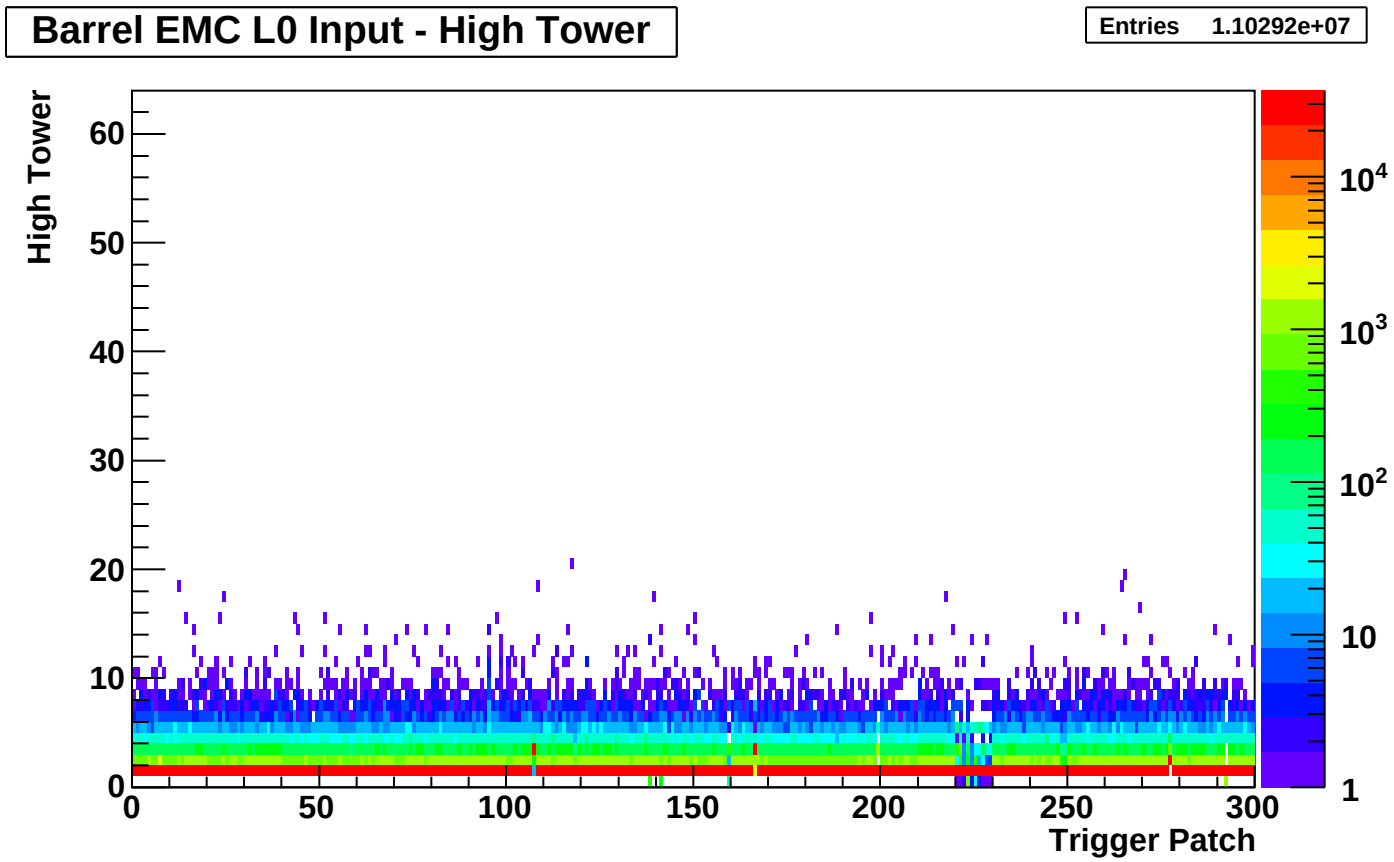
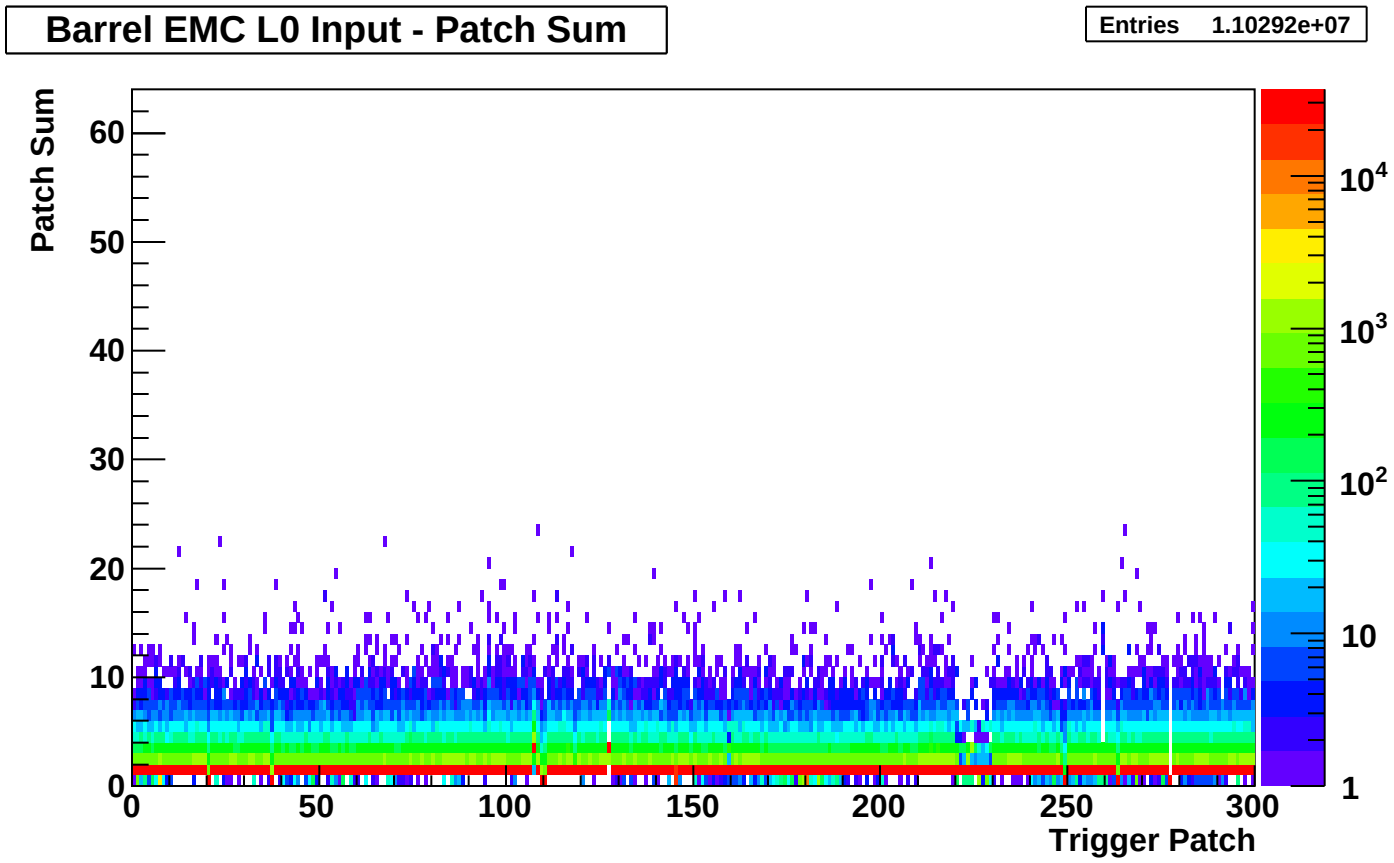
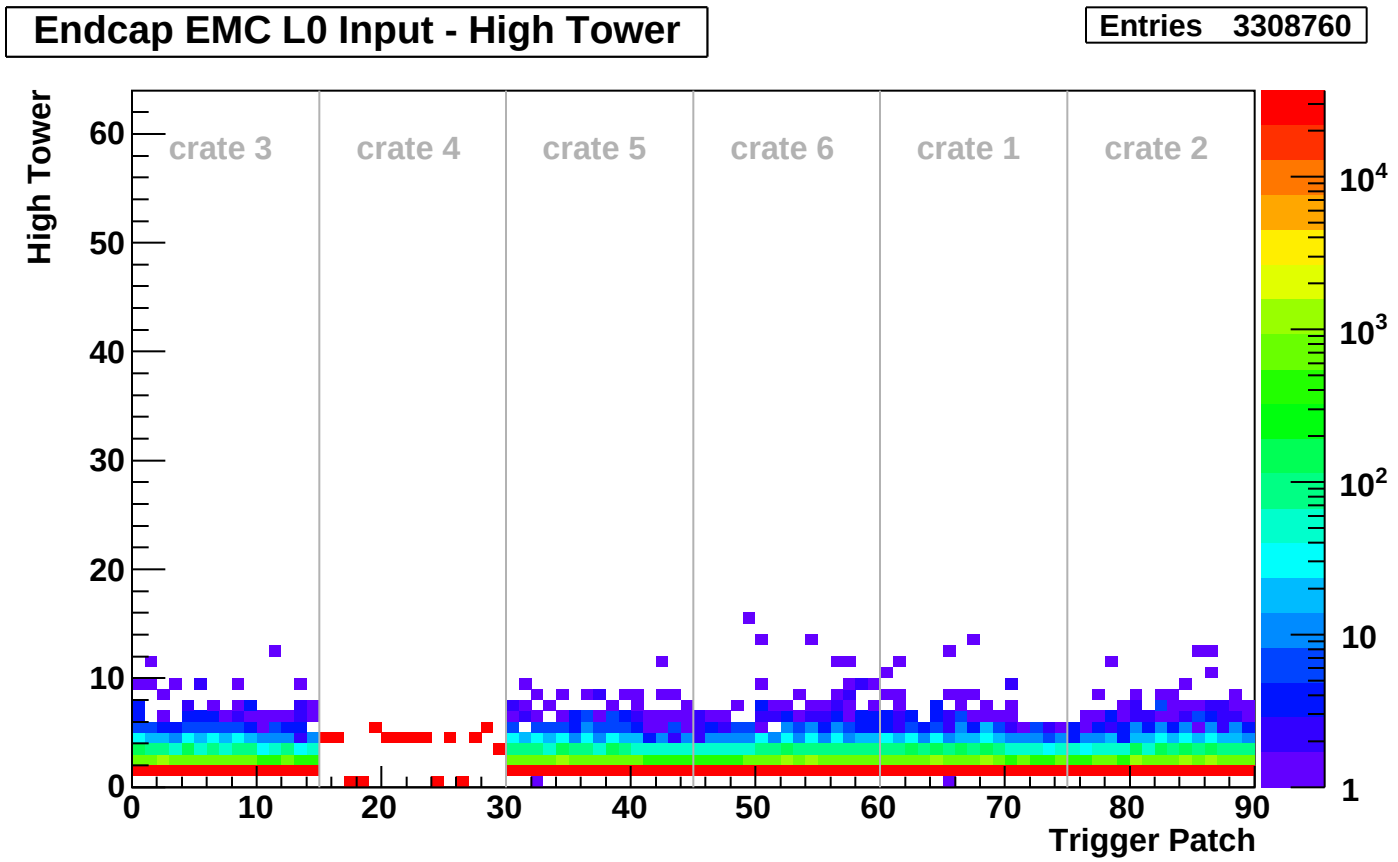
