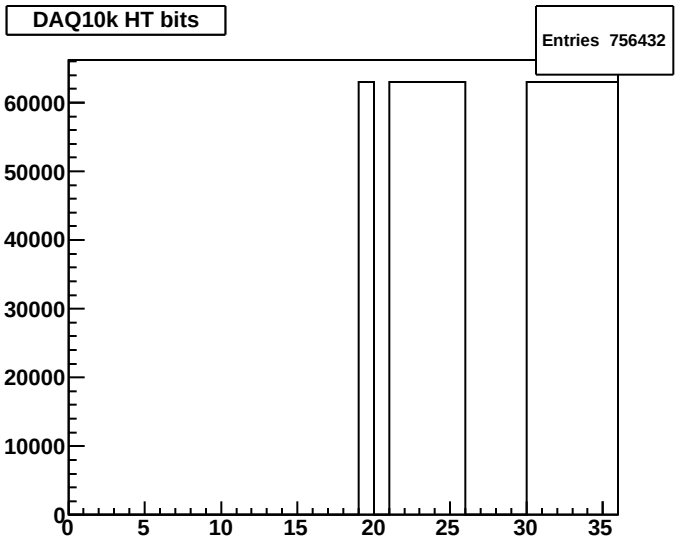

EMC L2 Input - Partial JP Sum
Entries 201983
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

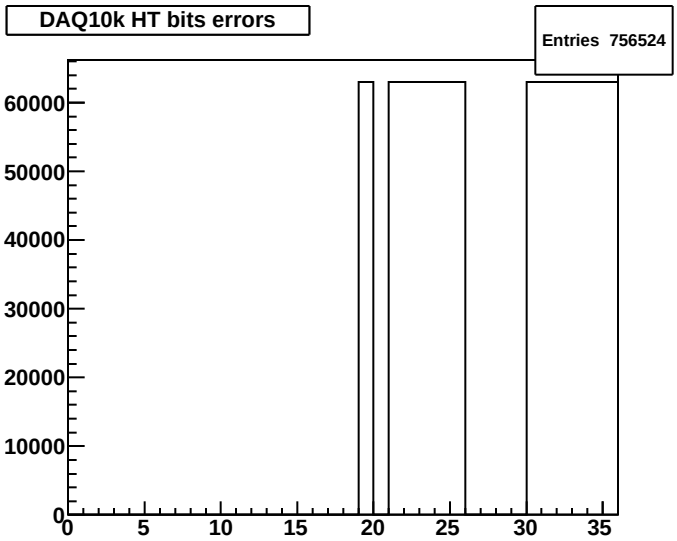

EMC L2 Input - HT01 bits/Partial JP ID
Entries 504288
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

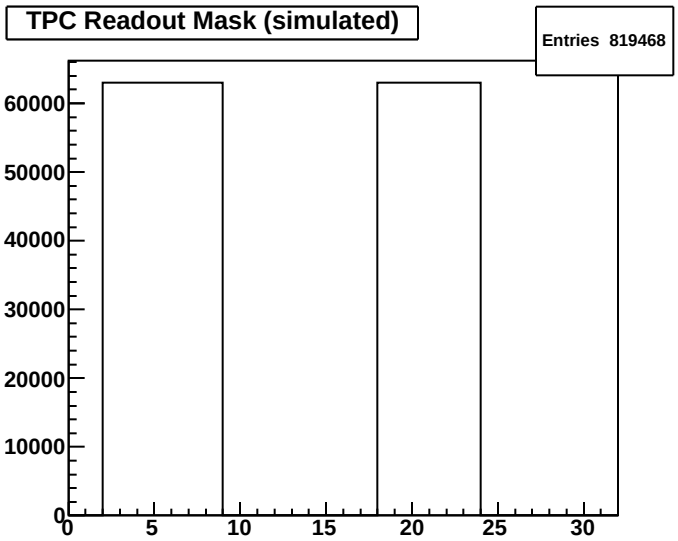

EMC L2 Input - HT01 bits/Partial JP ID
Entries 80146
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

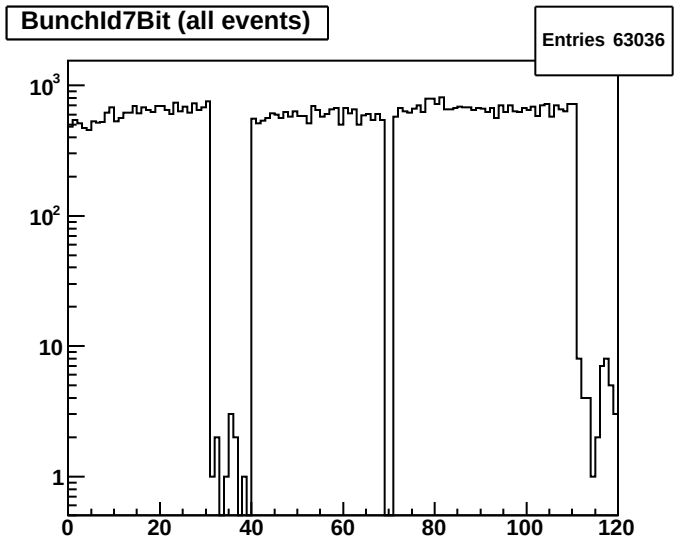

EMC L2 Input - HT23 bits
Entries 504288
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

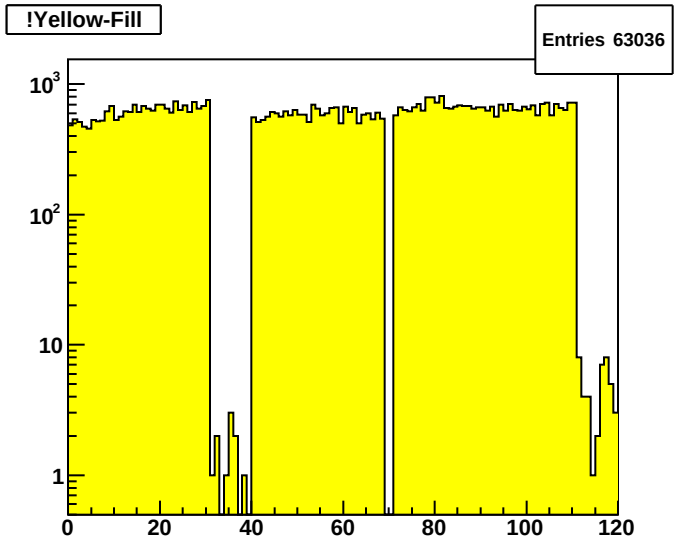

EMC L2 Input - HT23 bits
Entries 76
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

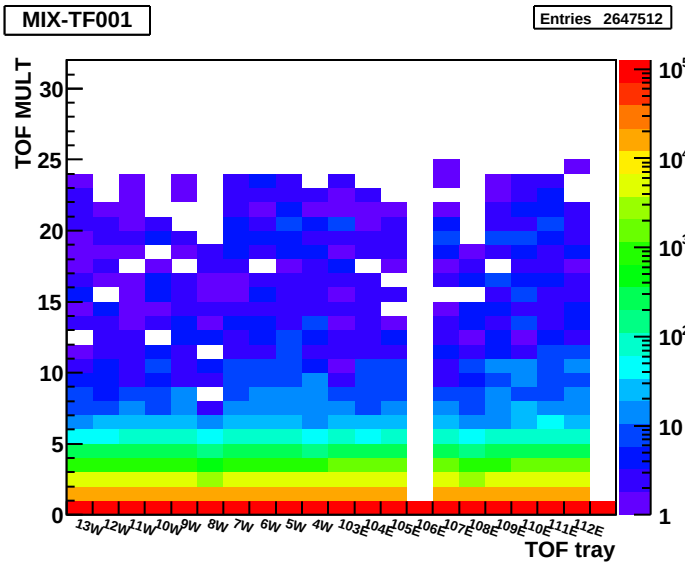

DAQ10k HT bits
Entries 756432
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

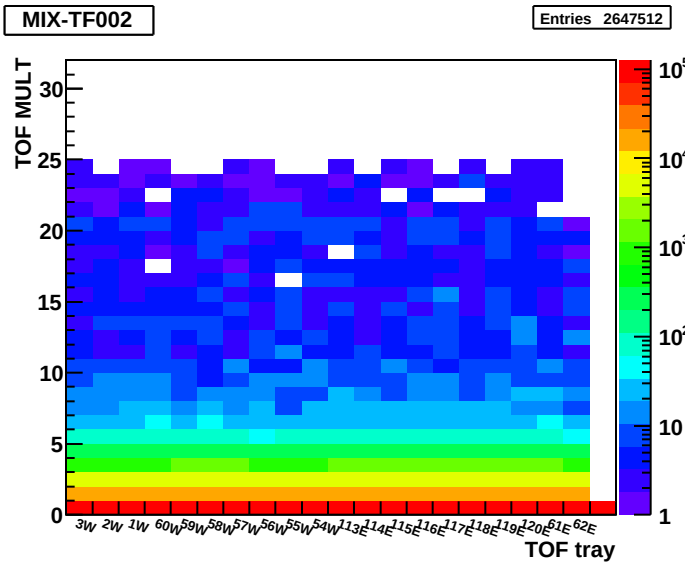

DAQ10k HT bits errors
Entries 756524
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

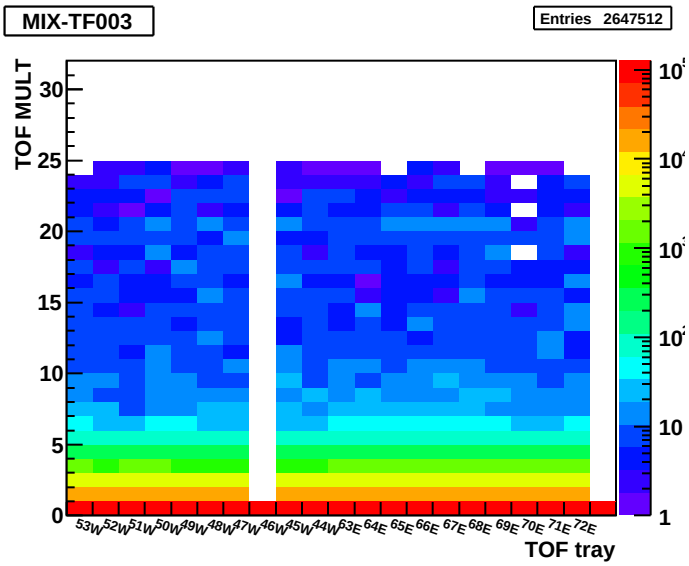

TPC Readout Mask (simulated)
Entries 819468
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