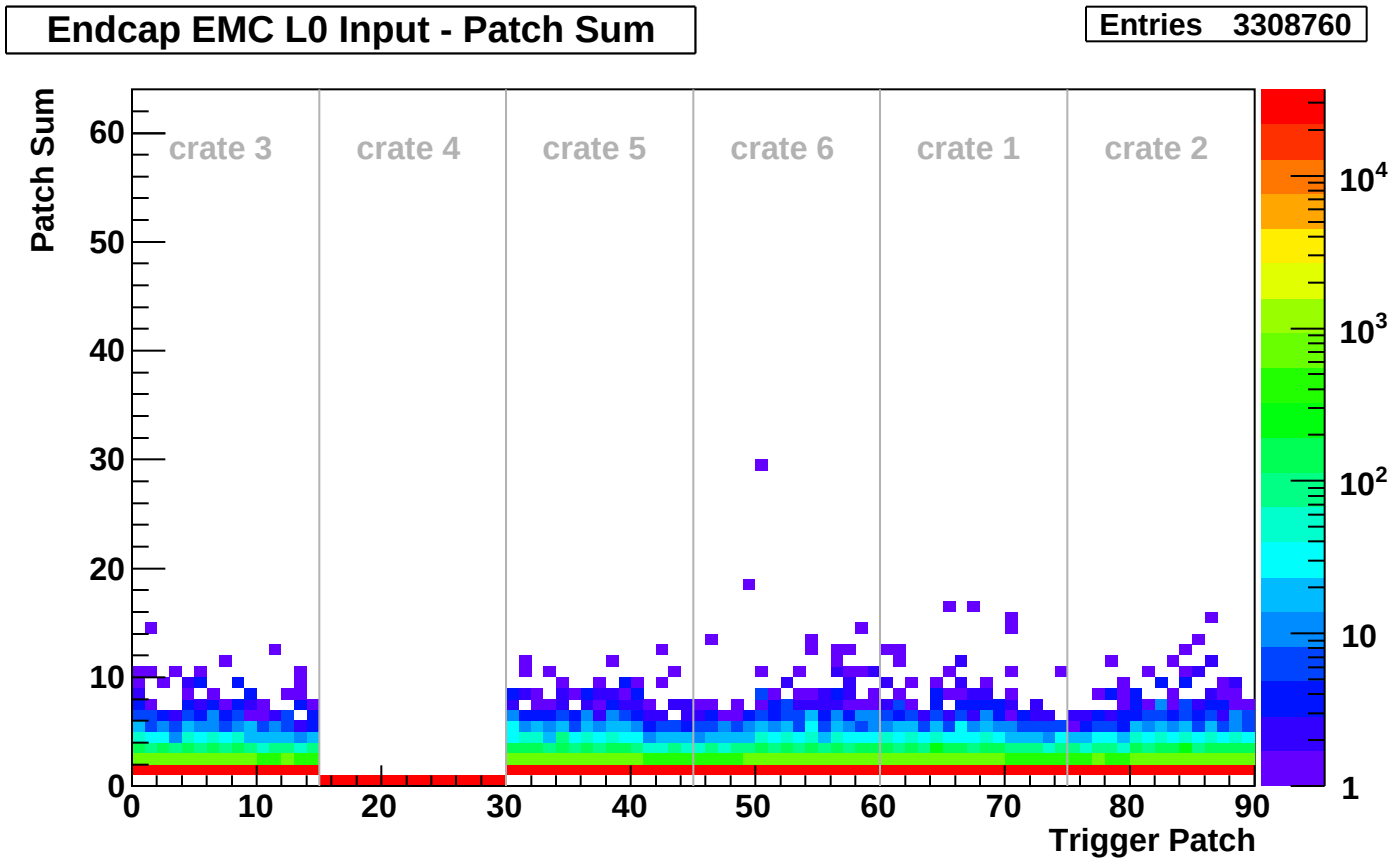
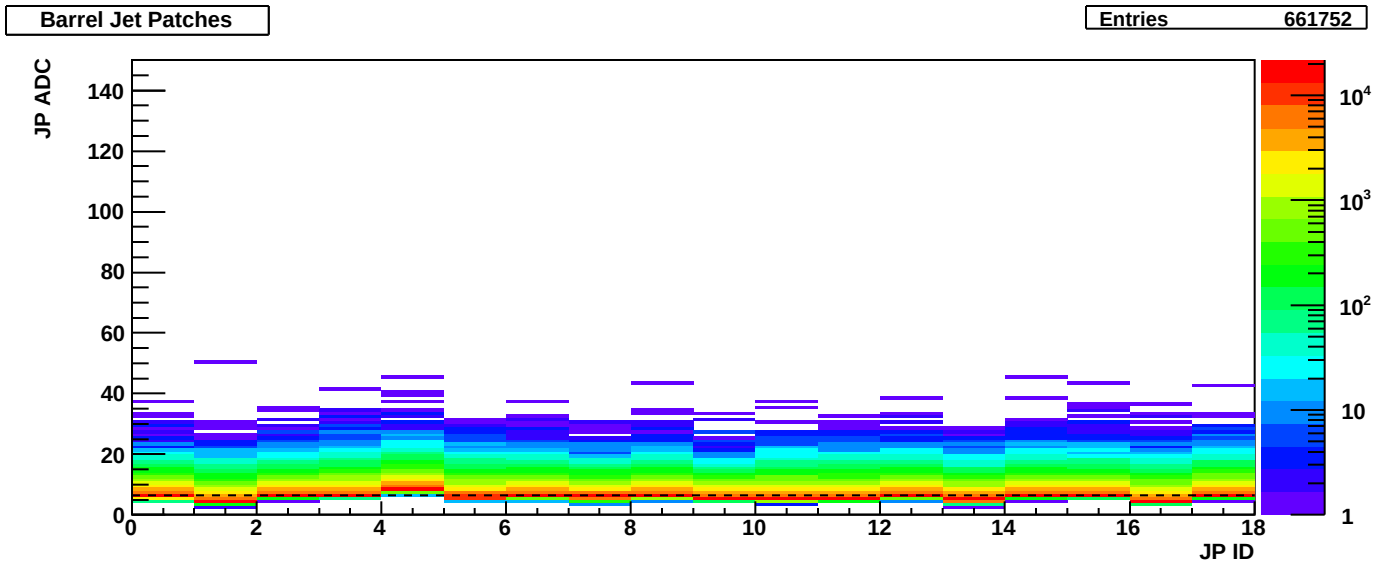
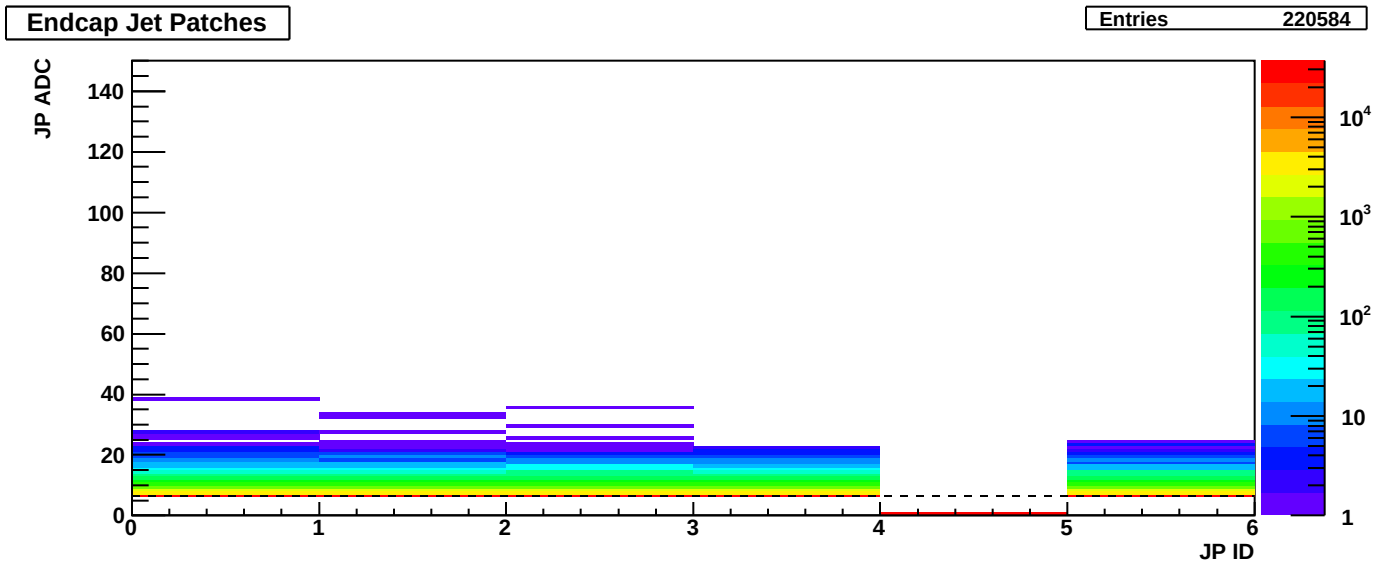

Barrel EMC L0 Input - High Tower
Entries 1.10292e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

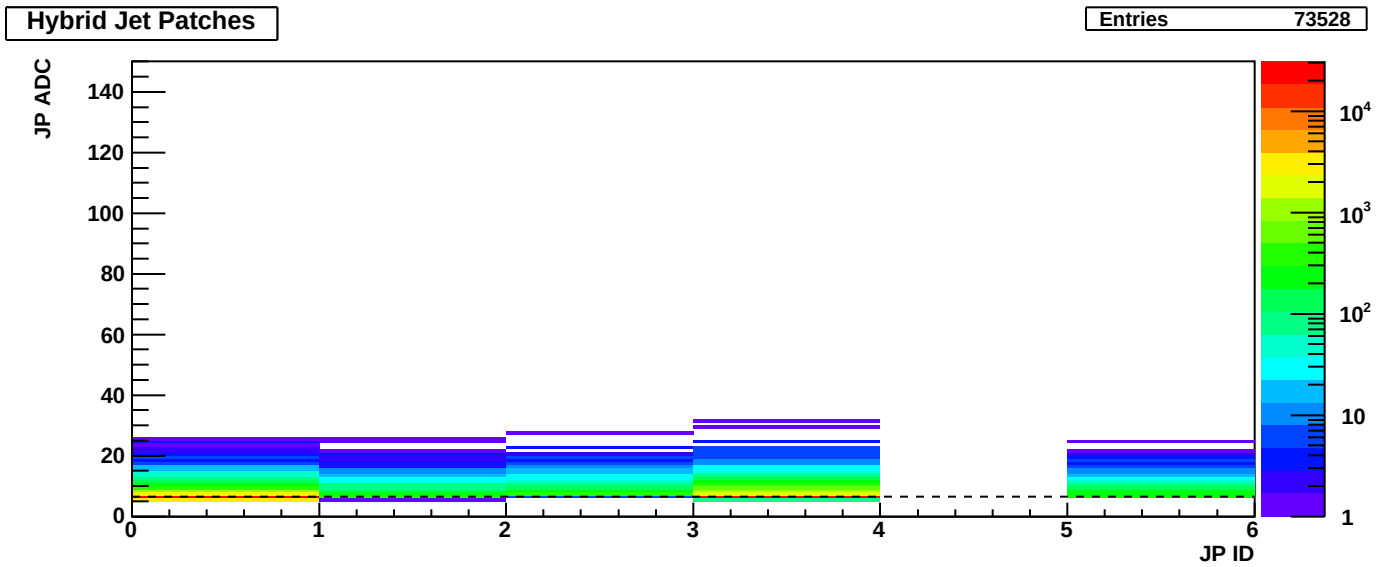

Barrel EMC L0 Input - Patch Sum
Entries 1.10292e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

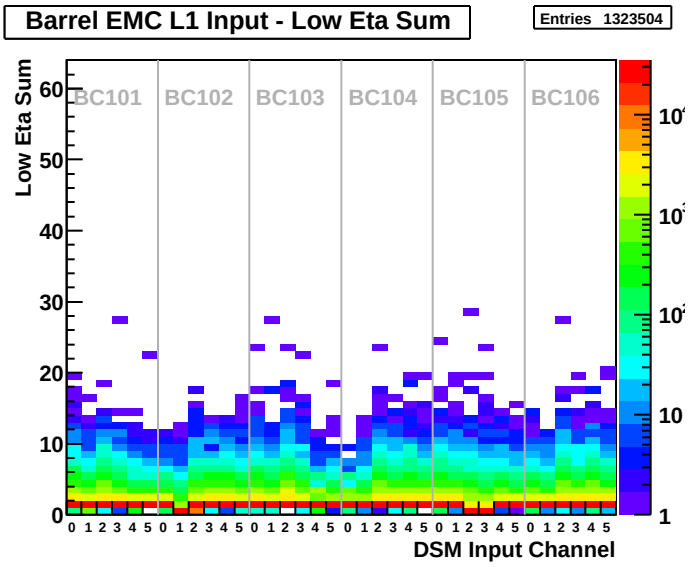

Endcap EMC L0 Input - High Tower
Entries 3308760
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

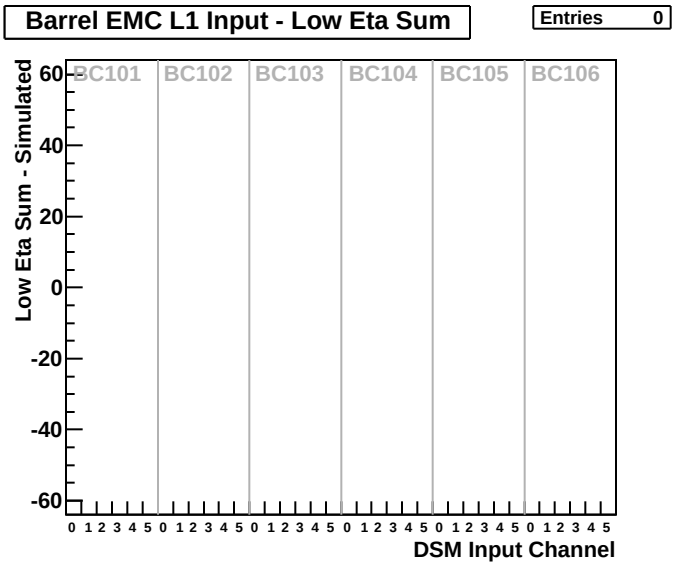

Endcap EMC L0 Input - Patch Sum
Entries 3308760
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

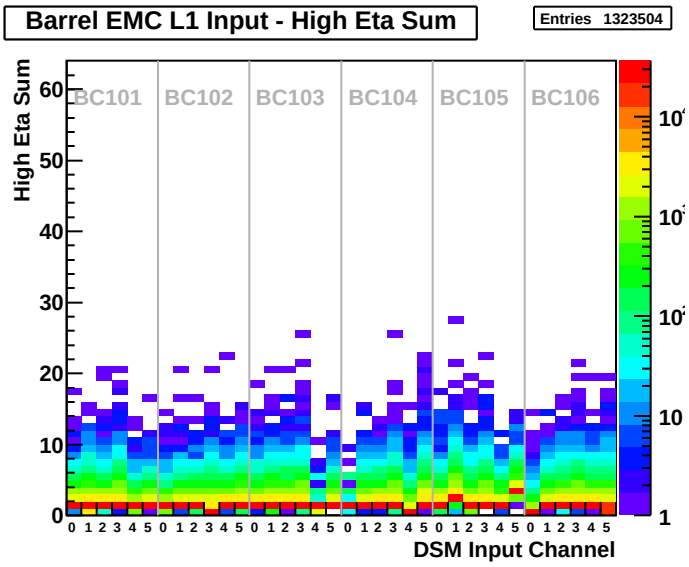

Barrel Jet Patches
Entries 661752
JP ADC
JP ID

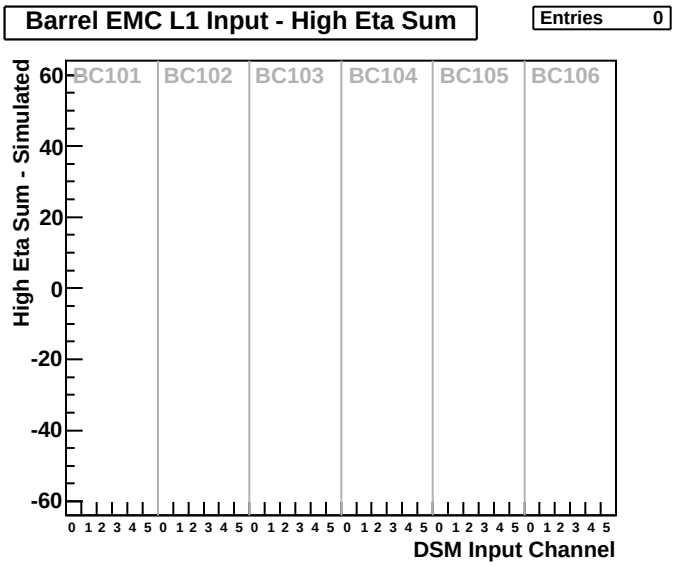

Endcap Jet Patches
Entries 220584
JP ADC
JP ID

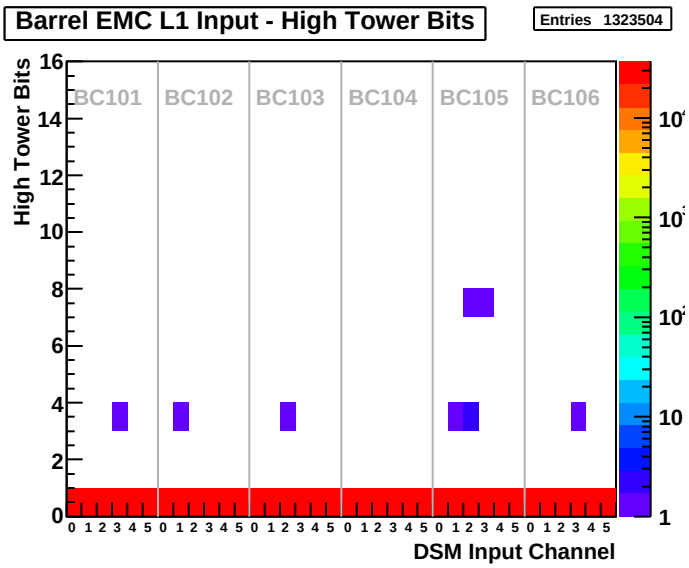

Hybrid Jet Patches
Entries 73528
JP ADC
JP ID

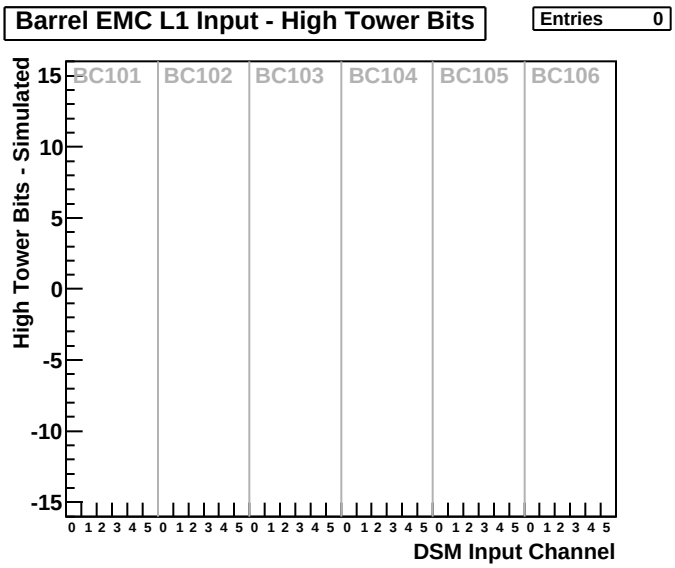

Barrel EMC L1 Input - Low Eta Sum
Entries 1323504
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