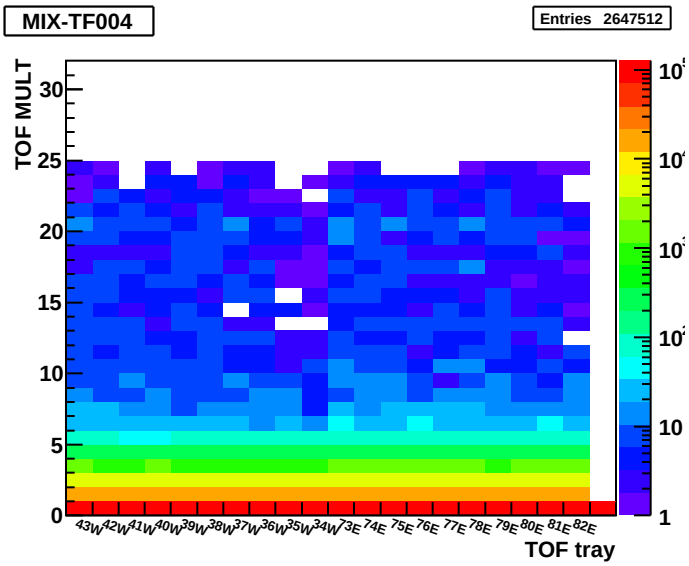

BunchId7Bit (all events)
Entries 63036
10^3
10^2
10
1
0 20 40 60 80 100 120

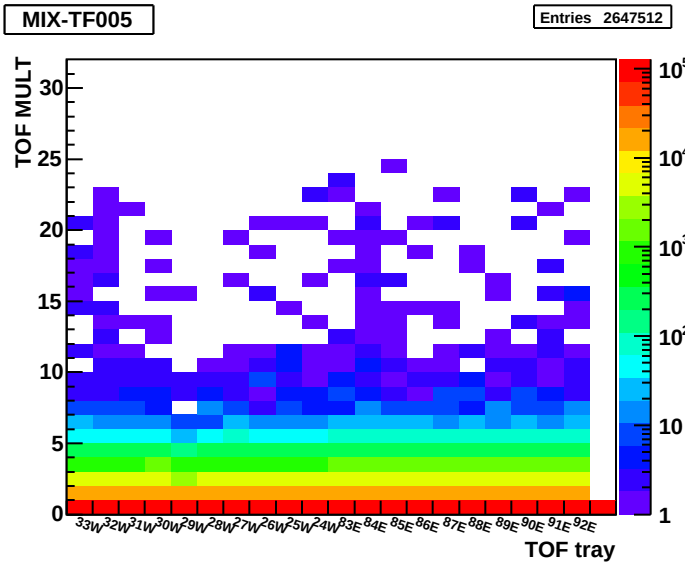

!Yellow-Fill
Entries 63036
10^3
10^2
10
1
0 20 40 60 80 100 120

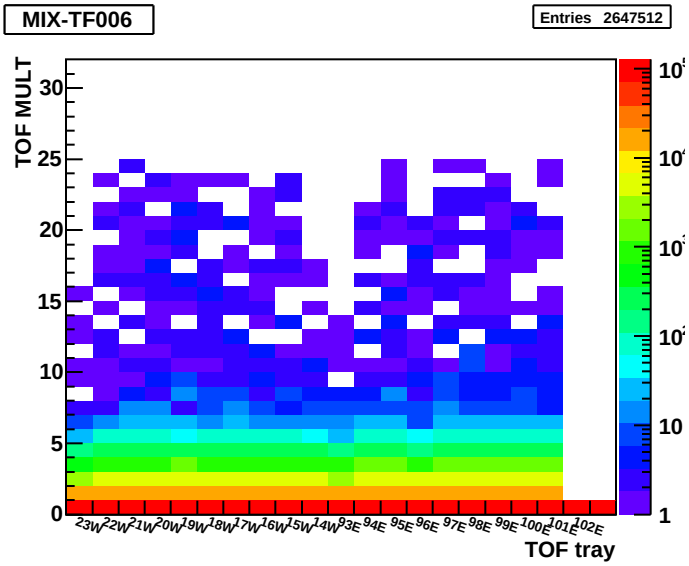

MIX-TF001
Entries 2647512
TOF MULT
TOF tray

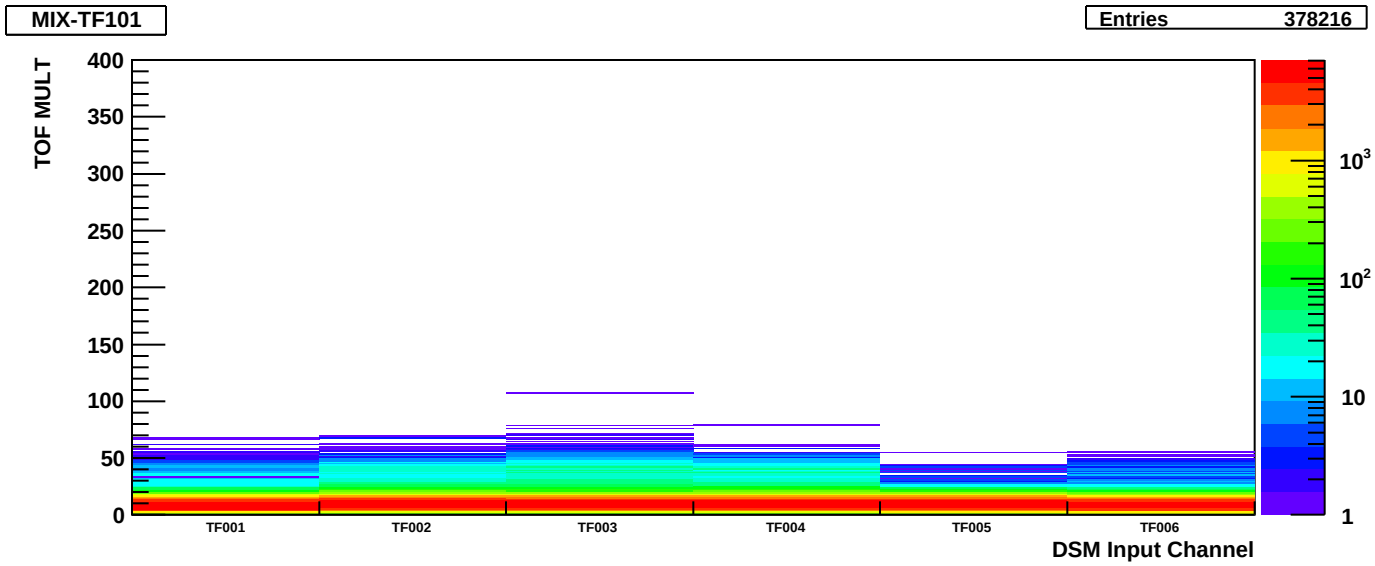

MIX-TF002
Entries 2647512
TOF MULT
TOF tray

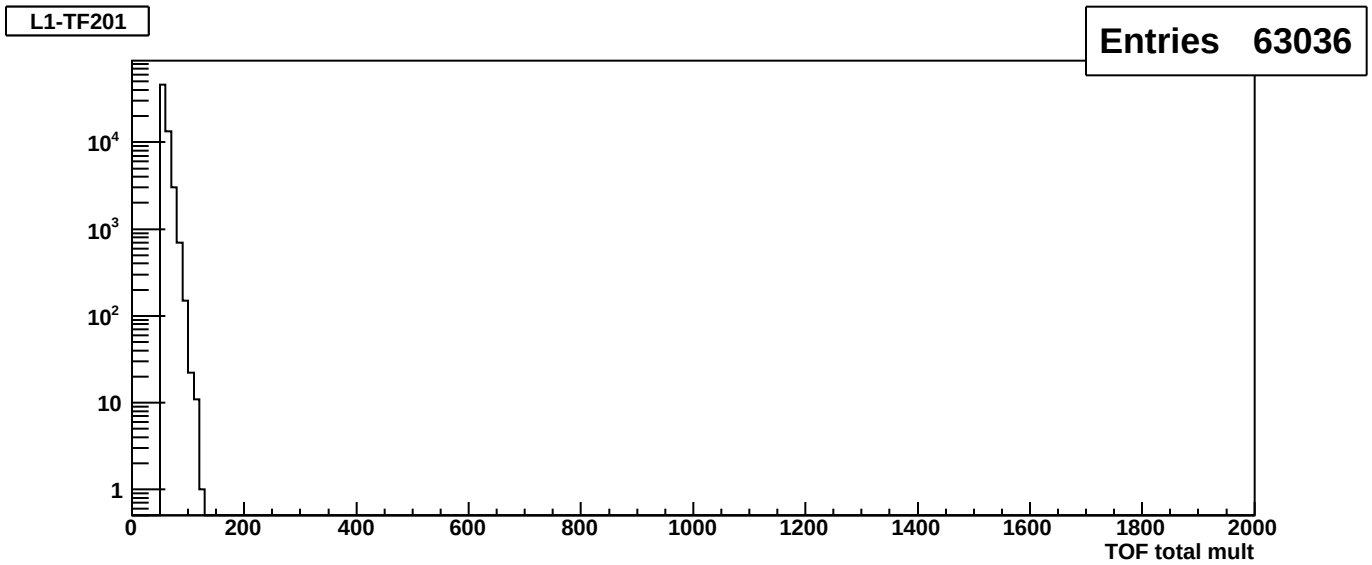

MIX-TF003
Entries 2647512
TOF MULT
TOF tray

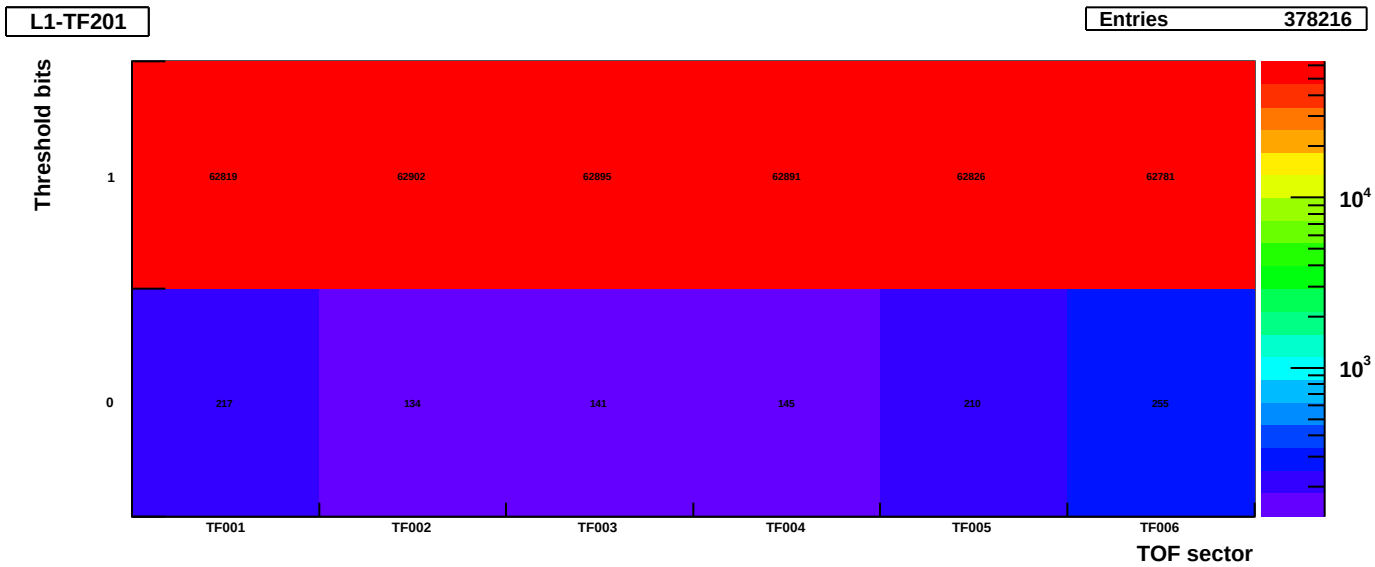

MIX-TF004
Entries 2647512
TOF MULT
TOF tray

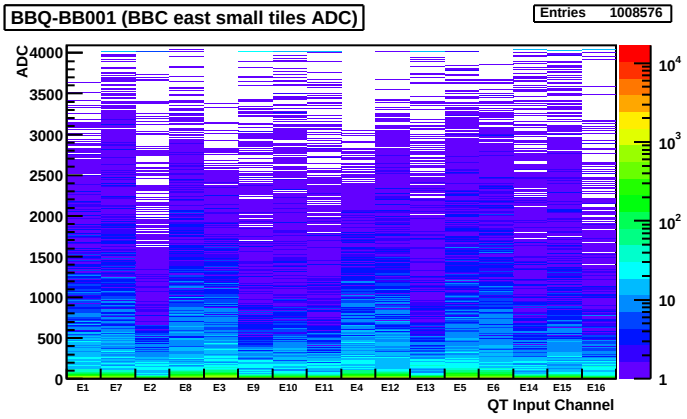

MIX-TF005
Entries 2647512
TOF MULT
TOF tray

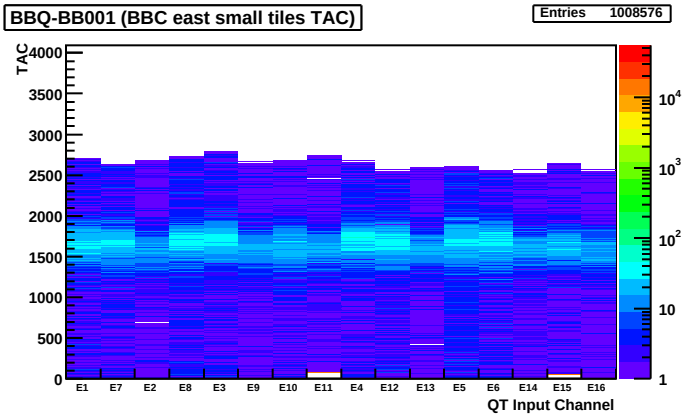

MIX-TF006
Entries 2647512
TOF MULT
TOF tray

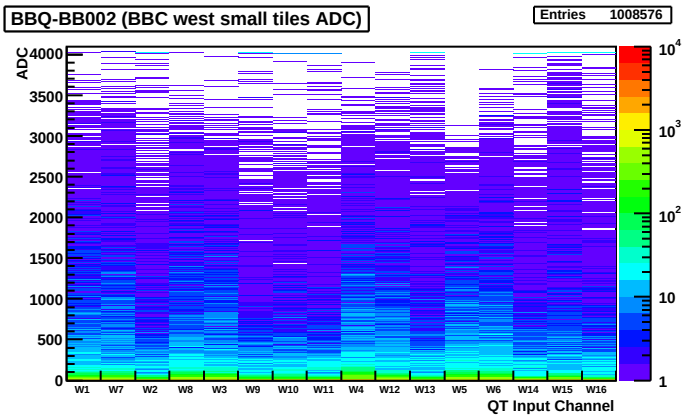

MIX-TF101
Entries 378216
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

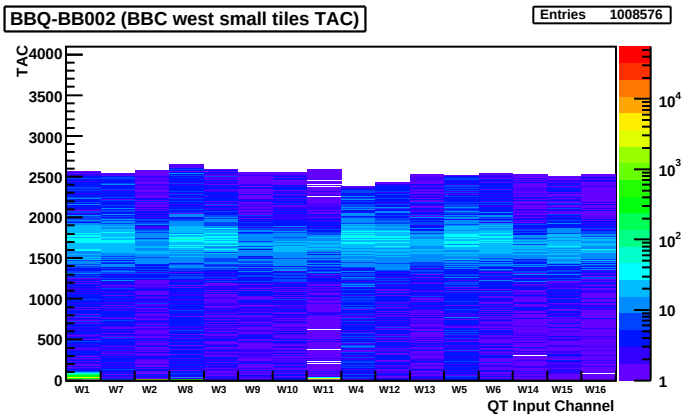

L1-TF201
Entries 63036
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

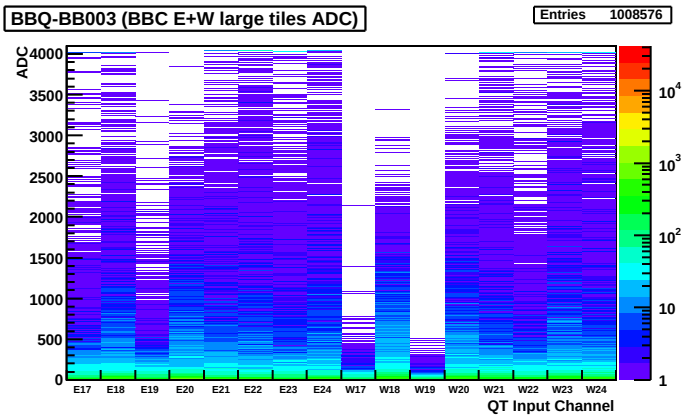

L1-TF201
Entries 378216
Threshold bits
1
0
62819
62902
62895
62891
62826
62781
217
134
141
145
210
255
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

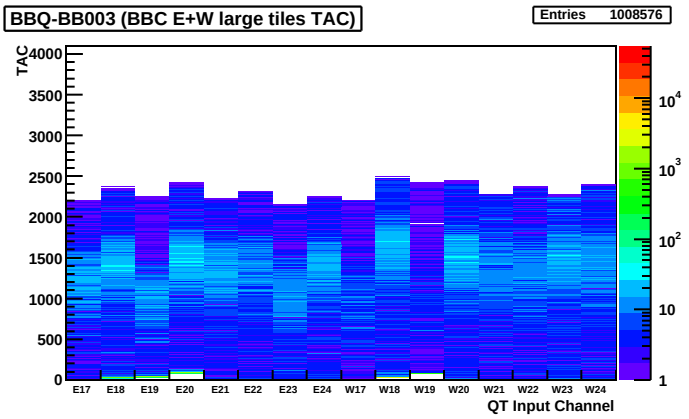

BBQ-BB001 (BBC east small tiles ADC)
Entries 1008576
ADC
QT Input Channel

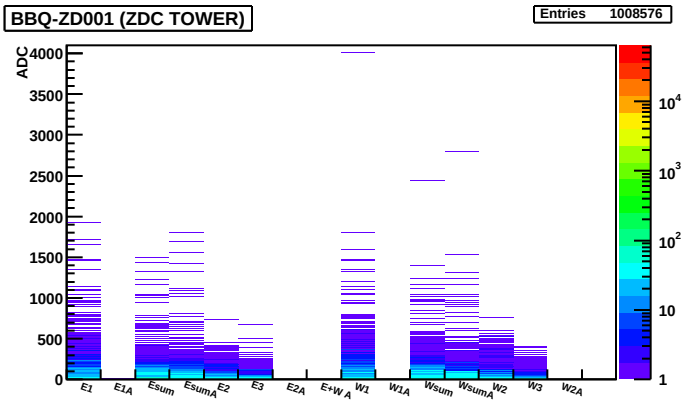

BBQ-BB001 (BBC east small tiles TAC)
Entries 1008576
TAC
QT Input Channel

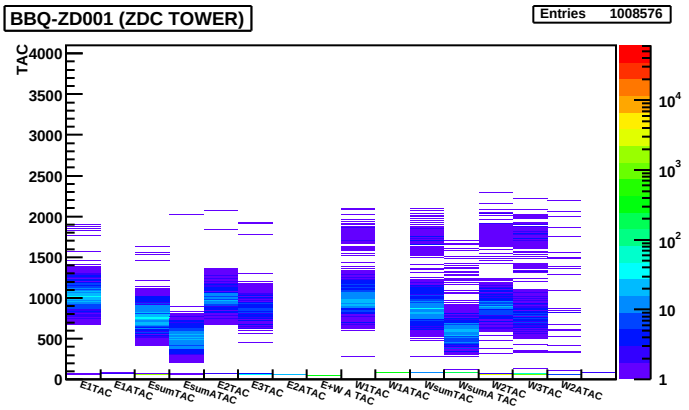

BBQ-BB002 (BBC west small tiles ADC)
Entries 1008576
ADC
QT Input Channel

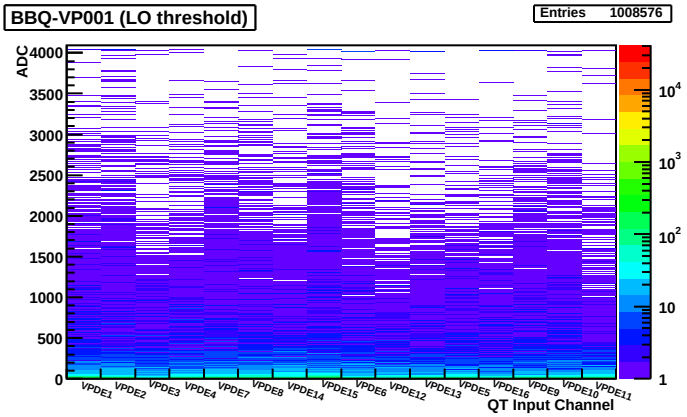

BBQ-BB002 (BBC west small tiles TAC)
Entries 1008576
TAC
QT Input Channel

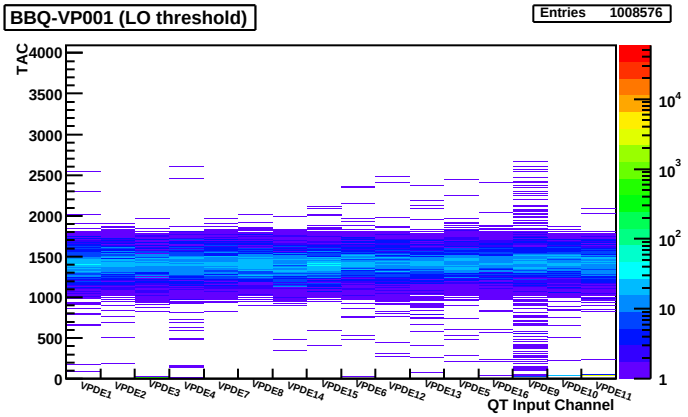

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1008576
ADC
QT Input Channel

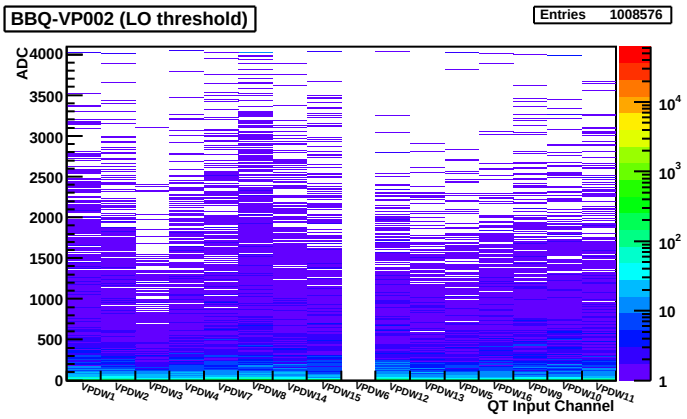

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1008576
TAC
QT Input Channel

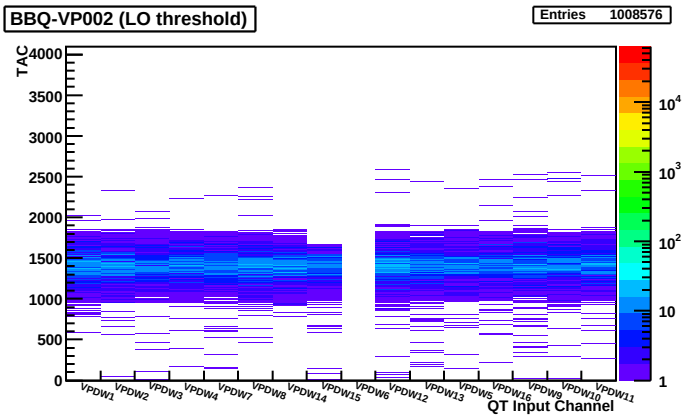

BBQ-ZD001 (ZDC TOWER)
Entries 1008576
ADC

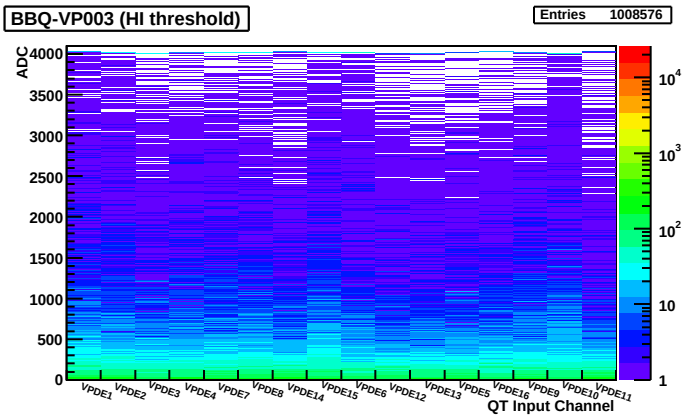

BBQ-ZD001 (ZDC TOWER)
Entries 1008576
TAC

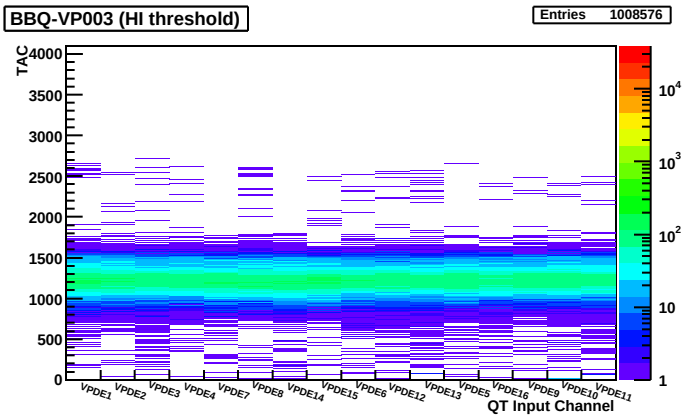

BBQ-VP001 (LO threshold)
Entries 1008576
ADC
QT Input Channel

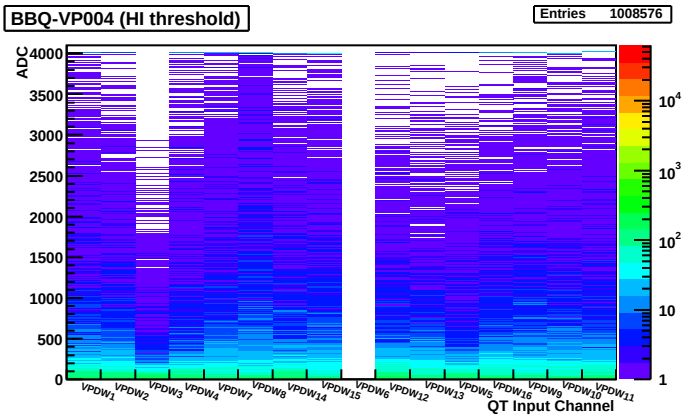

BBQ-VP001 (LO threshold)
Entries 1008576
TAC
QT Input Channel

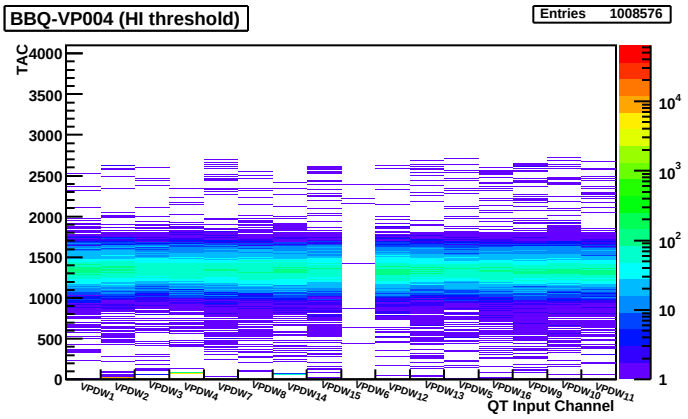

BBQ-VP002 (LO threshold)
Entries 1008576
ADC
QT Input Channel

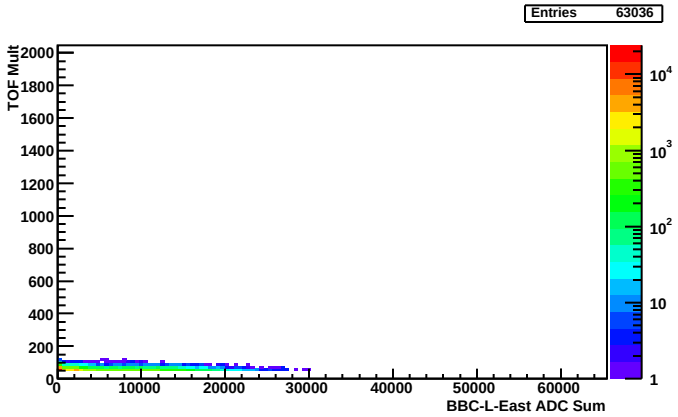

BBQ-VP002 (LO threshold)
Entries 1008576
TAC
QT Input Channel

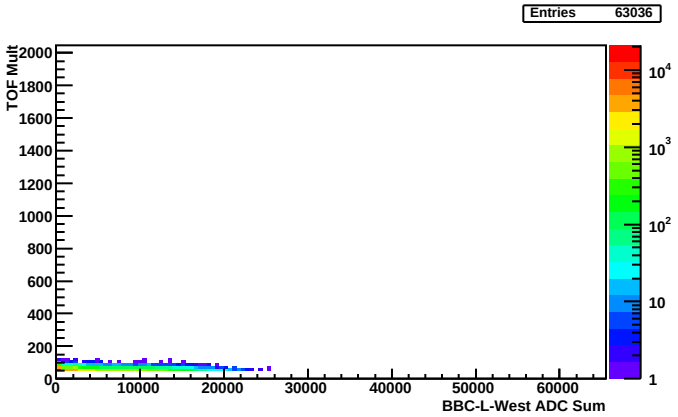

BBQ-VP003 (HI threshold)
Entries 1008576
ADC
QT Input Channel

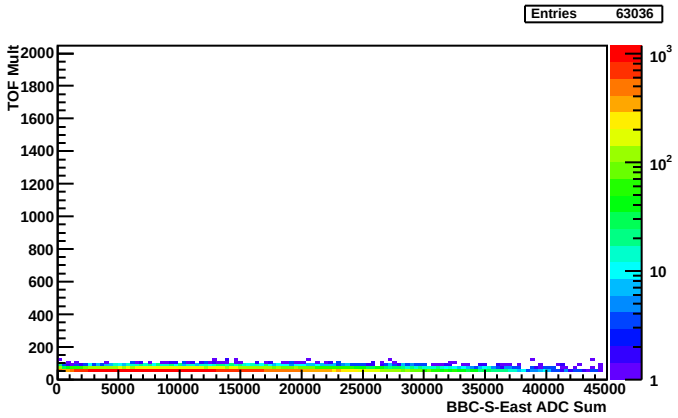

BBQ-VP003 (HI threshold)
Entries 1008576
TAC
QT Input Channel

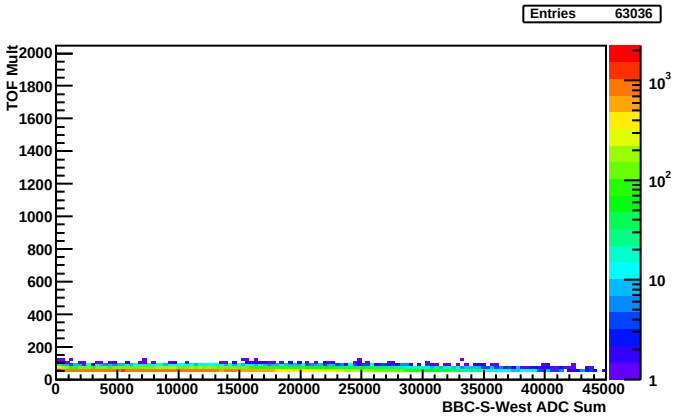

BBQ-VP004 (HI threshold)
Entries 1008576
ADC
QT Input Channel

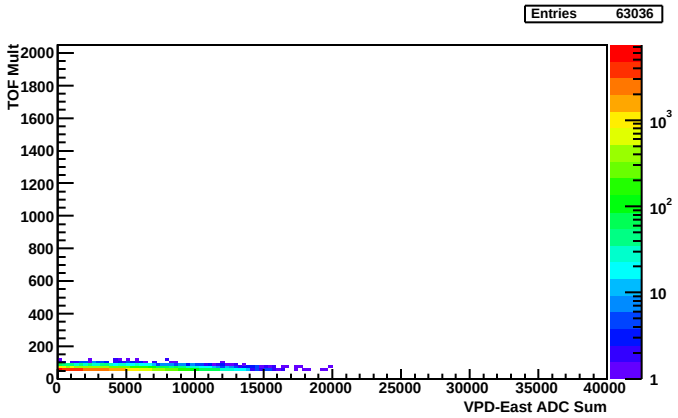

BBQ-VP004 (HI threshold)
Entries 1008576
TAC
QT Input Channel

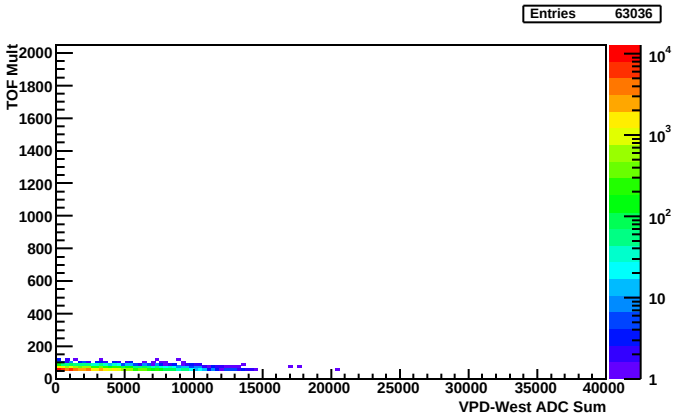

Entries 63036
TOF Mult
BBC-L-East ADC Sum

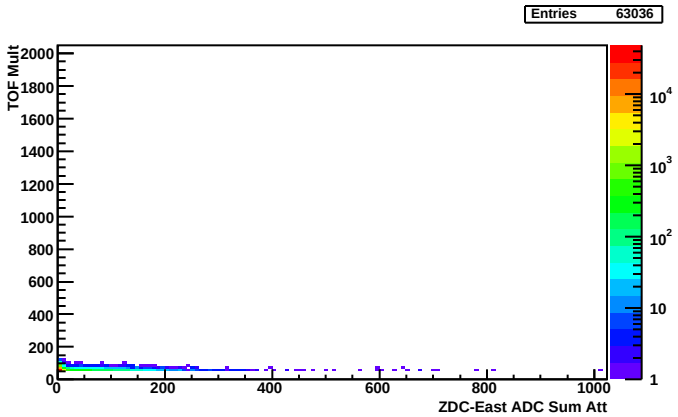

Entries 63036
TOF Mult
BBC-L-West ADC Sum

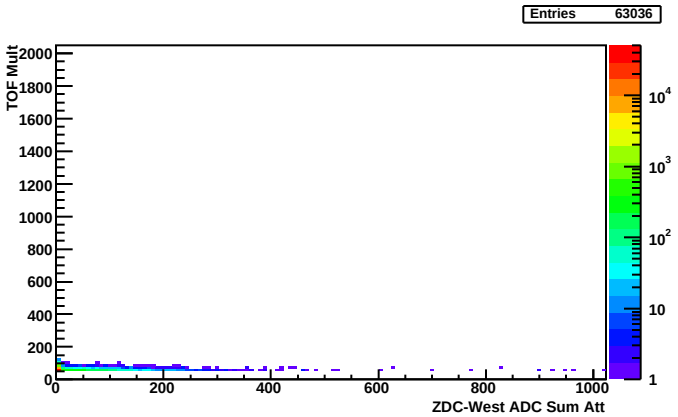

Entries 63036
TOF Mult
BBC-S-East ADC Sum

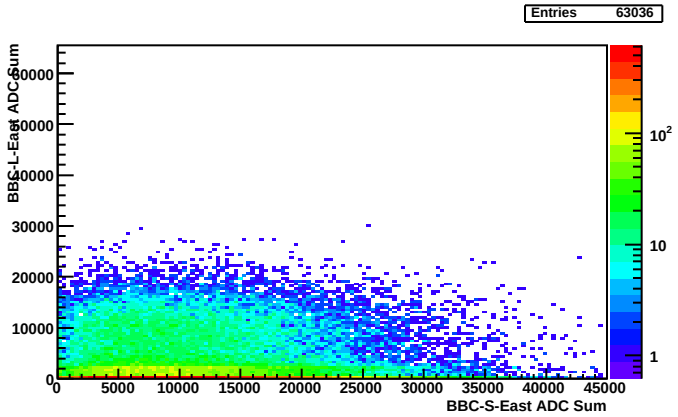

Entries 63036
TOF Mult
BBC-S-West ADC Sum

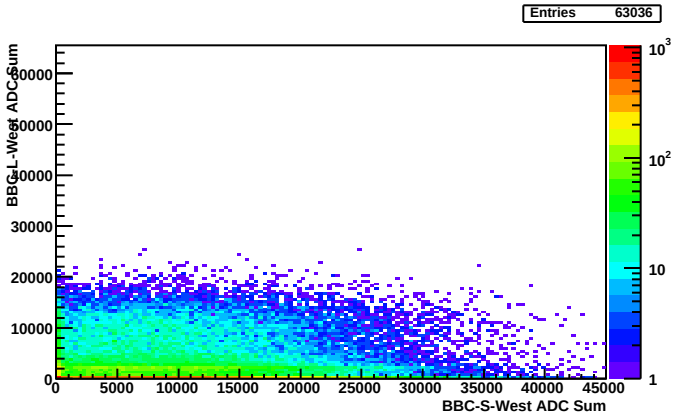

Entries 63036
TOF Mult
VPD-East ADC Sum

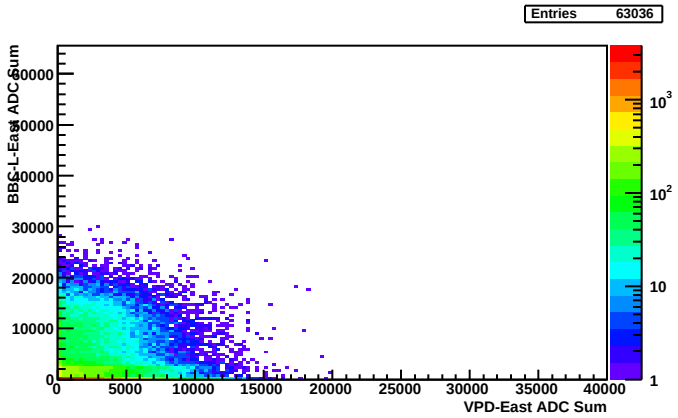

Entries 63036
TOF Mult
VPD-West ADC Sum

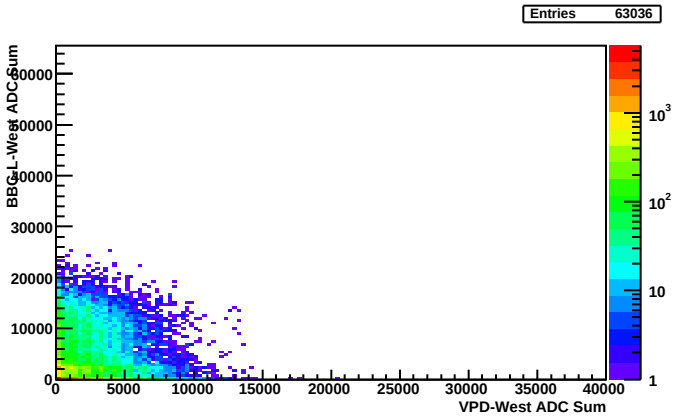

Entries 63036
TOF Mult
ZDC-East ADC Sum Att

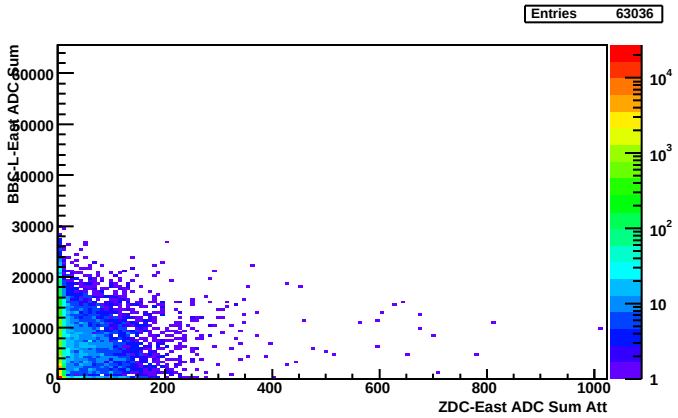

Entries 63036
TOF Mult
ZDC-West ADC Sum Att

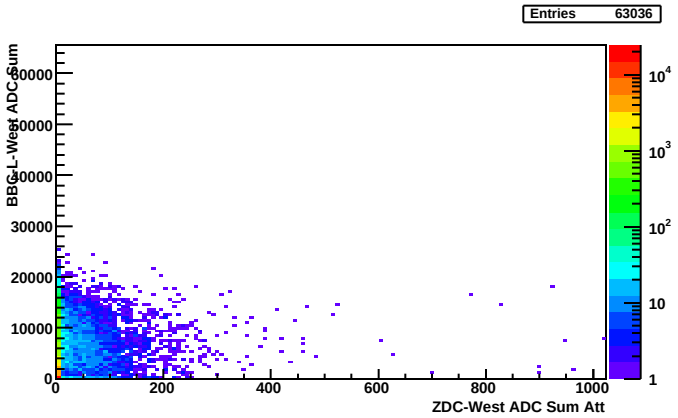

Entries 63036
BBC-L-East ADC Sum
BBC-S-East ADC Sum