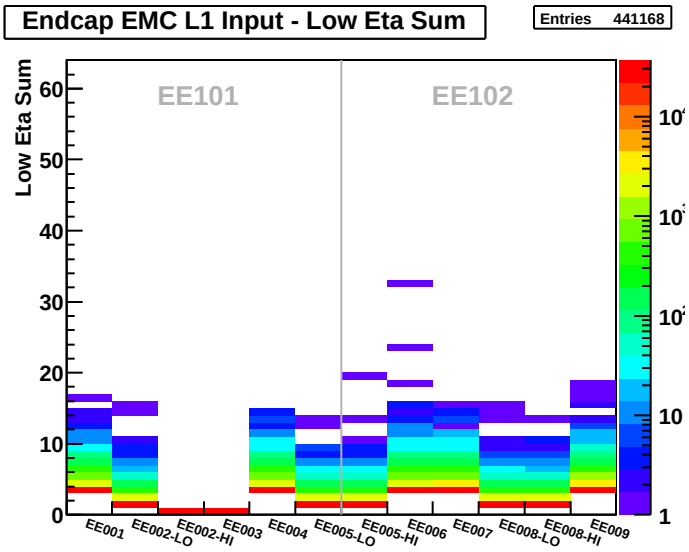

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

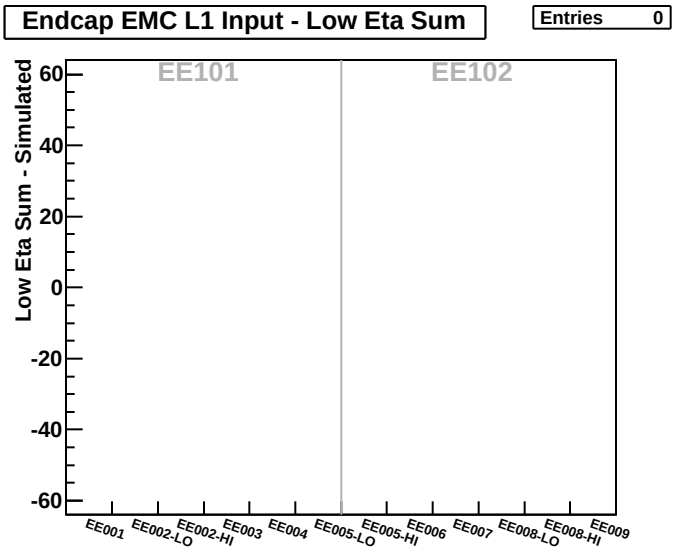

Barrel EMC L1 Input - High Eta Sum
Entries 1323504
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

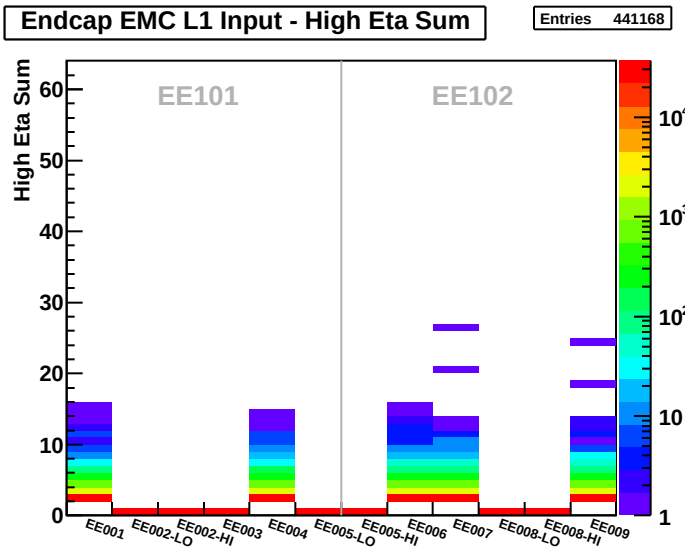

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

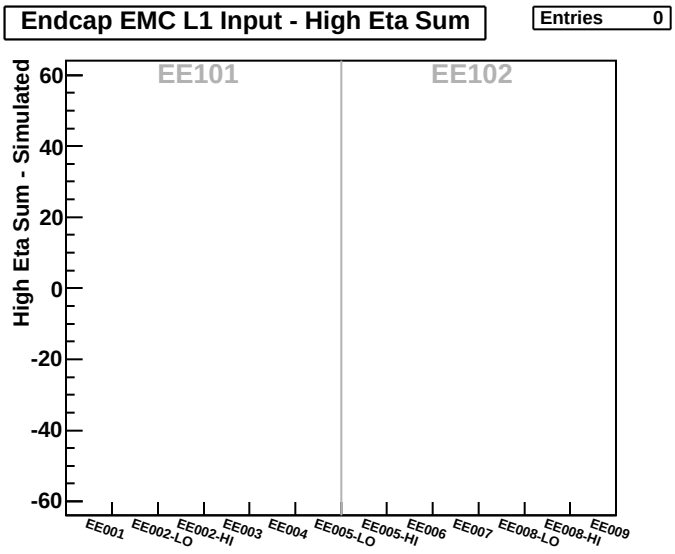

Barrel EMC L1 Input - High Tower Bits
Entries 1323504
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

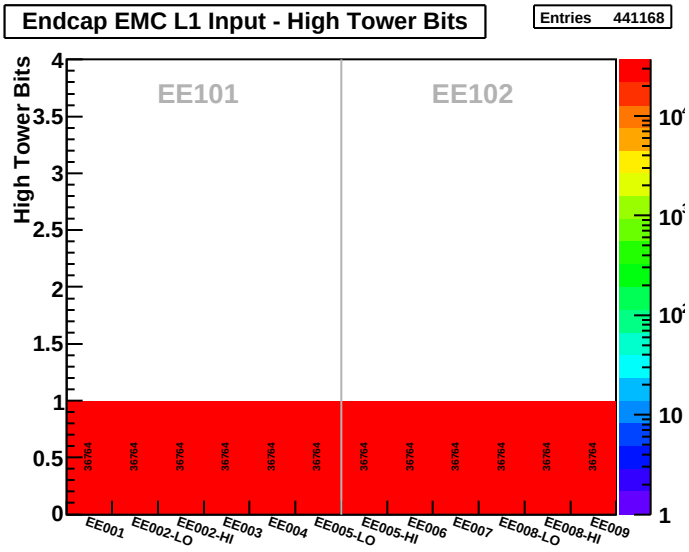

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

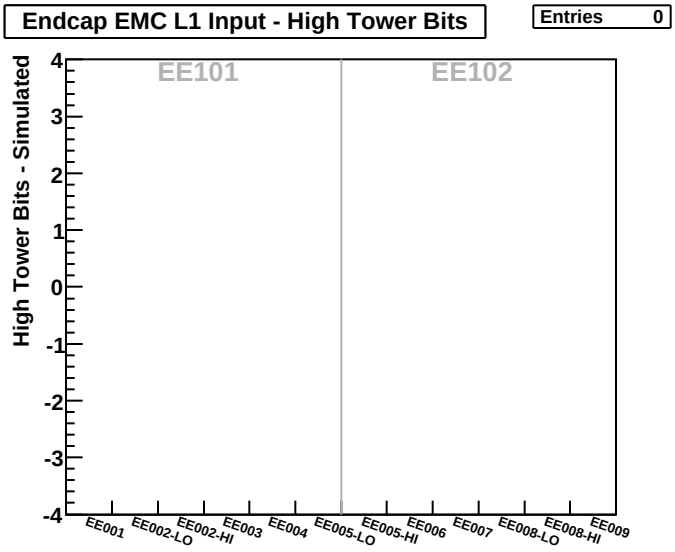

Endcap EMC L1 Input - Low Eta Sum
Entries 441168
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

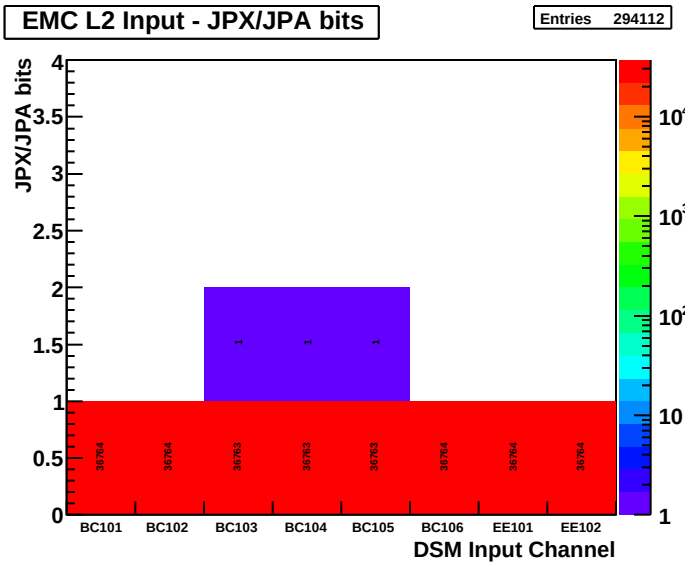

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

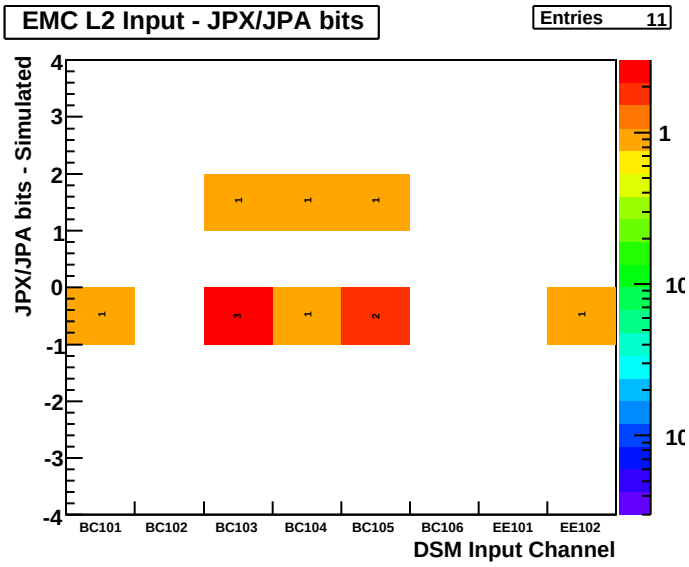

Endcap EMC L1 Input - High Eta Sum
Entries 441168
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

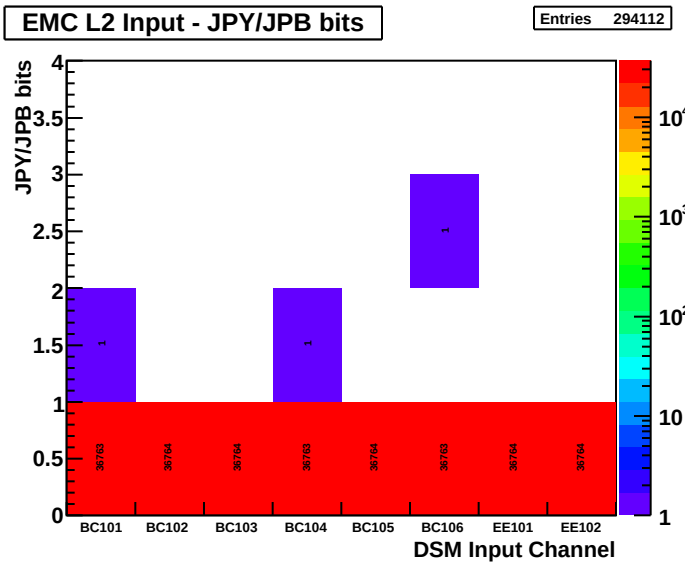

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

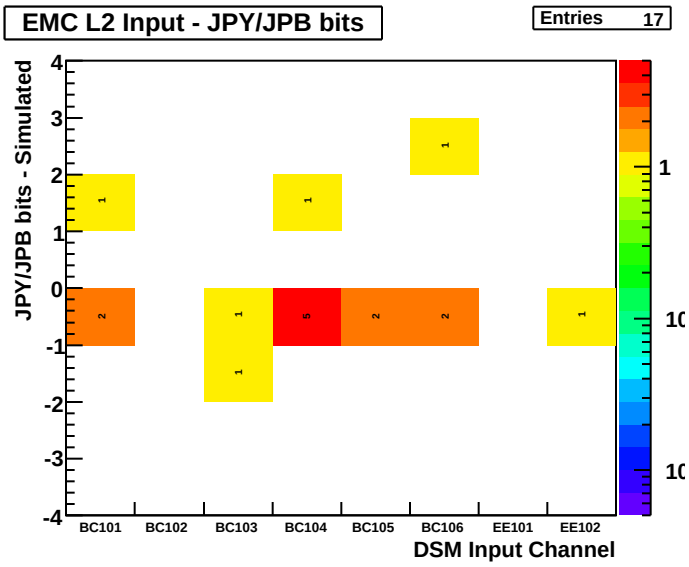

Endcap EMC L1 Input - High Tower Bits
Entries 441168
High Tower Bits
EE101
EE102
36764
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

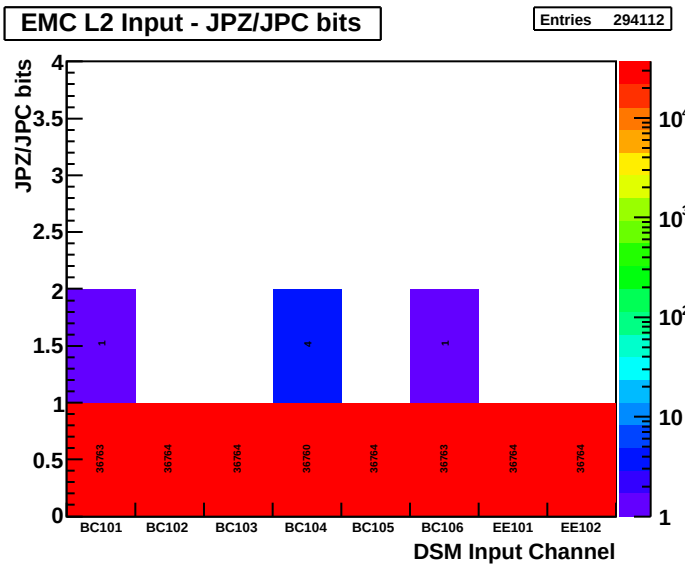

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

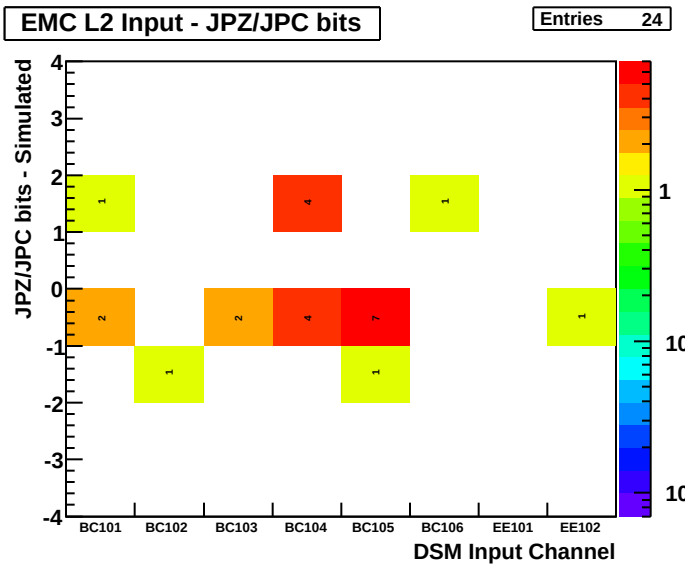

EMC L2 Input - JPX/JPA bits
Entries 294112
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

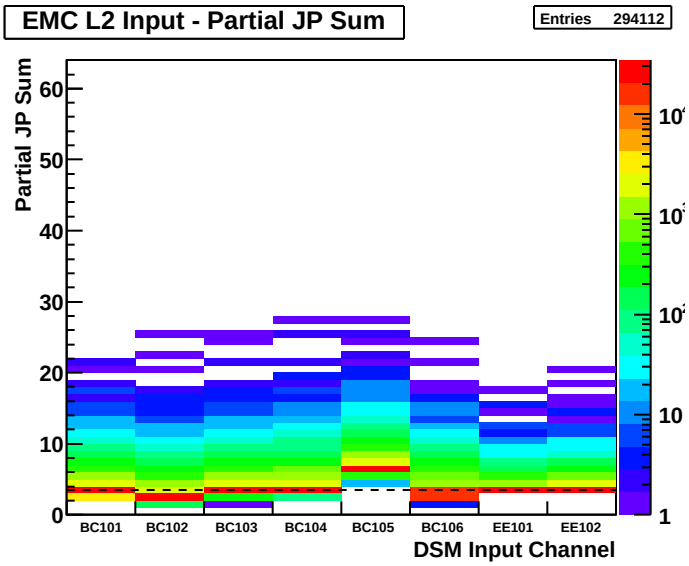

EMC L2 Input - JPX/JPA bits
Entries 11
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

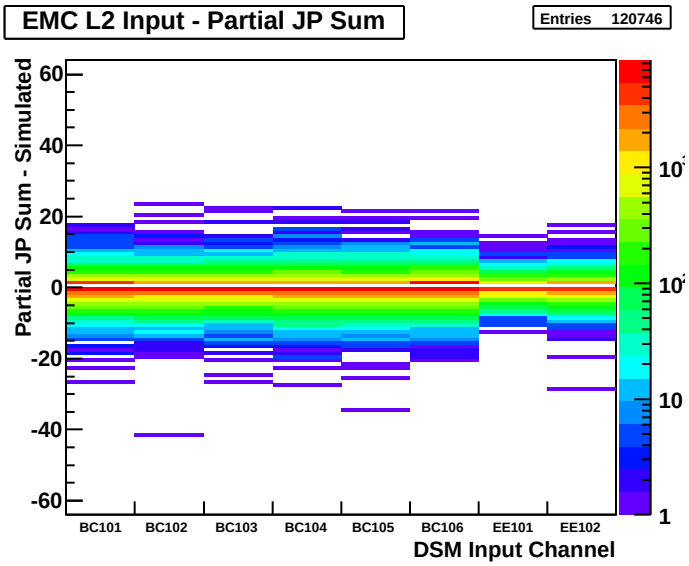

EMC L2 Input - JPY/JPB bits
Entries 294112
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

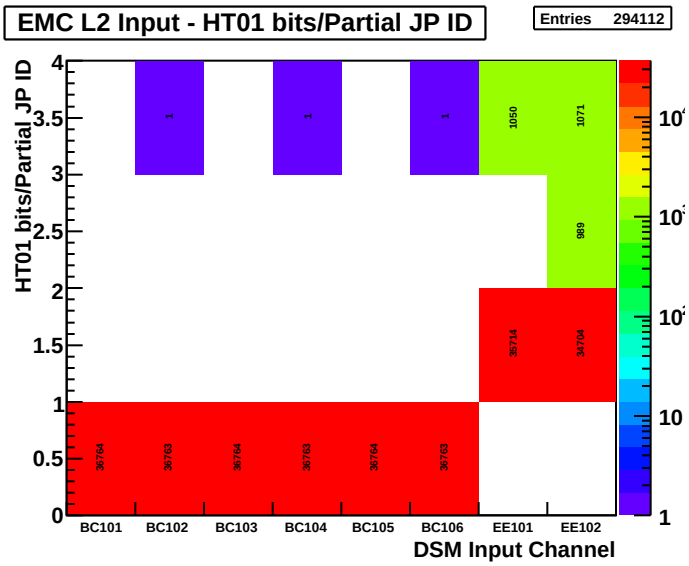

EMC L2 Input - JPY/JPB bits
Entries 17
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

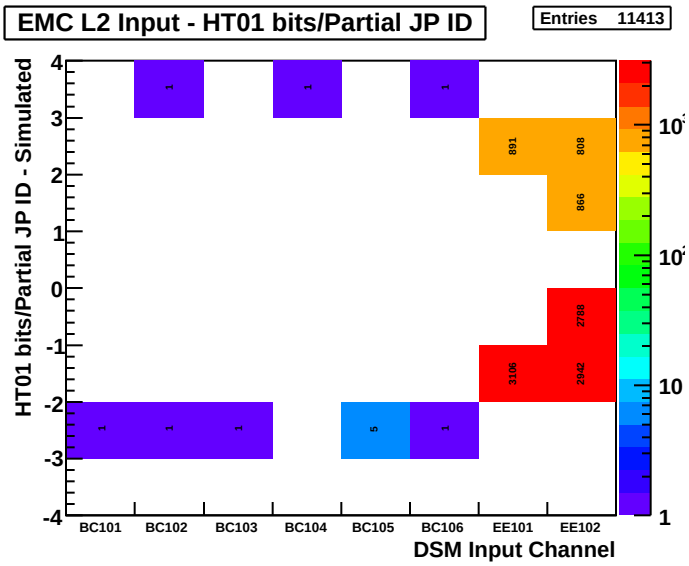

EMC L2 Input - JPZ/JPC bits
Entries 294112
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