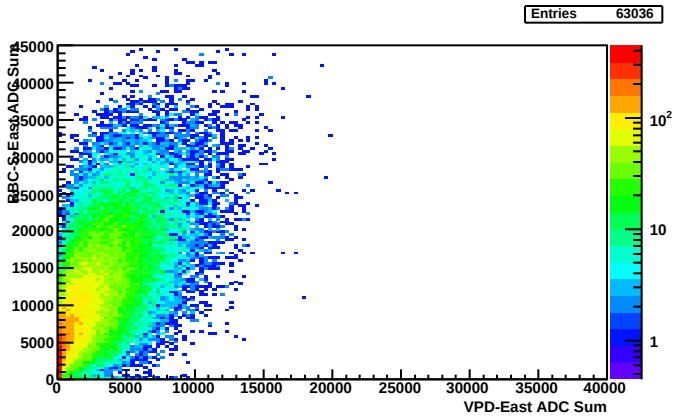

Entries 63036
BBC-L-West ADC Sum
BBC-S-West ADC Sum

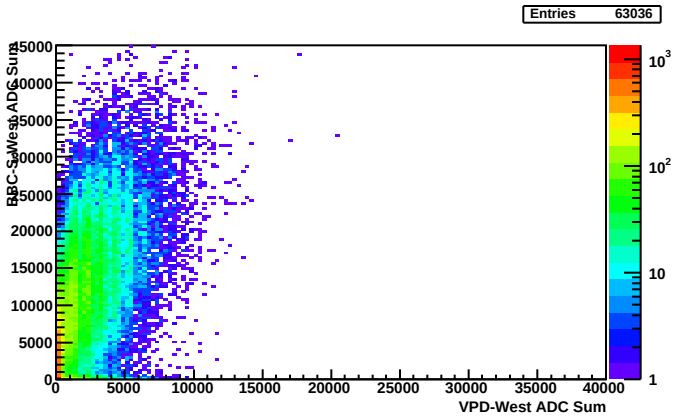

Entries 63036
BBC-L-East ADC Sum
VPD-East ADC Sum

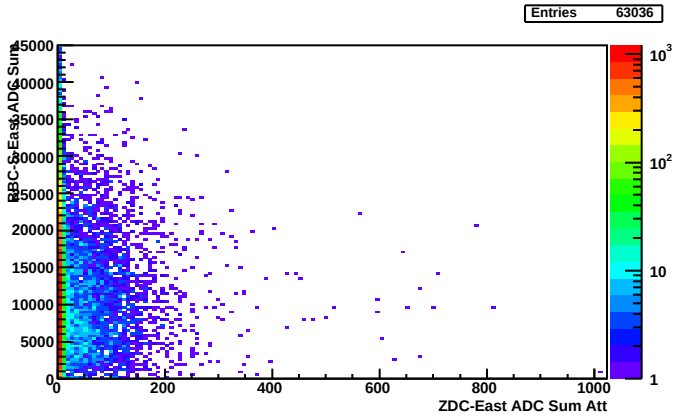

Entries 63036
BBC-L-West ADC Sum
VPD-West ADC Sum

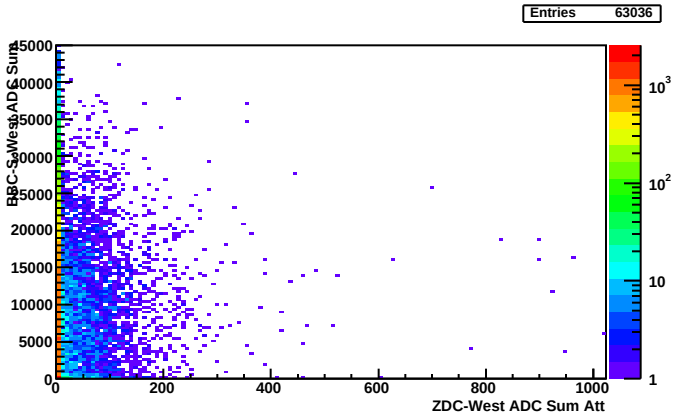

Entries 63036
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

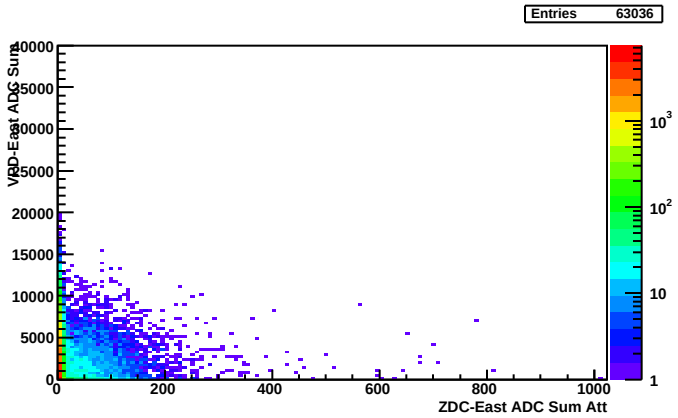

Entries 63036
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

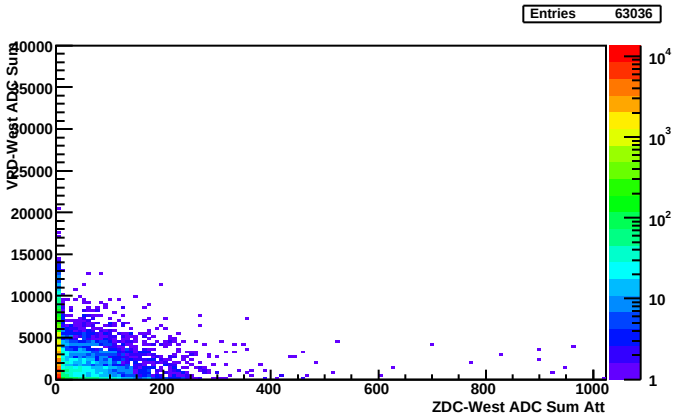

Entries 63036
BBC-S-East ADC Sum
VPD-East ADC Sum

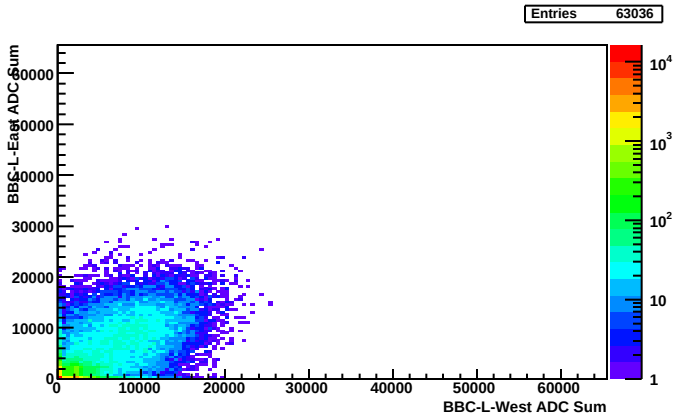

Entries 63036
BBC-S-West ADC Sum
VPD-West ADC Sum

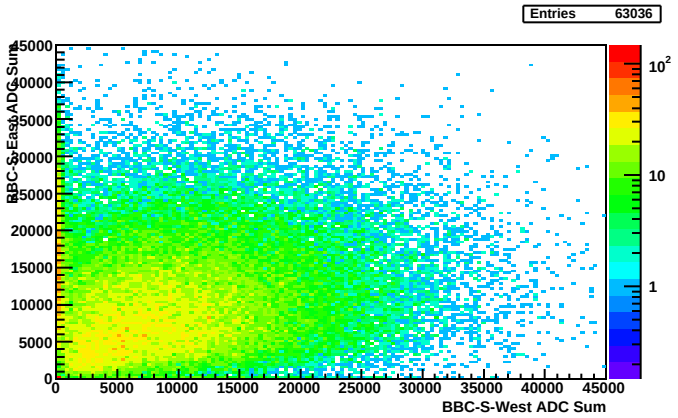

Entries 63036
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

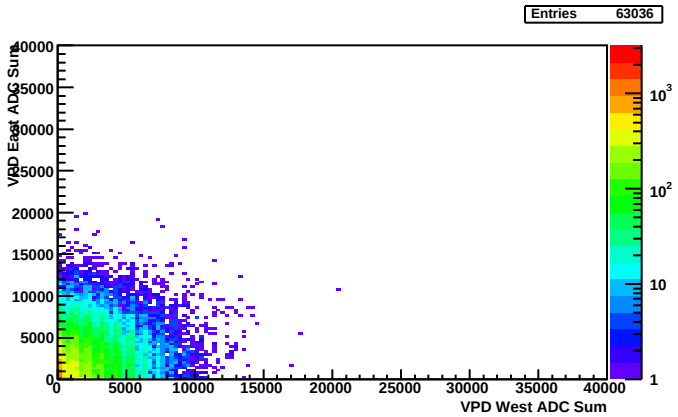

Entries 63036
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

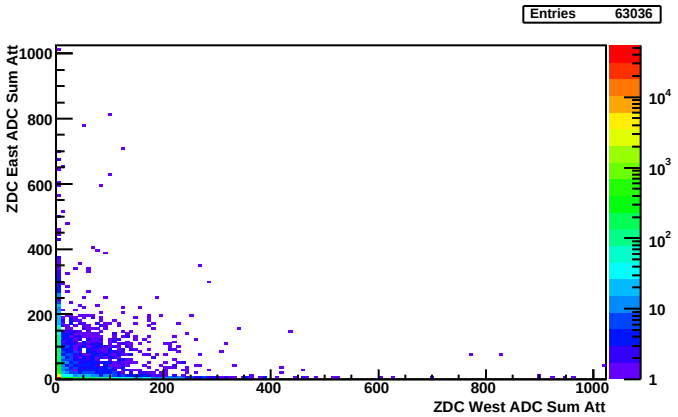

Entries 63036
VPD-East ADC Sum
ZDC-East ADC Sum Att

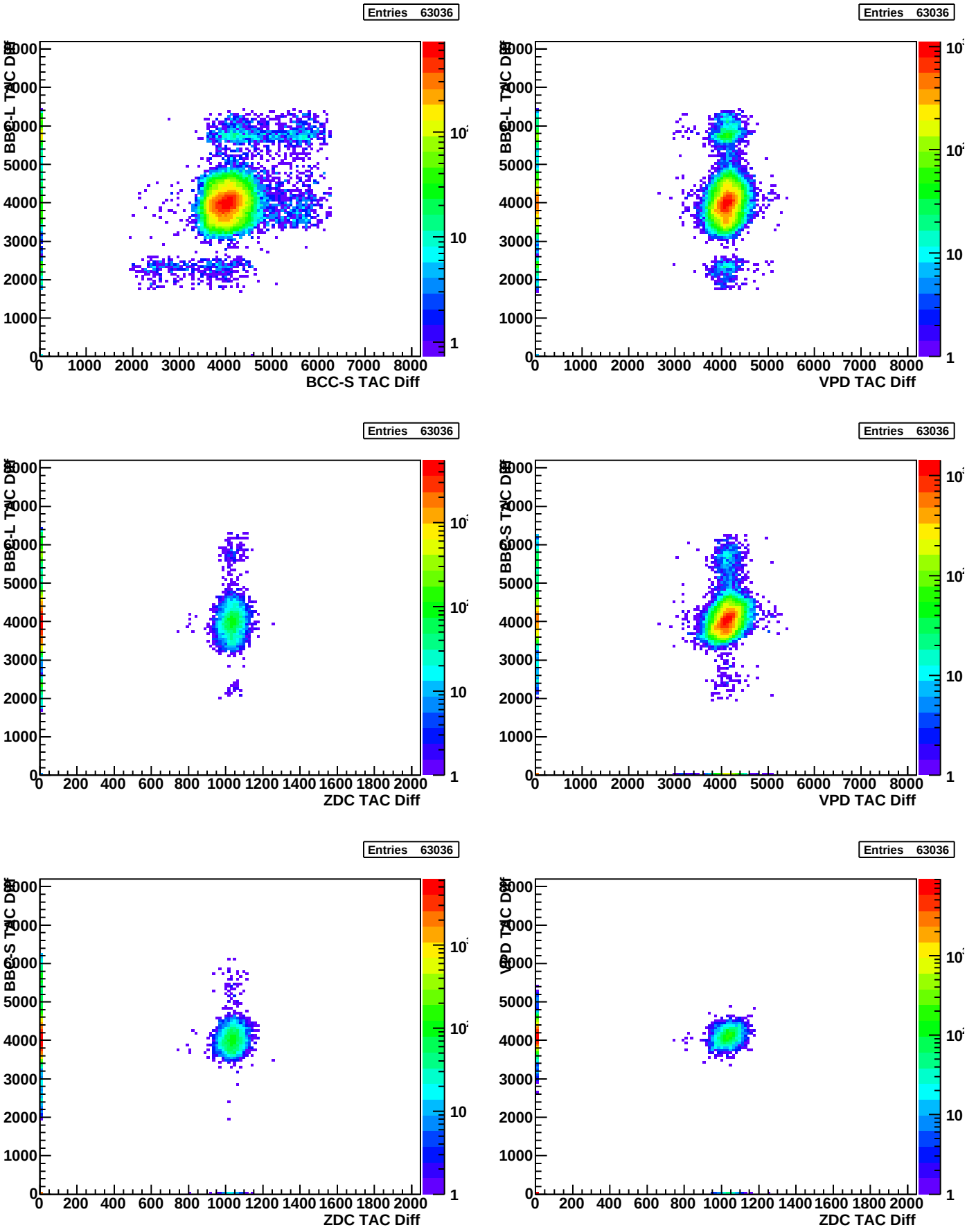

Entries 63036
VPD-West ADC Sum
ZDC-West ADC Sum Att

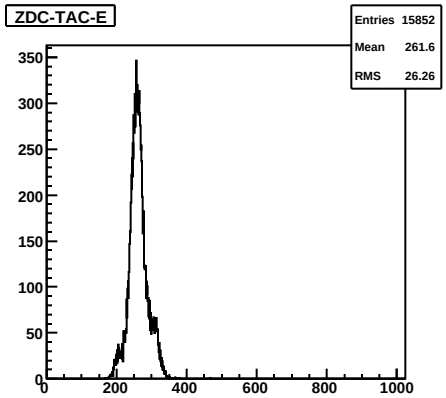

Entries 63036
BBC-L-East ADC Sum
BBC-L-West ADC Sum

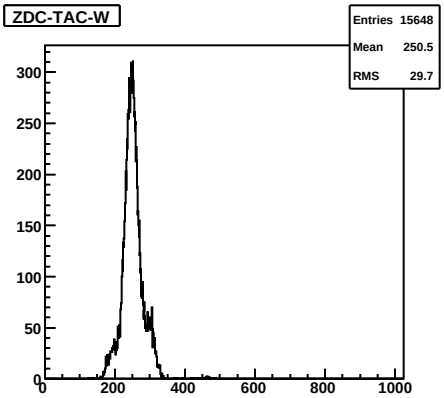

Entries 63036
BBC-S-East ADC Sum
BBC-S-West ADC Sum

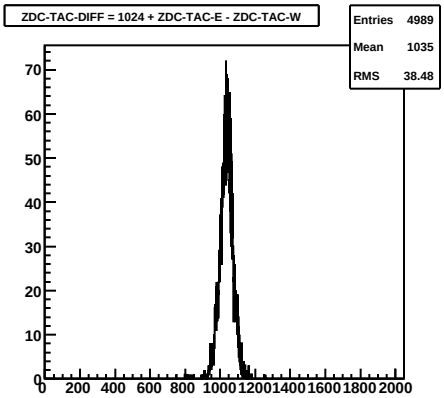

Entries 63036
VPD East ADC Sum
VPD West ADC Sum

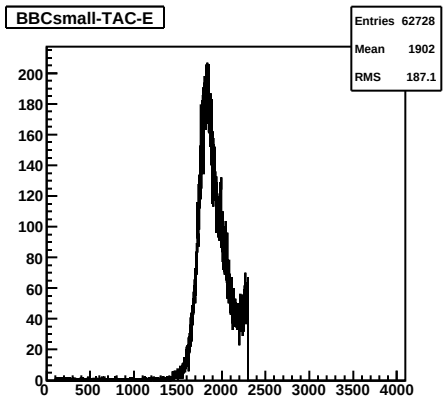

Entries 63036
ZDC East ADC Sum Att
ZDC West ADC Sum Att

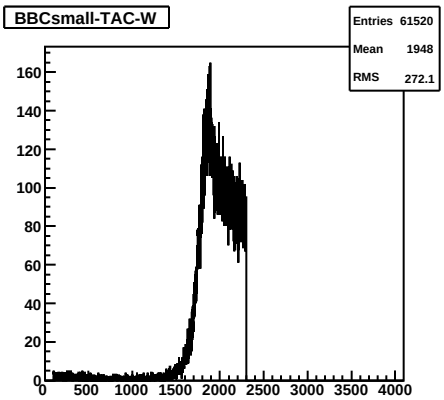

Entries 63036
BBC-L TAC Diff
BCC-S TAC Diff
Entries 63036
BBC-L TAC Diff
VPD TAC Diff
Entries 63036
BBC-L TAC Diff
ZDC TAC Diff
Entries 63036
BBC-S TAC Diff
VPD TAC Diff
Entries 63036
BBC-S TAC Diff
ZDC TAC Diff
Entries 63036
VPD TAC Diff
ZDC TAC Diff