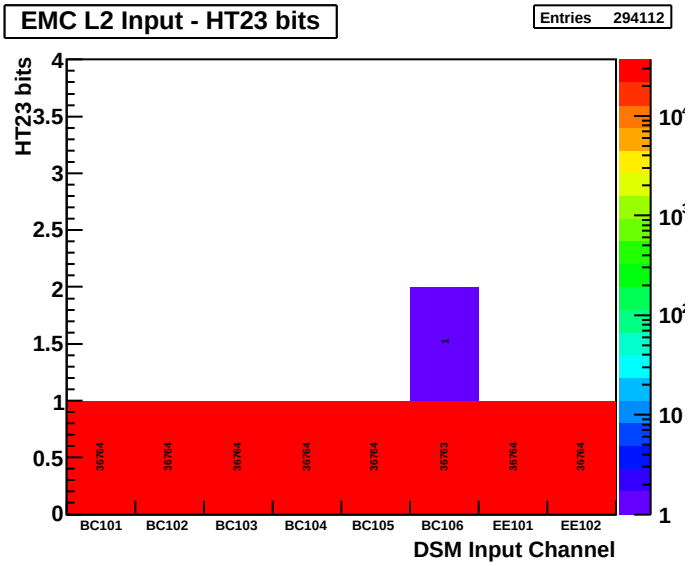

EMC L2 Input - JPZ/JPC bits
Entries 24
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

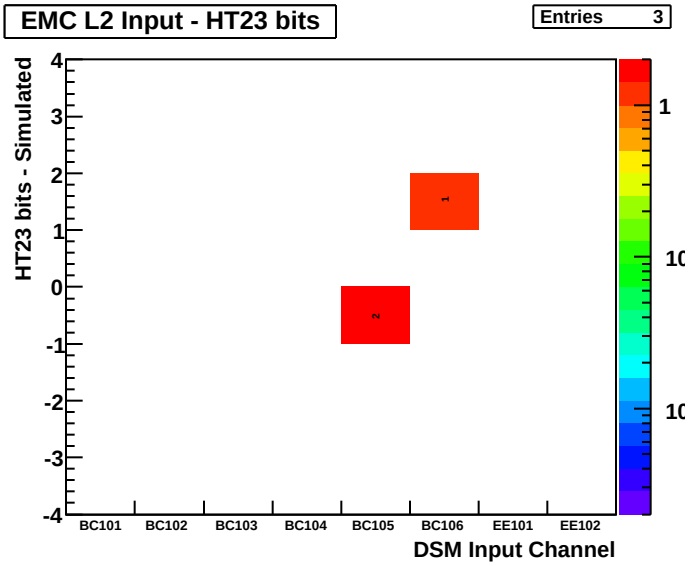

EMC L2 Input - Partial JP Sum
Entries 294112
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

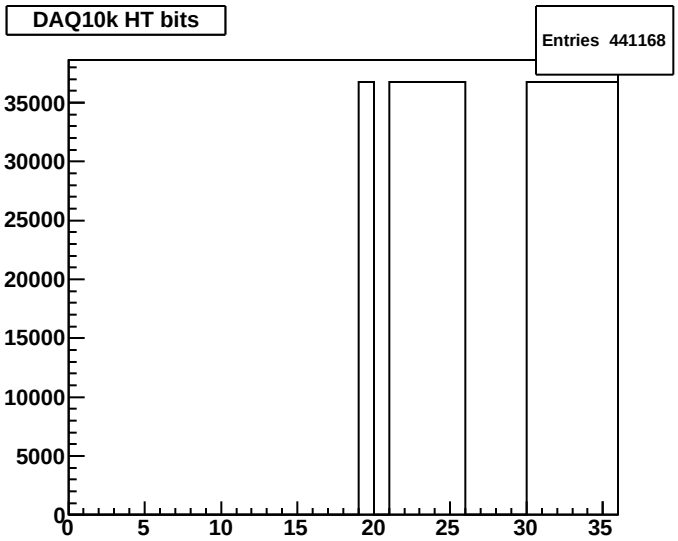

EMC L2 Input - Partial JP Sum
Entries 120746
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

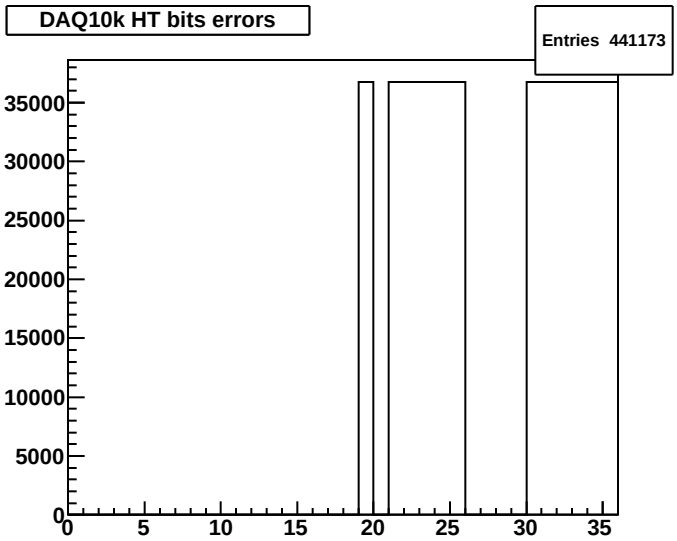

EMC L2 Input - HT01 bits/Partial JP ID
Entries 294112
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

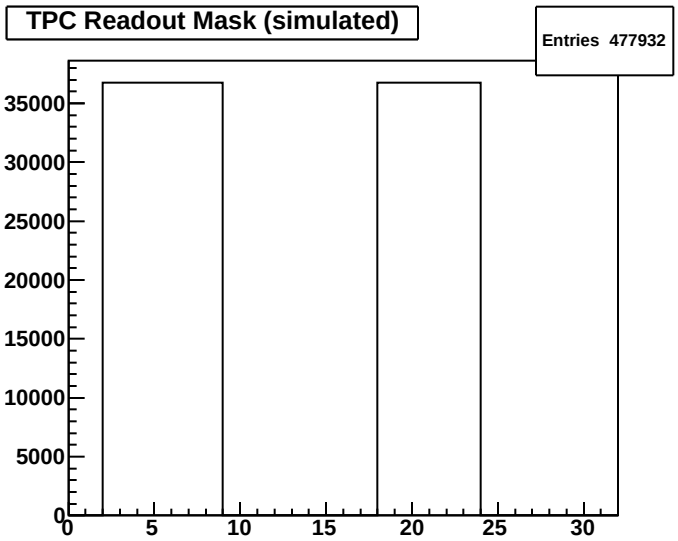

EMC L2 Input - HT01 bits/Partial JP ID
Entries 11413
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

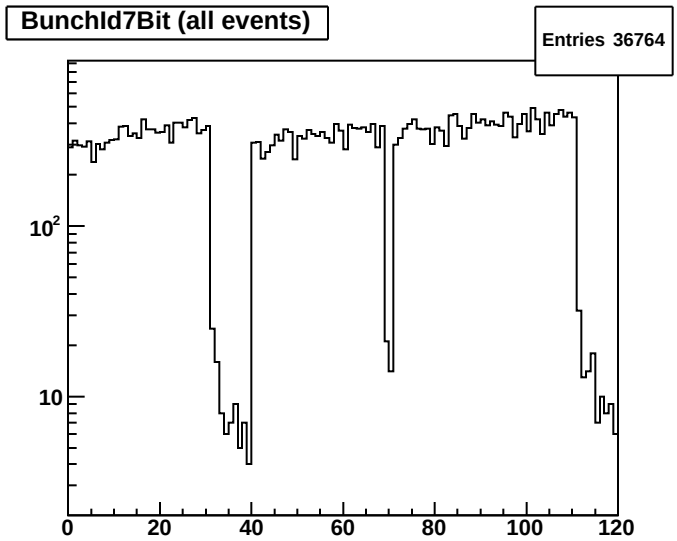

EMC L2 Input - HT23 bits
Entries 294112
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

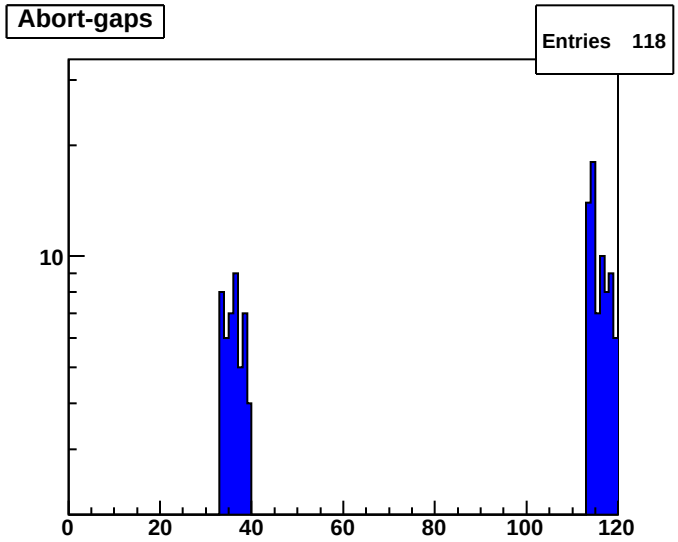

EMC L2 Input - HT23 bits
Entries 3
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

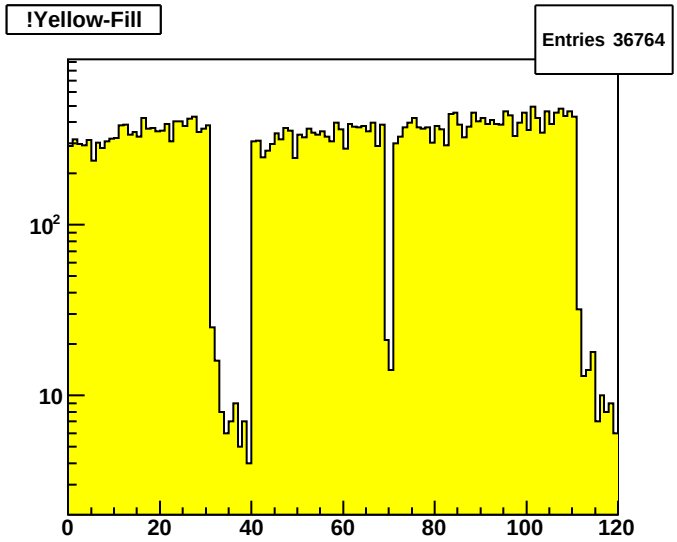

DAQ10k HT bits
Entries 441168
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

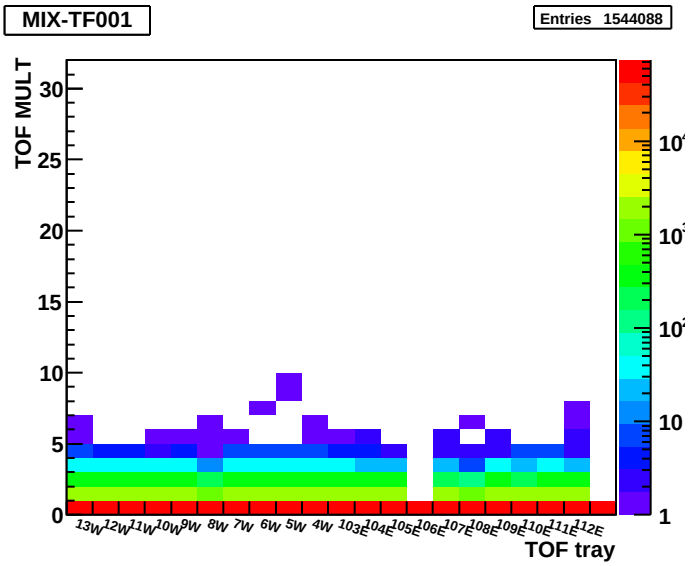

DAQ10k HT bits errors
Entries 441173
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

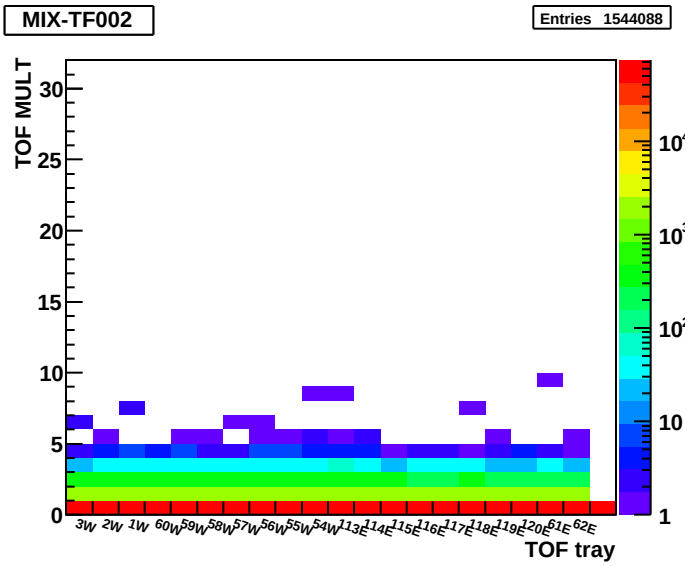

TPC Readout Mask (simulated)
Entries 477932
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