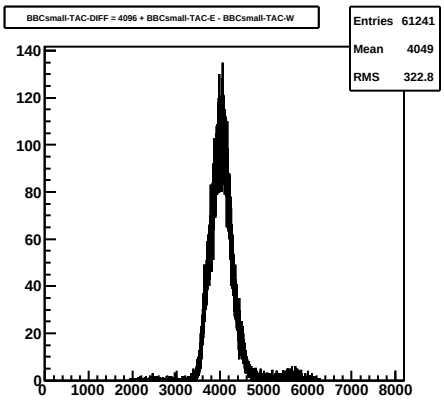

ZDC-TAC-E
Entries 15852
Mean 261.6
RMS 26.26

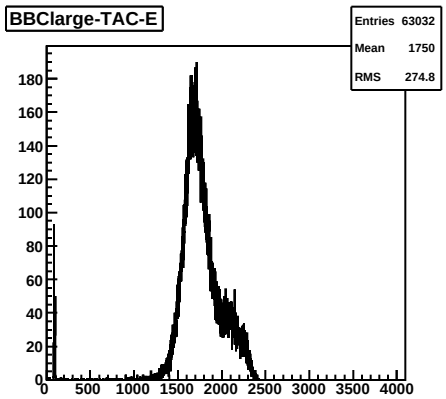

ZDC-TAC-W
Entries 15648
Mean 250.5
RMS 29.7

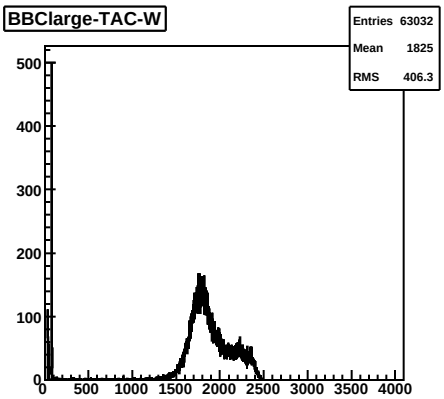

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 4989
Mean 1035
RMS 38.48

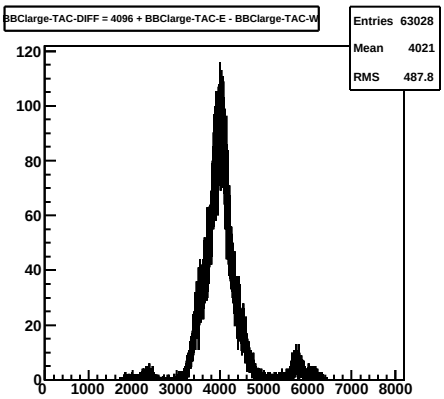

BBCsmall-TAC-E
Entries 62728
Mean 1902
RMS 187.1

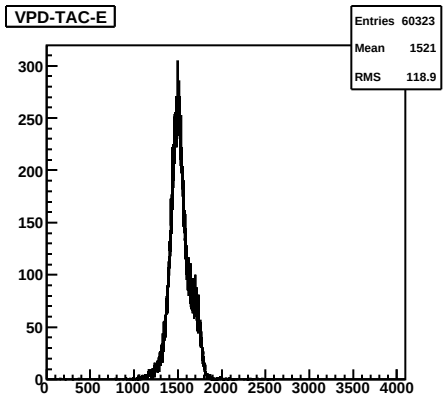

BBCsmall-TAC-W
Entries 61520
Mean 1948
RMS 272.1

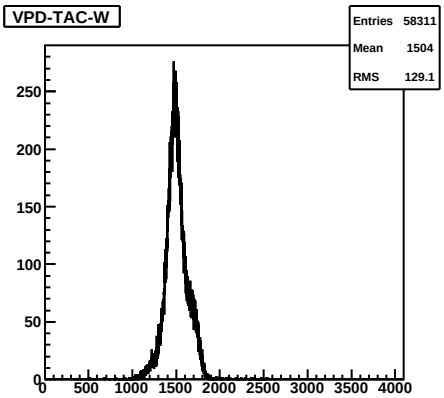

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 61241
Mean 4049
RMS 322.8

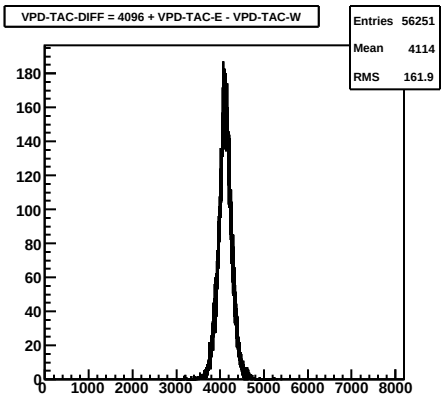

BBClarge-TAC-E
Entries 63032
Mean 1750
RMS 274.8

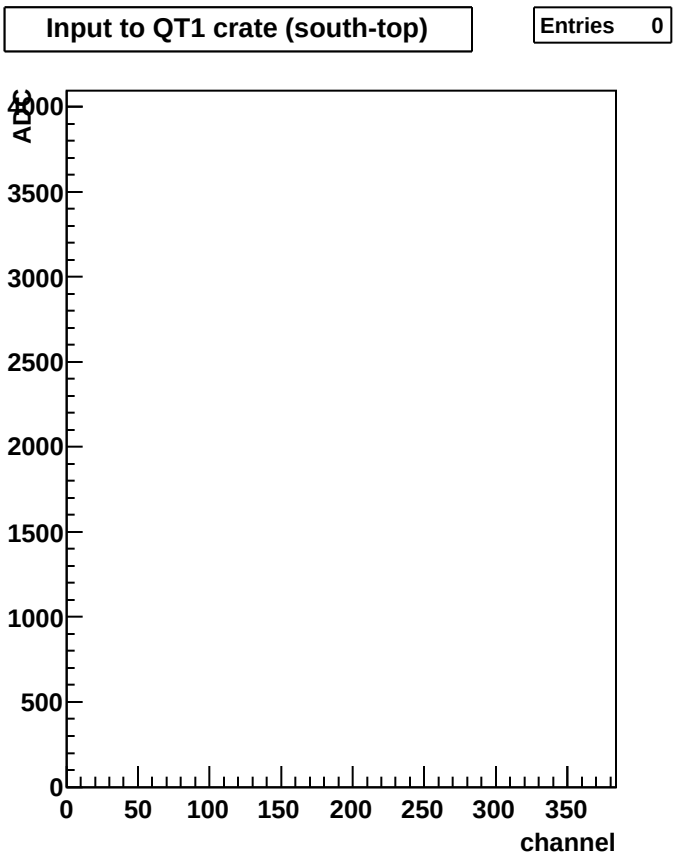

BBClarge-TAC-W
Entries 63032
Mean 1825
RMS 406.3

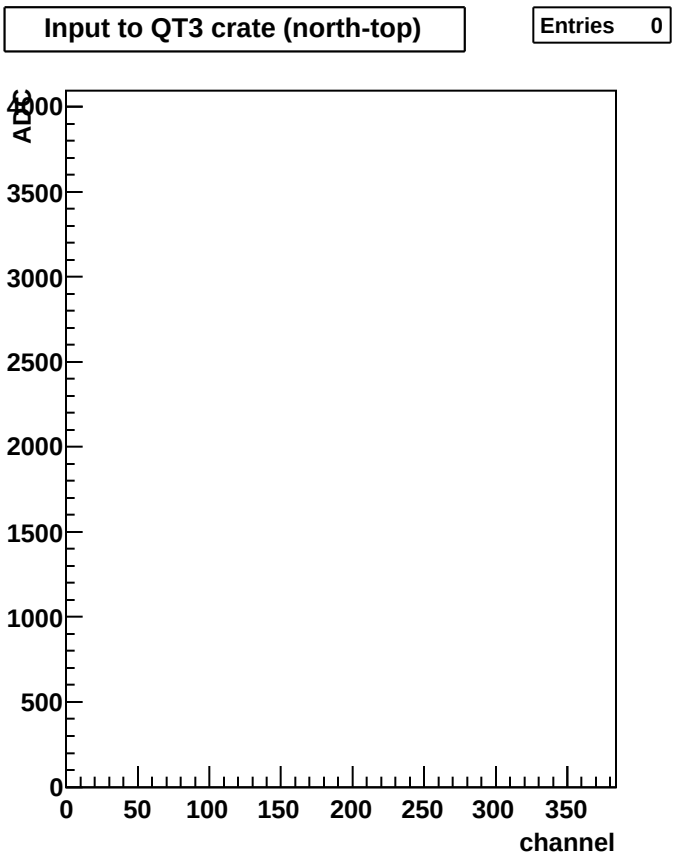

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 63028
Mean 4021
RMS 487.8

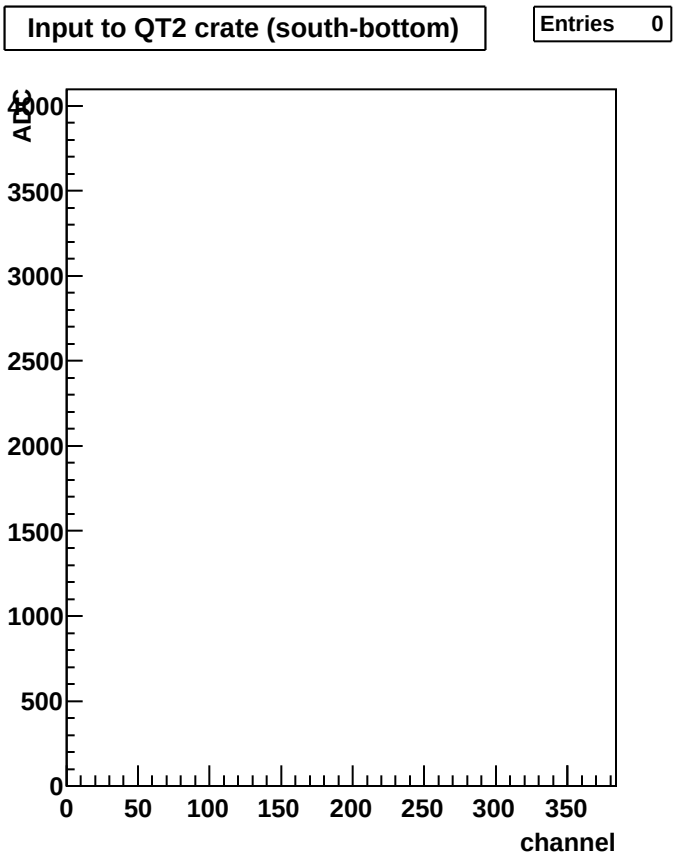

VPD-TAC-E
Entries 60323
Mean 1521
RMS 118.9

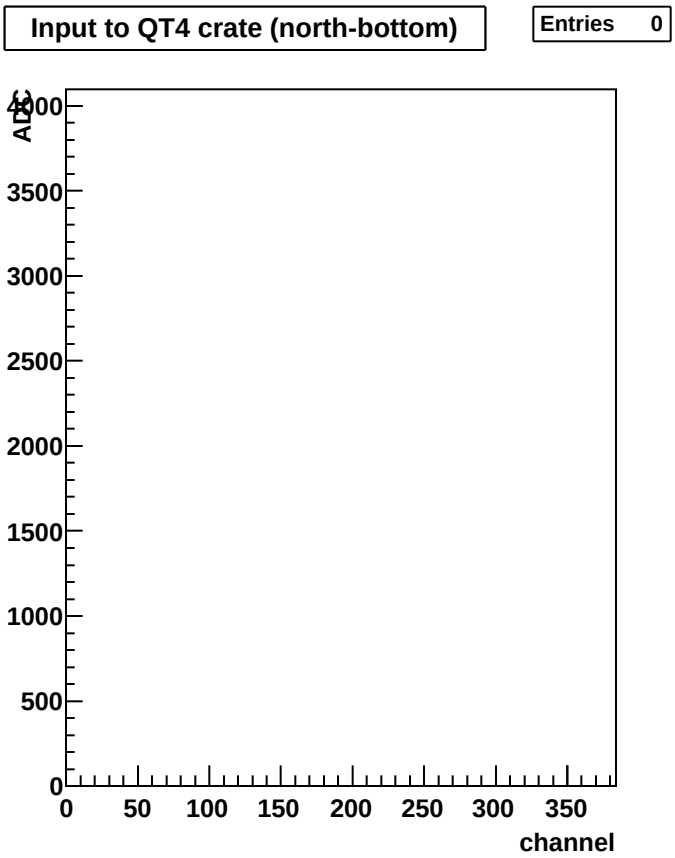

VPD-TAC-W
Entries 58311
Mean 1504
RMS 129.1

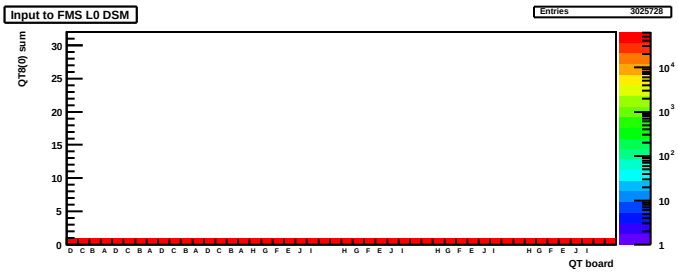

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 56251
Mean 4114
RMS 161.9

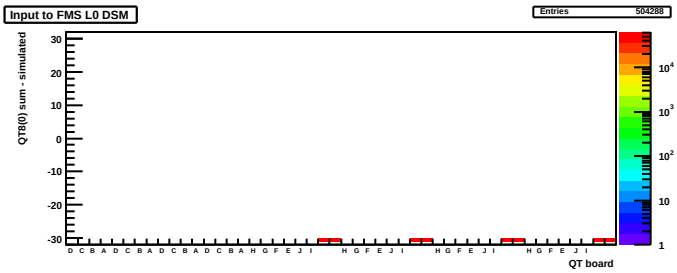

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

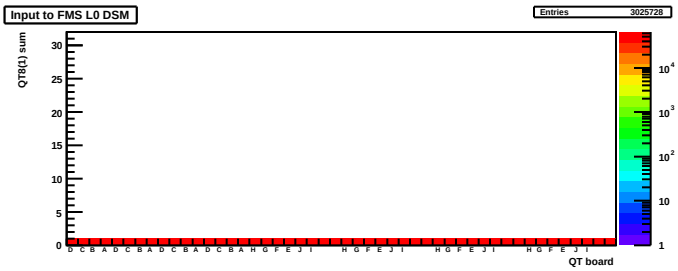

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

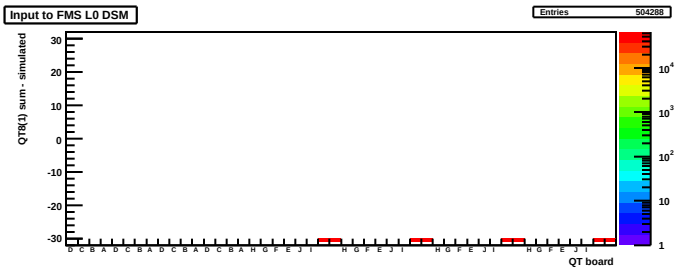

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

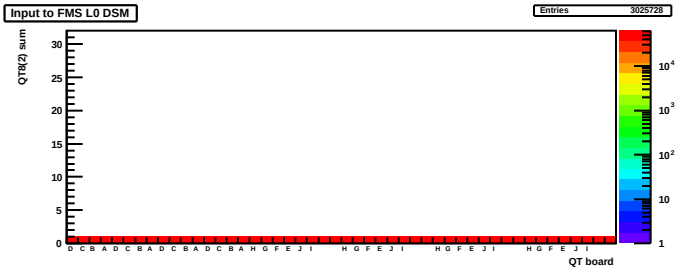

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

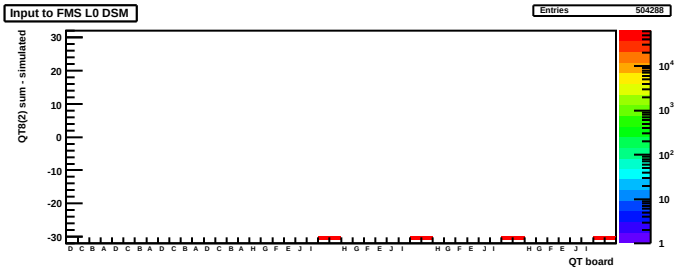

Input to FMS L0 DSM
Entries 3025728
QT8(0) sum
QT board

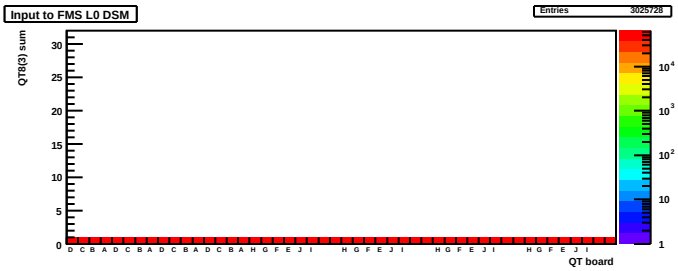

Input to FMS L0 DSM
Entries 504288
QT8(0) sum - simulated
QT board

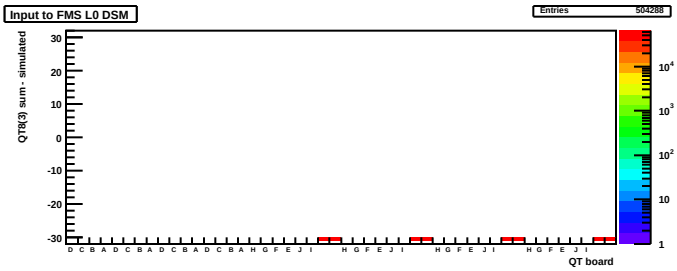

Input to FMS L0 DSM
Entries 3025728
QT8(1) sum
QT board

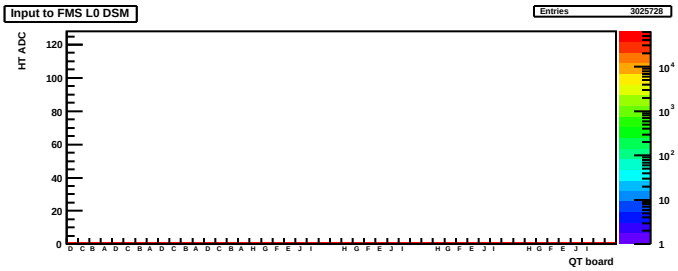

Input to FMS L0 DSM
Entries 504288
QT8(1) sum - simulated
QT board

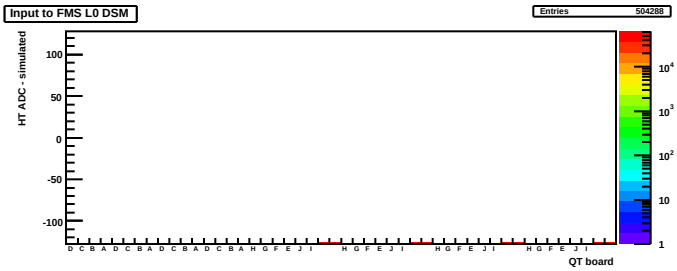

Input to FMS L0 DSM
Entries 3025728
QT8(2) sum
QT board

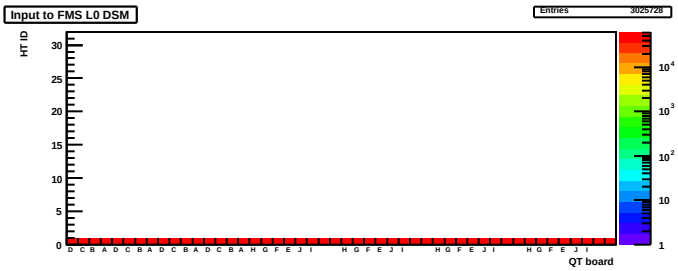

Input to FMS L0 DSM
Entries 504288
QT8(2) sum - simulated
QT board

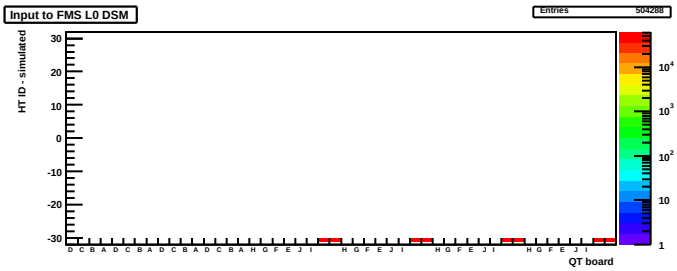

Input to FMS L0 DSM
Entries 3025728
QT8(3) sum
QT board

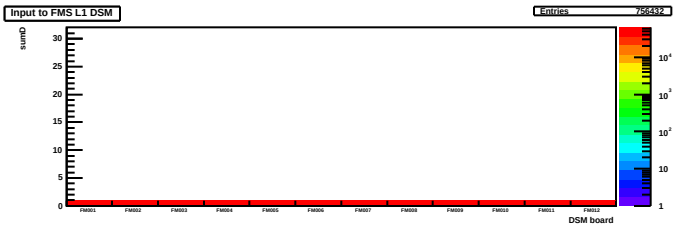

Input to FMS L0 DSM
Entries 504288
QT8(3) sum - simulated
QT board

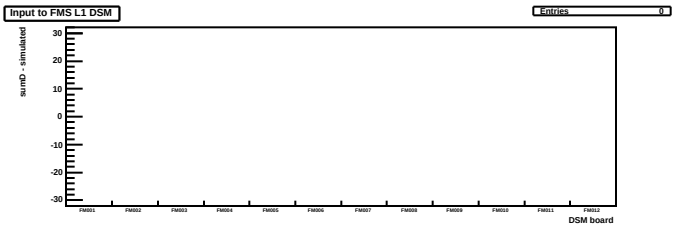

Input to FMS L0 DSM
Entries 3025728
HT ADC
QT board

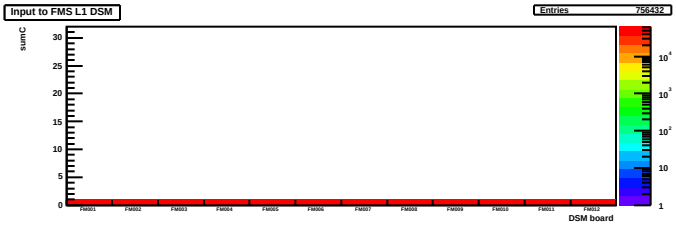

Input to FMS L0 DSM
Entries 504288
HT ADC - simulated
QT board

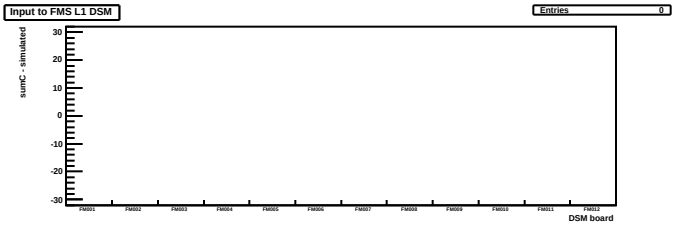

Input to FMS L0 DSM
Entries 3025728
HT ID
QT board

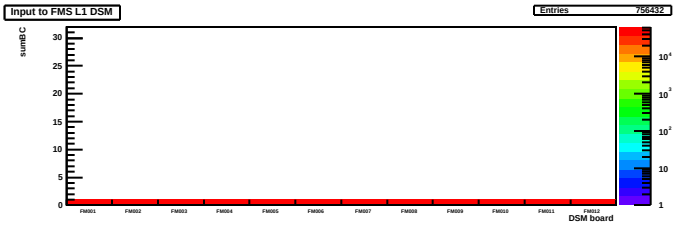

Input to FMS L0 DSM
Entries 504288
HT ID - simulated
QT board

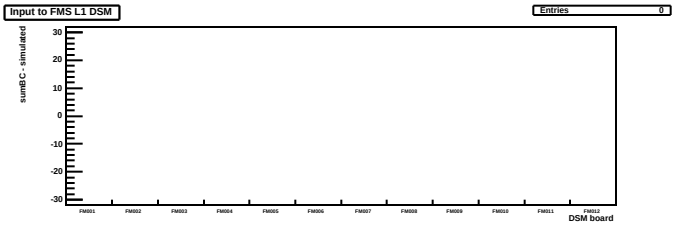

Input to FMS L1 DSM
Entries 756432
sumD
DSM board

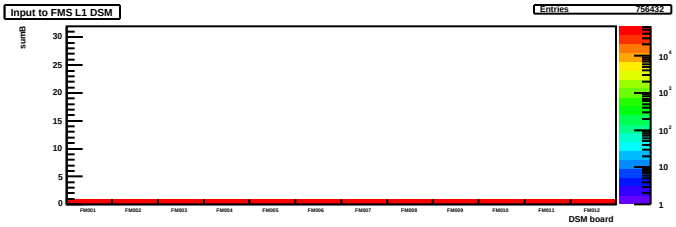

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

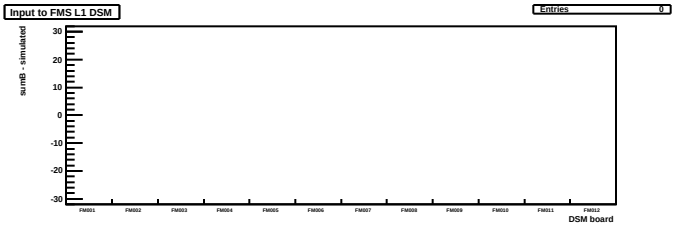

Input to FMS L1 DSM
Entries 756432
sumC
DSM board

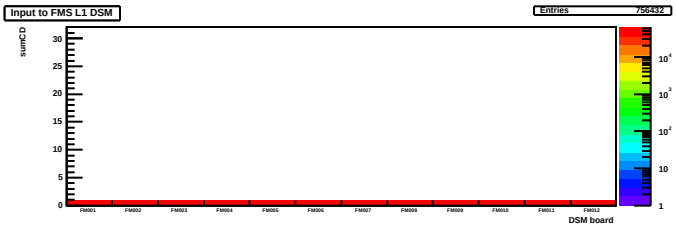

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

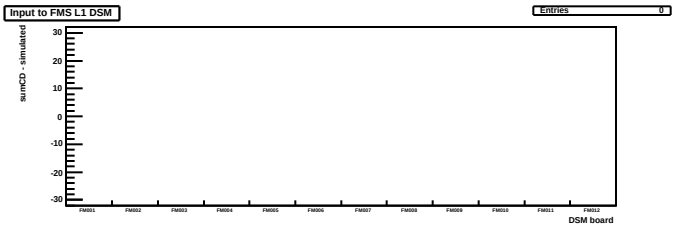

Input to FMS L1 DSM
Entries 756432
sumBC
DSM board

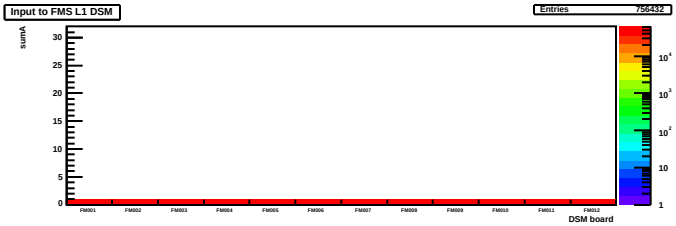

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

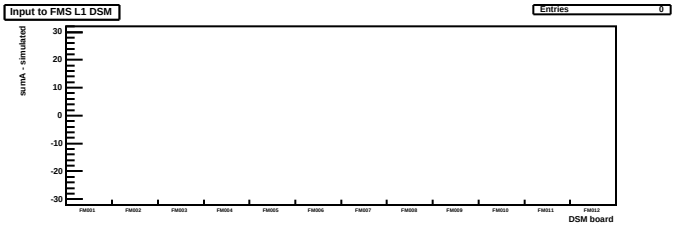

Input to FMS L1 DSM
Entries 756432
sumB
DSM board

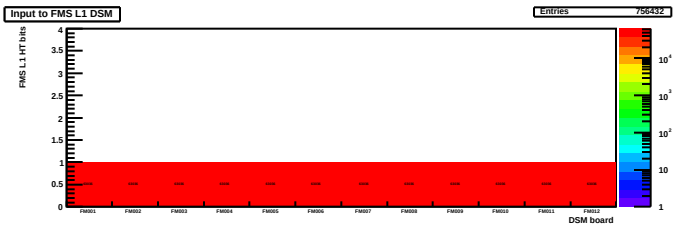

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

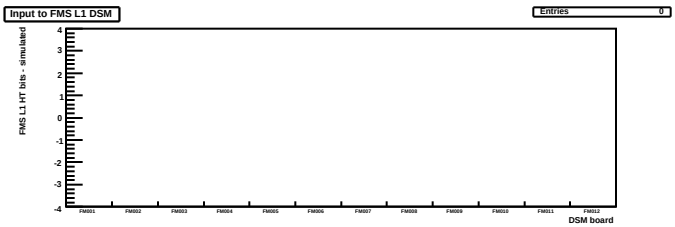

Input to FMS L1 DSM
Entries 756432
sumCD
DSM board

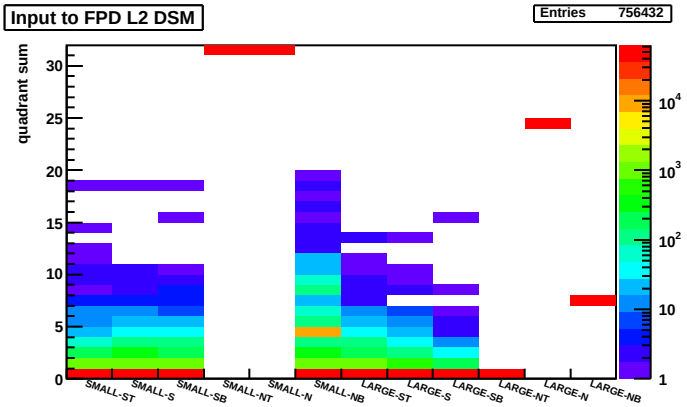

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

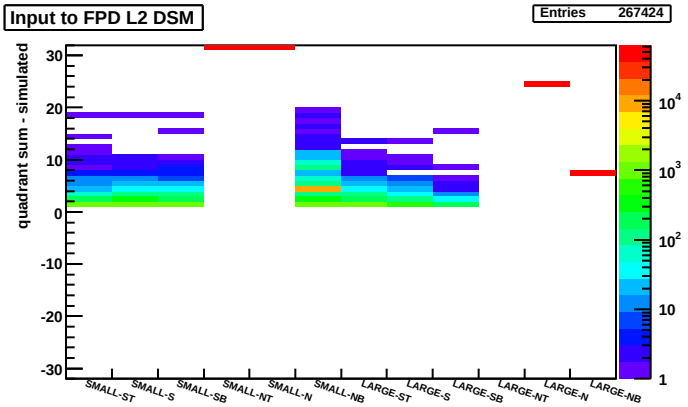

Input to FMS L1 DSM
Entries 756432
sumA
DSM board

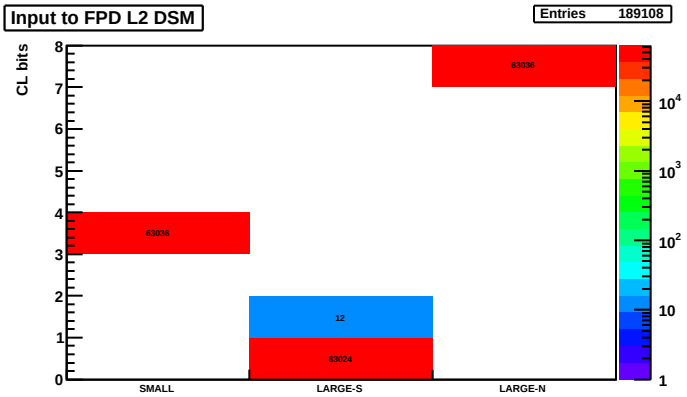

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

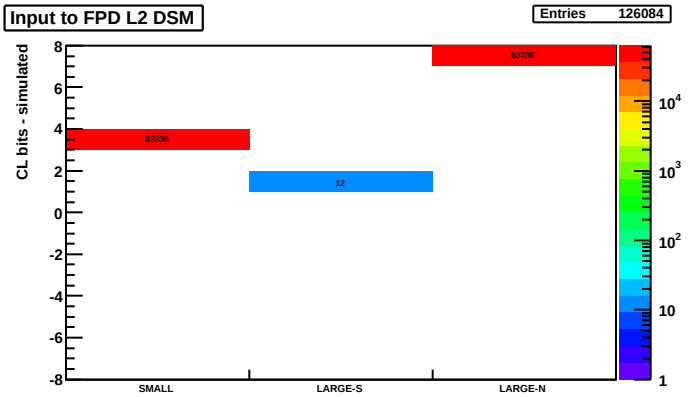

Input to FMS L1 DSM
Entries 756432
FMS L1 HT bits
DSM board

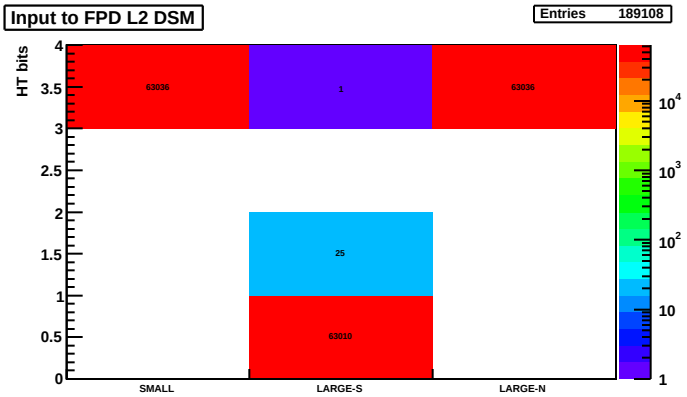

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

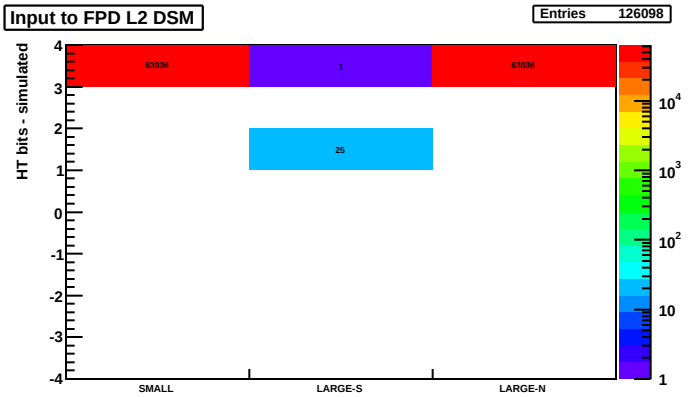

Input to FPD L2 DSM
Entries 756432
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

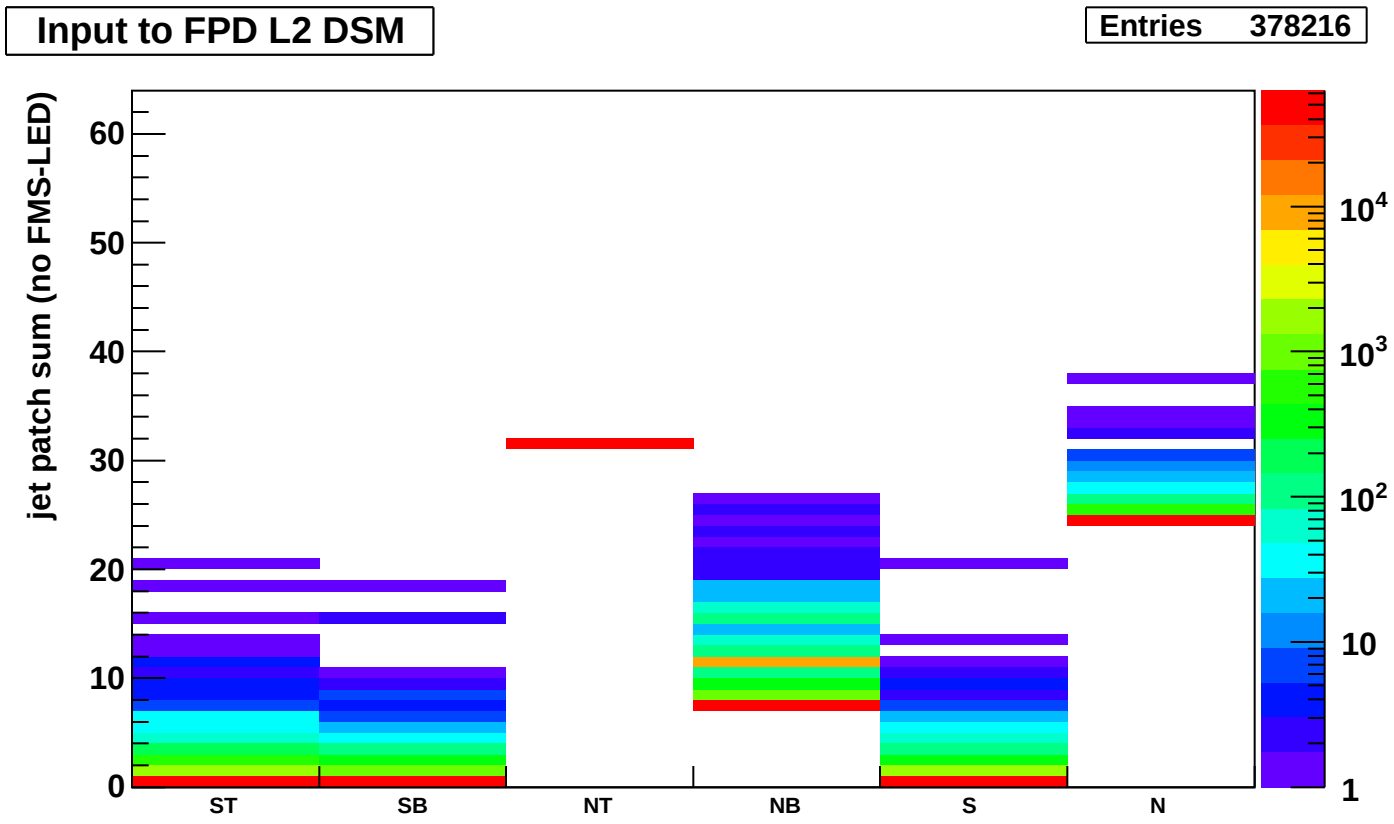

Input to FPD L2 DSM
Entries 267424
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

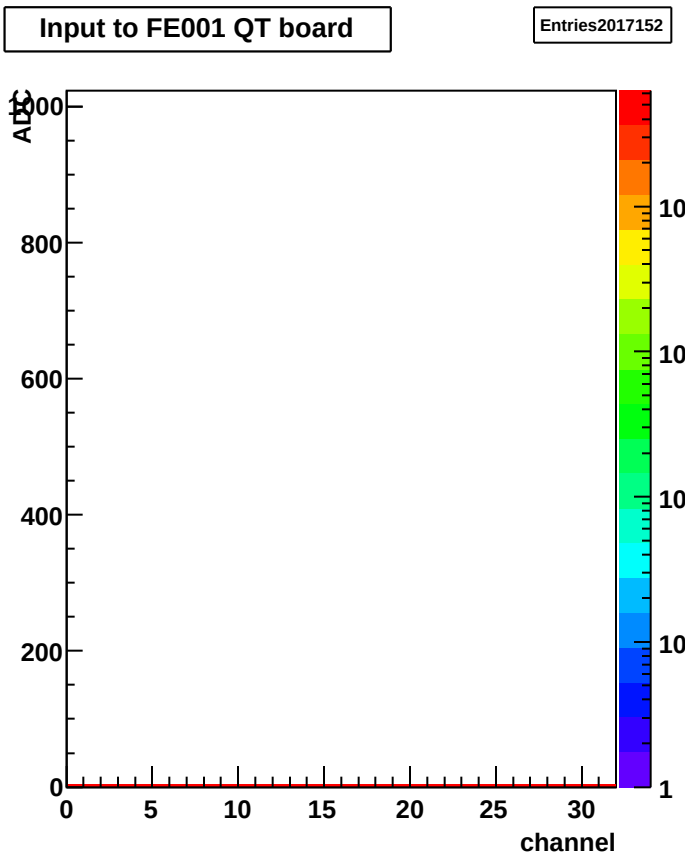

Input to FPD L2 DSM
Entries 189108
CL bits
63036
12
63024
SMALL
LARGE-S
LARGE-N

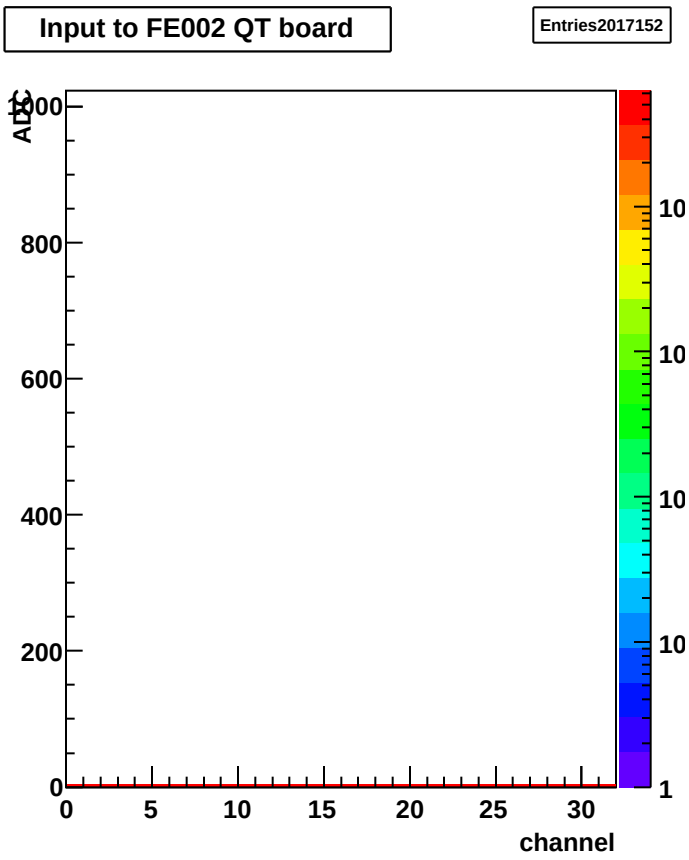

Input to FPD L2 DSM
Entries 126084
CL bits - simulated
63036
12
63036
SMALL
LARGE-S
LARGE-N

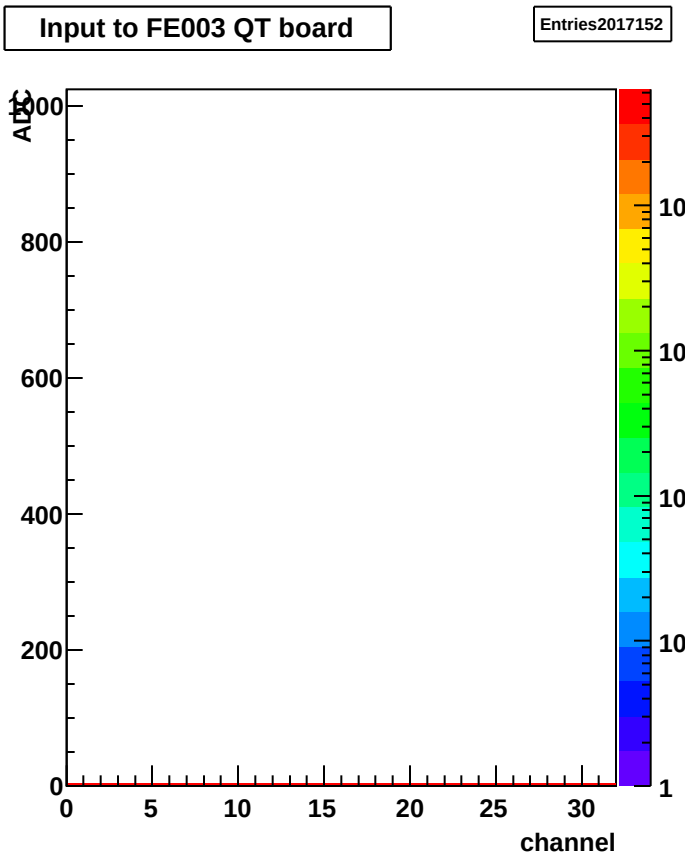

Input to FPD L2 DSM
Entries 189108
HT bits
63036
1
63036
25
63010
SMALL
LARGE-S
LARGE-N

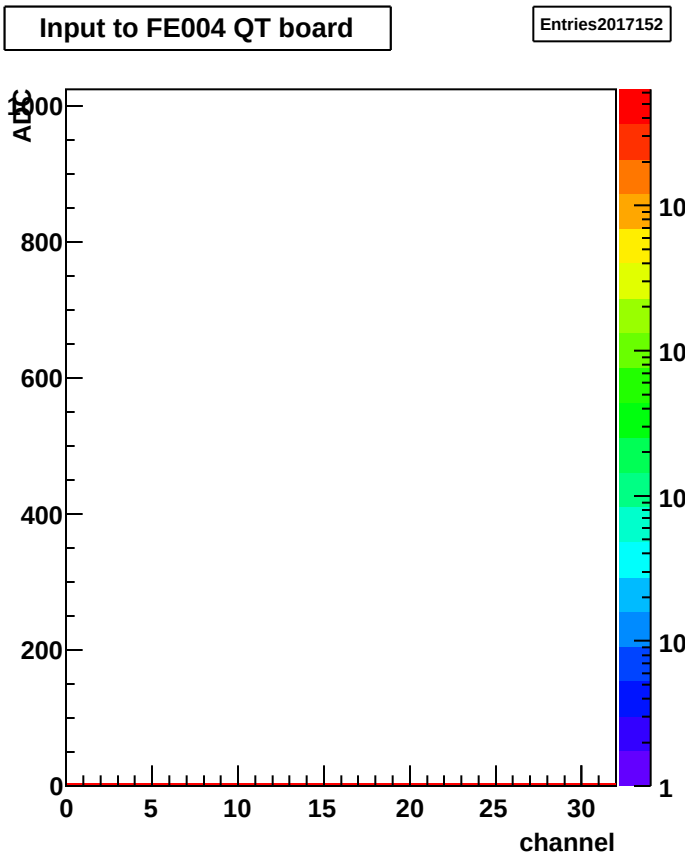

Input to FPD L2 DSM
Entries 126098
HT bits - simulated
63036
1
63036
25
SMALL
LARGE-S
LARGE-N

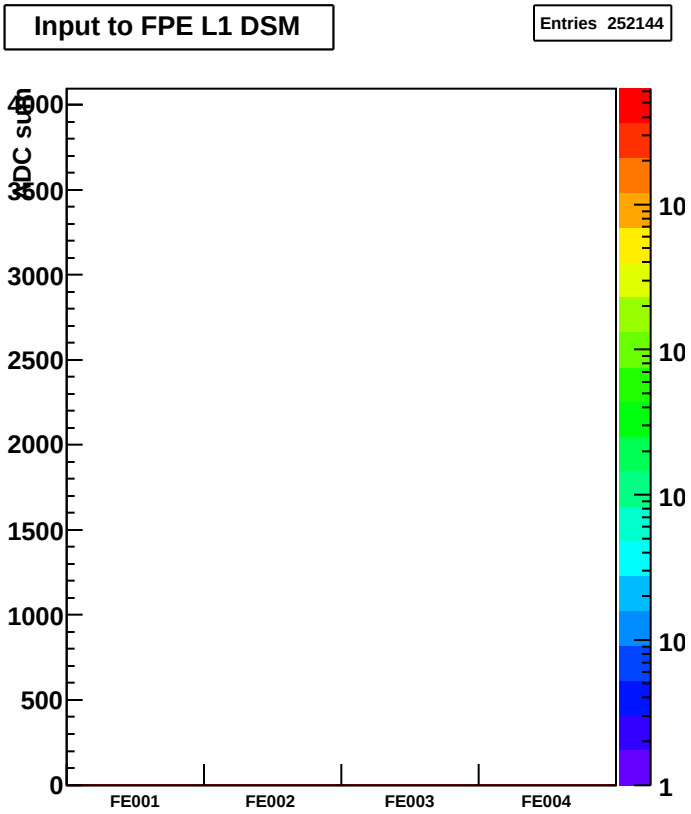

Input to FPD L2 DSM
Entries 378216
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

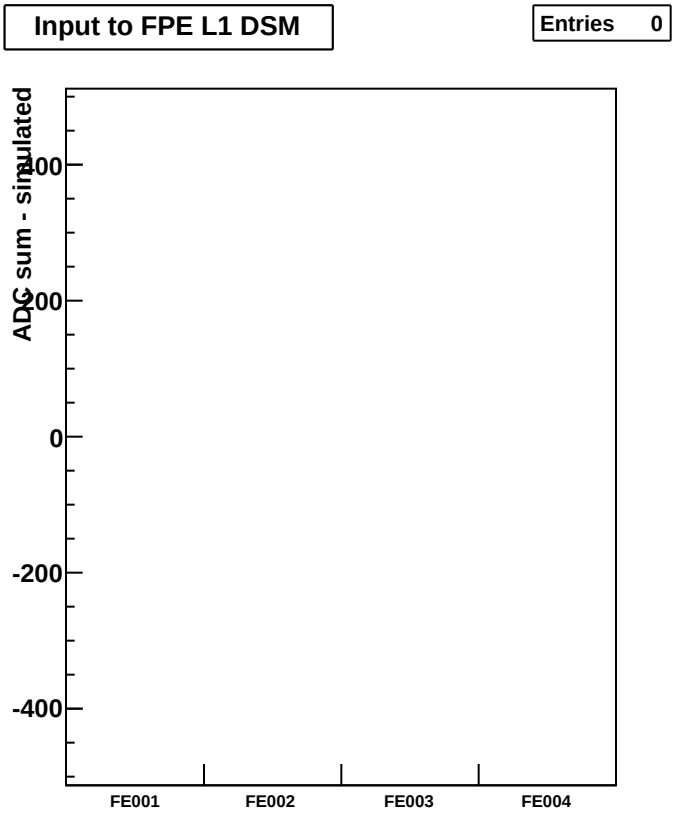

Input to FE001 QT board
Entries2017152
ADC
channel

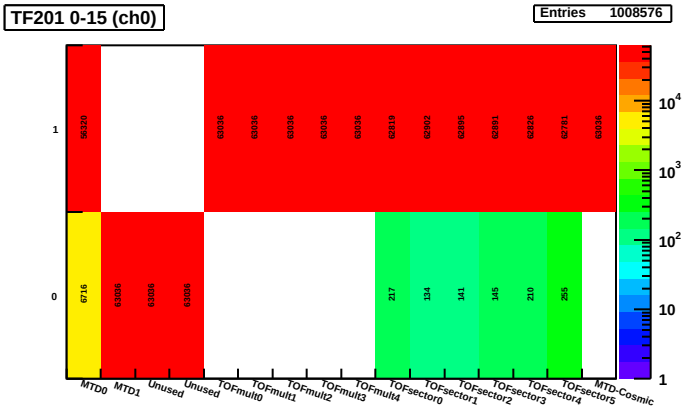

Input to FE002 QT board
Entries2017152
ADC
channel

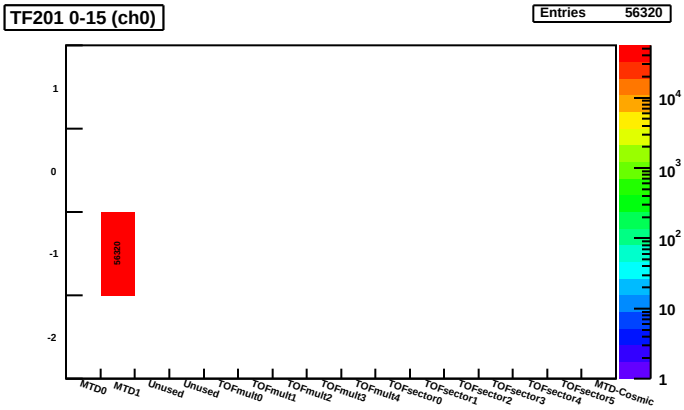

Input to FE003 QT board
Entries2017152
ADC
channel

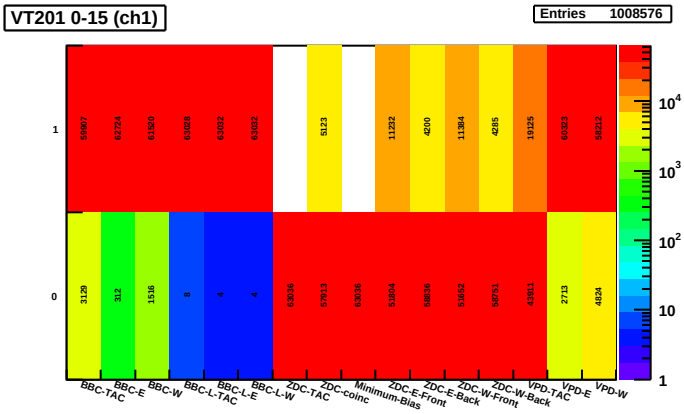

Input to FE004 QT board
Entries2017152
ADC
channel

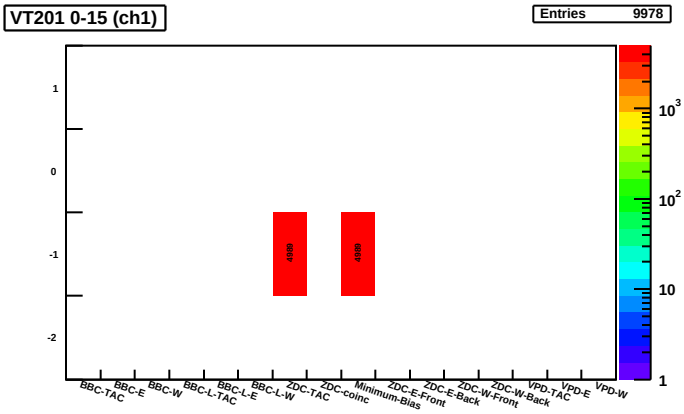

Input to FPE L1 DSM
Entries 252144
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

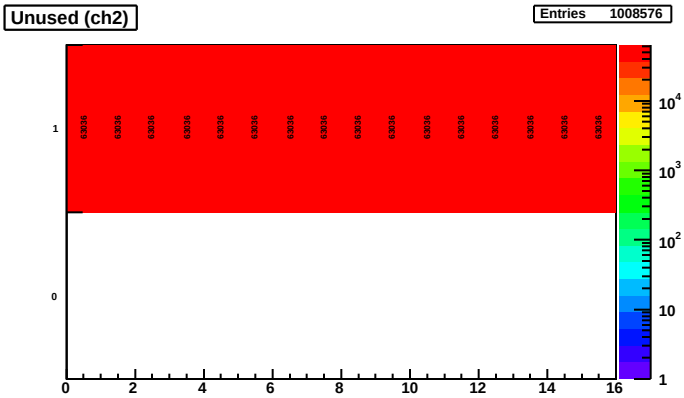

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

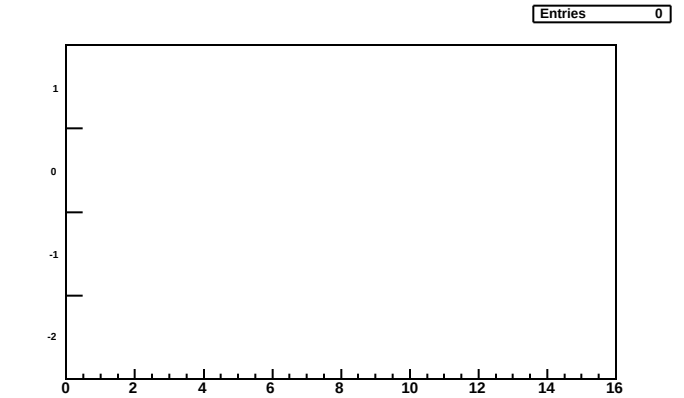

TF201 0-15 (ch0)
Entries 1008576
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 56320
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 1008576
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 9978
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 1008576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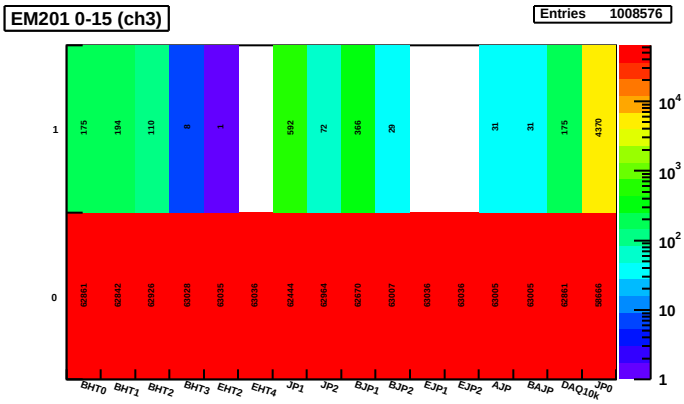
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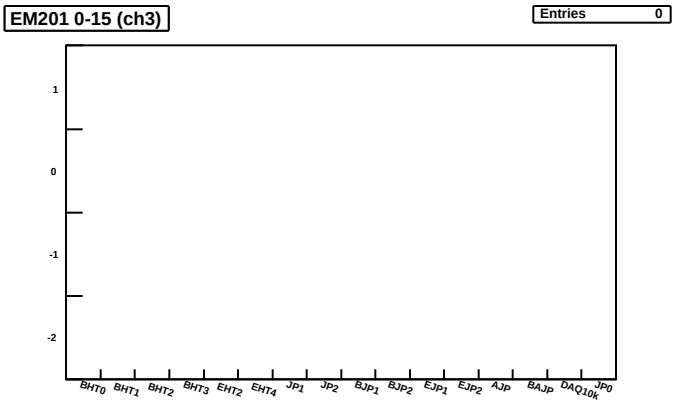
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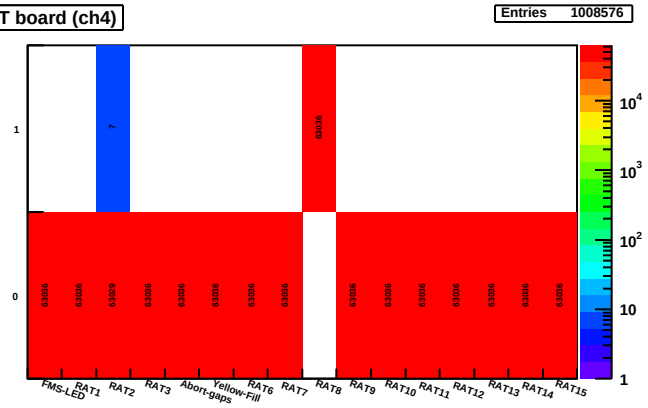
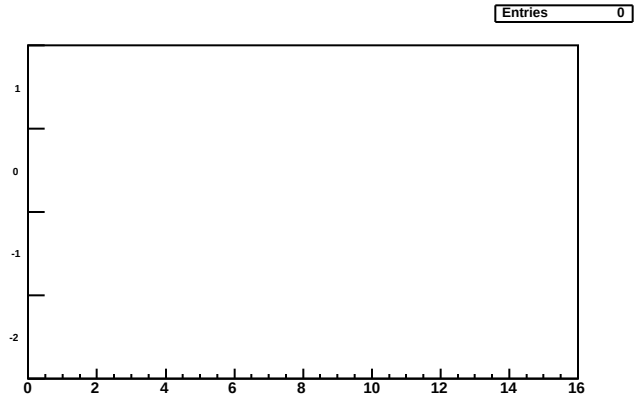
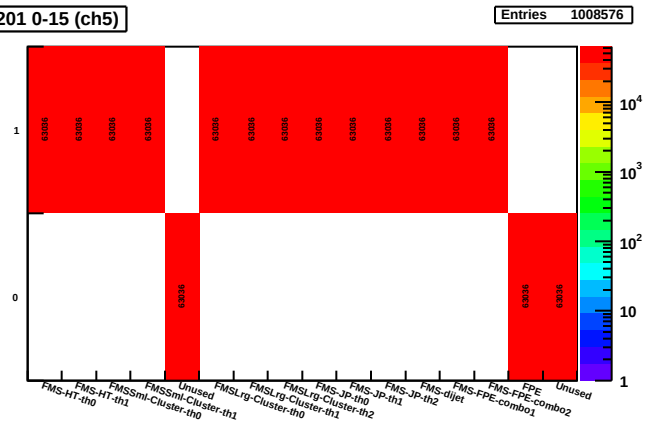
RAT board (ch4)





FP201 0-15 (ch5)



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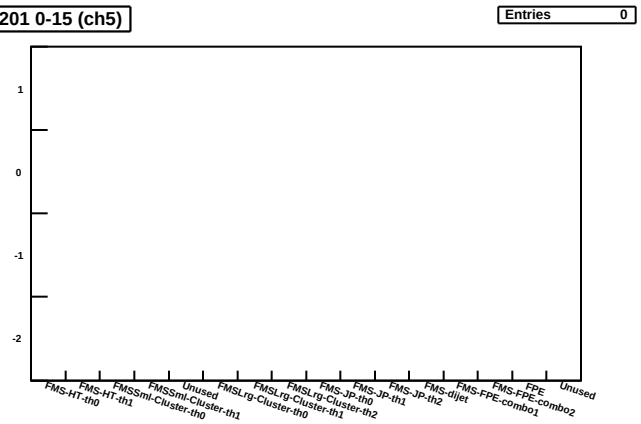
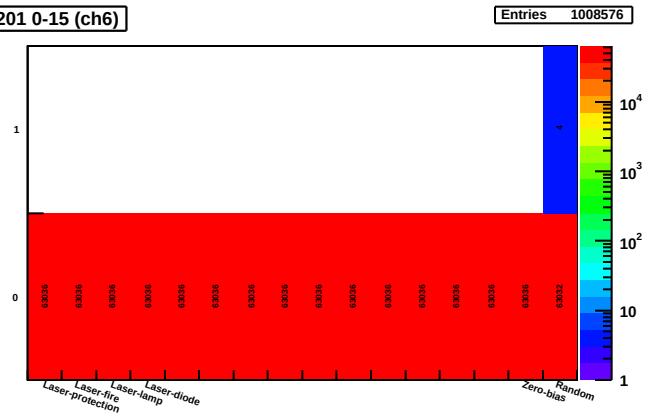
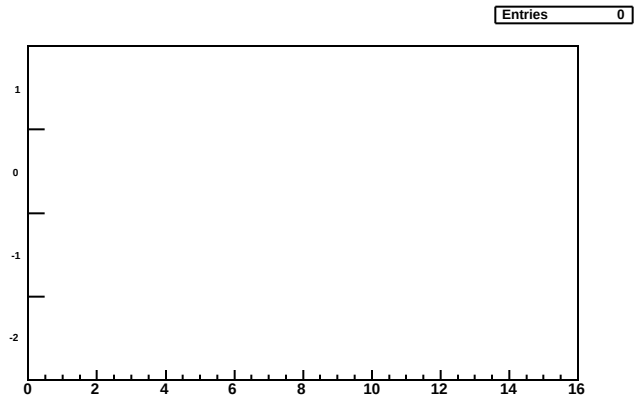
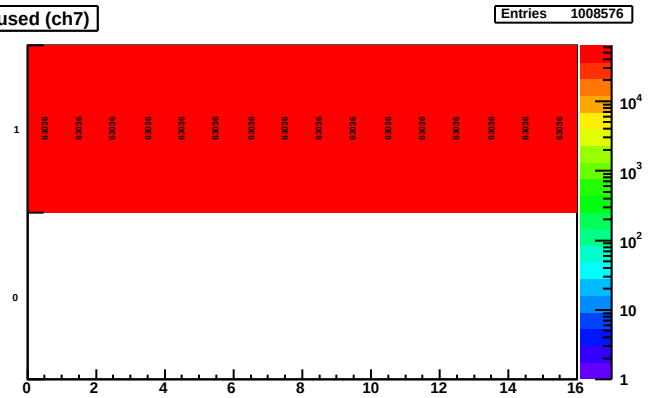
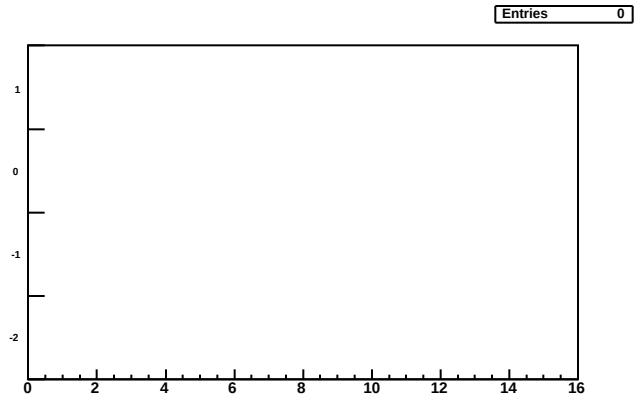


ST201 0-15 (ch6)





Unused (ch7)