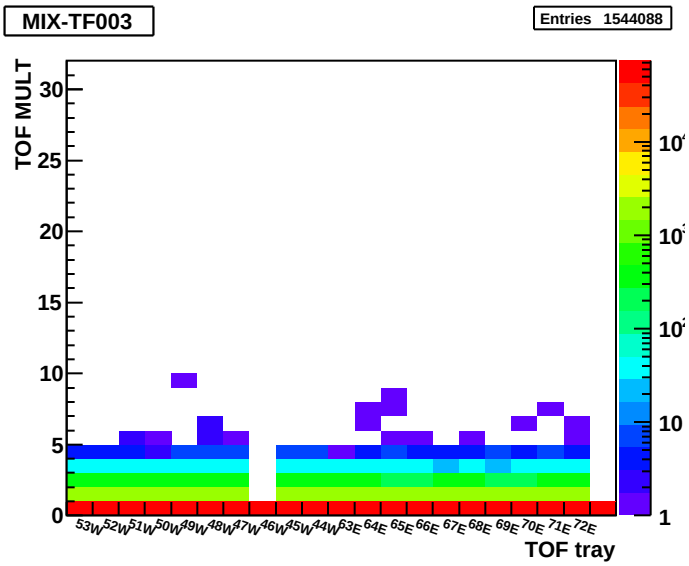

BunchId7Bit (all events)
Entries 36764
10^2
10
0 20 40 60 80 100 120

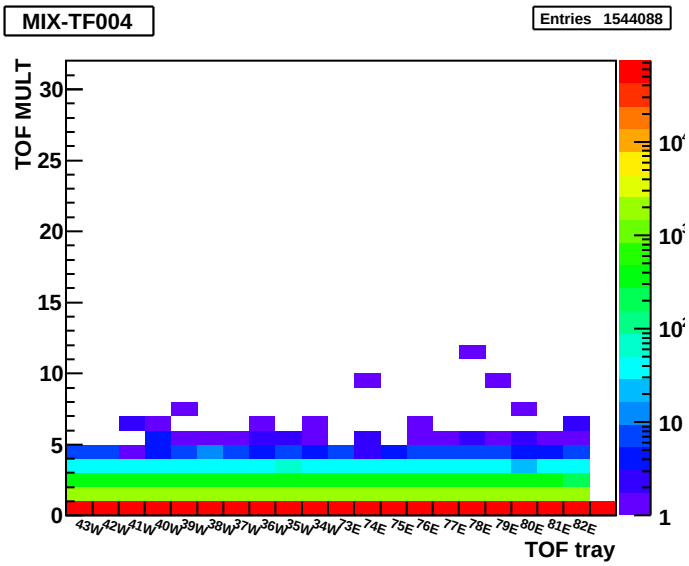

Abort-gaps
Entries 118
10
0 20 40 60 80 100 120

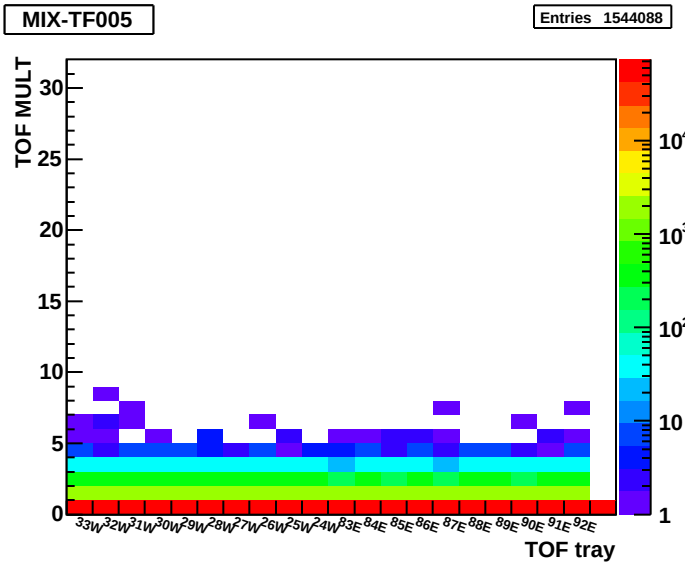

!Yellow-Fill
Entries 36764
10^2
10
0 20 40 60 80 100 120

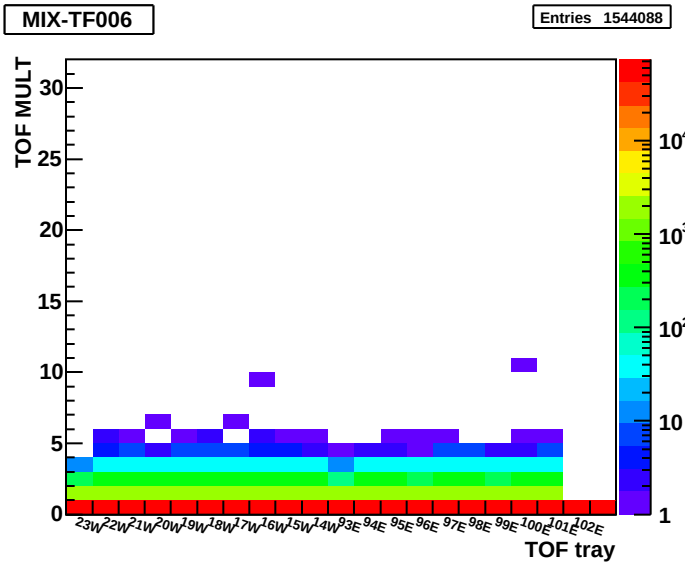

MIX-TF001
Entries 1544088
TOF MULT
TOF tray

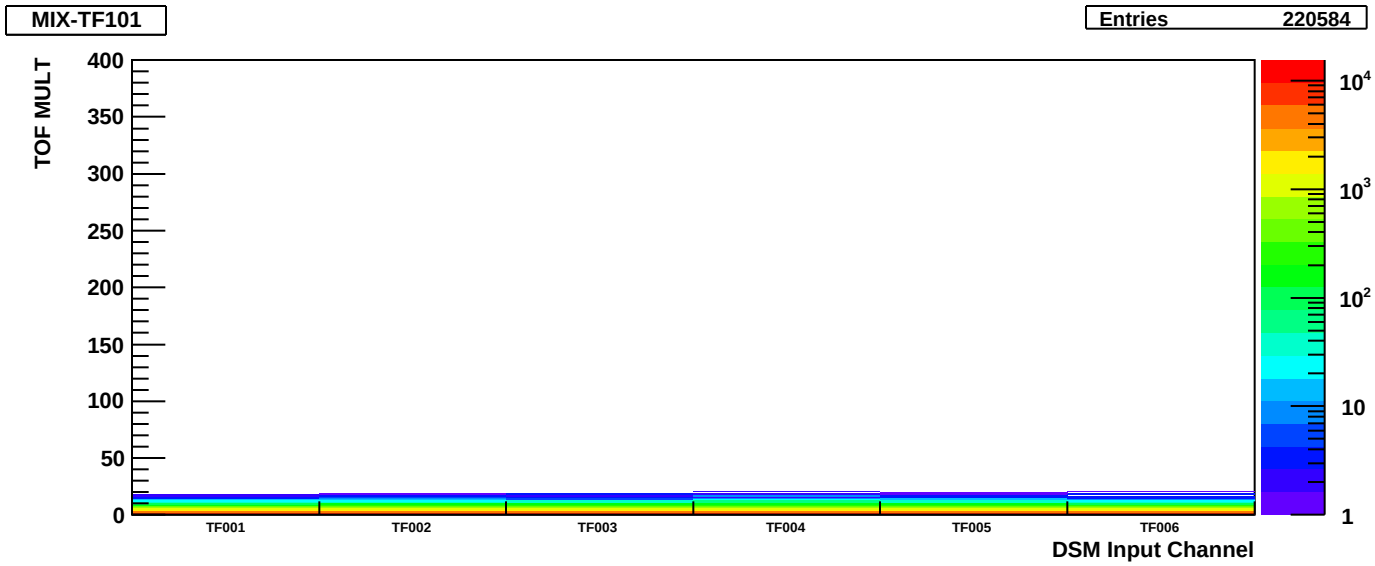

MIX-TF002
Entries 1544088
TOF MULT
TOF tray

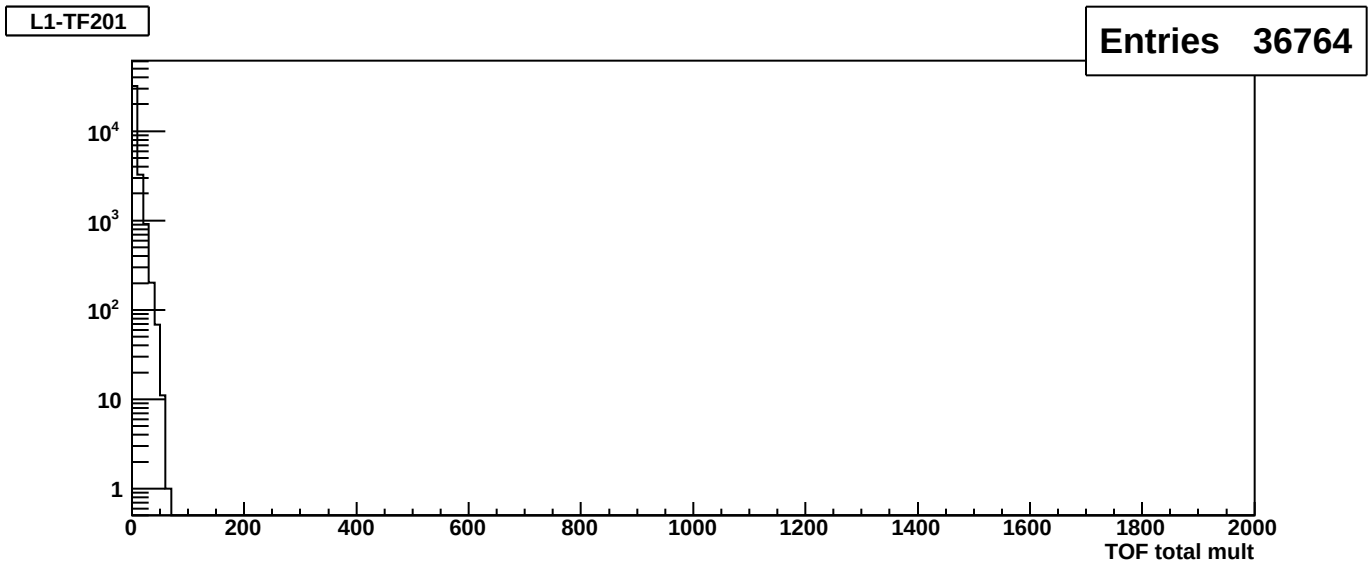

MIX-TF003
Entries 1544088
TOF MULT
TOF tray

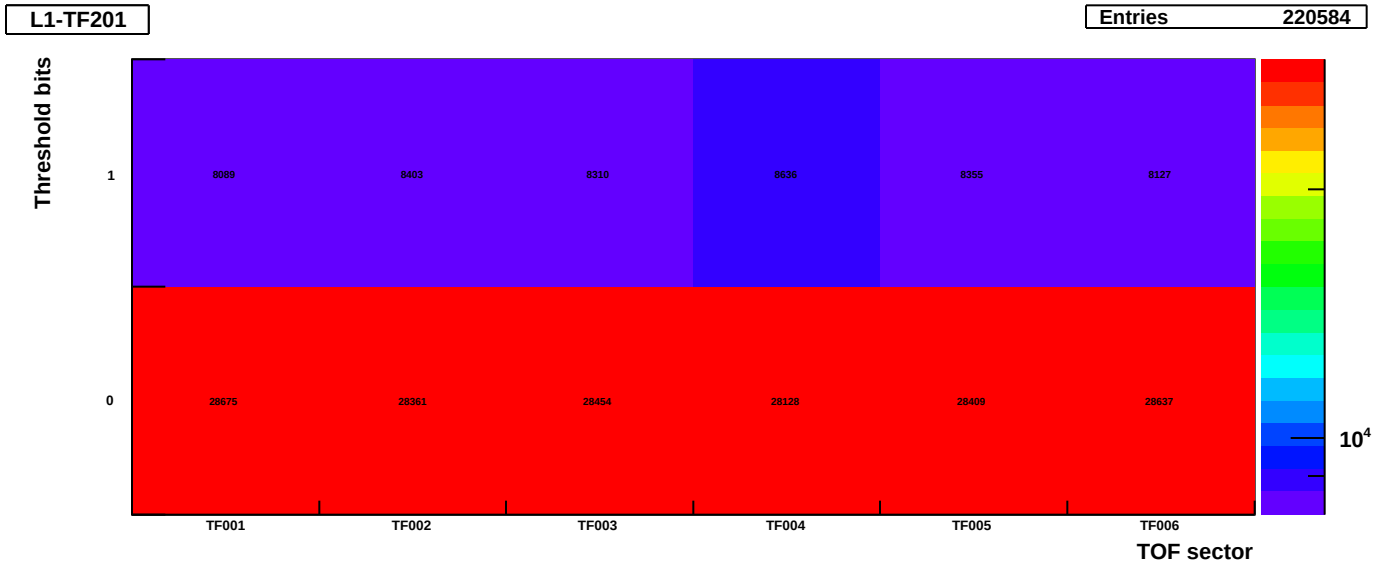

MIX-TF004
Entries 1544088
TOF MULT
TOF tray

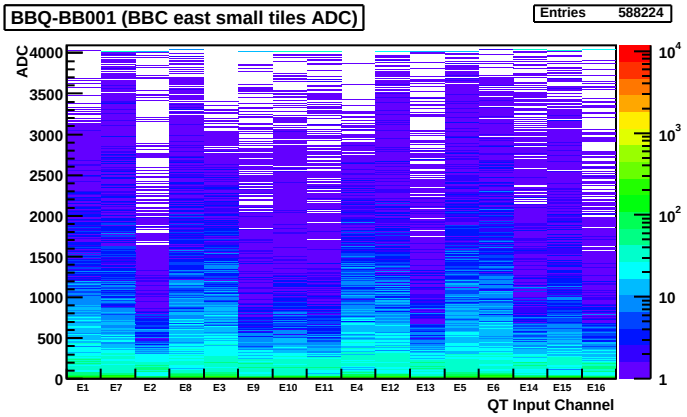

MIX-TF005
Entries 1544088
TOF MULT
TOF tray

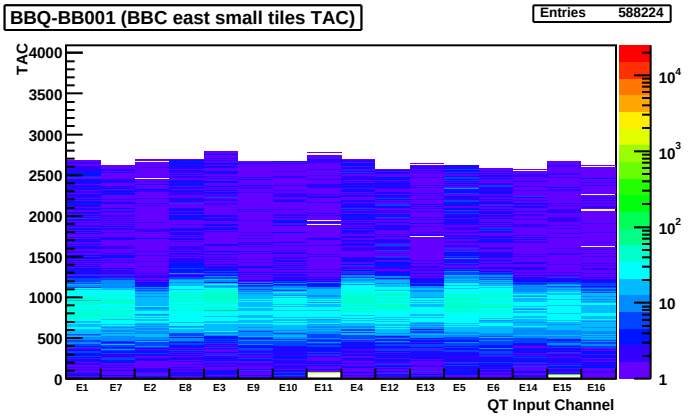

MIX-TF006
Entries 1544088
TOF MULT
TOF tray

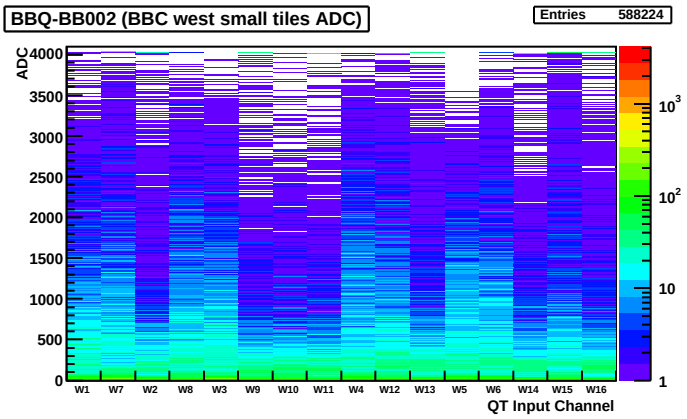

MIX-TF101
Entries 220584
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

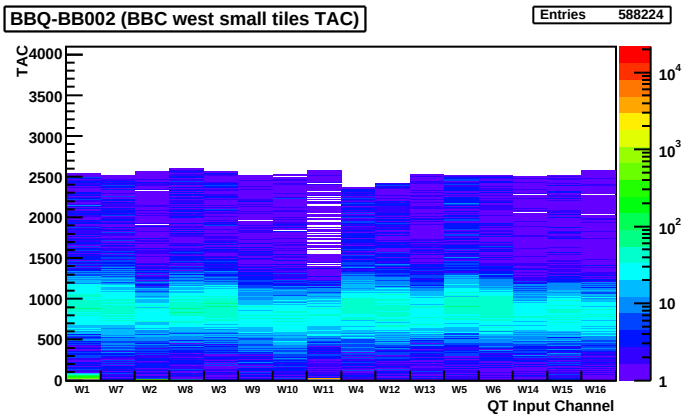

L1-TF201
Entries 36764
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

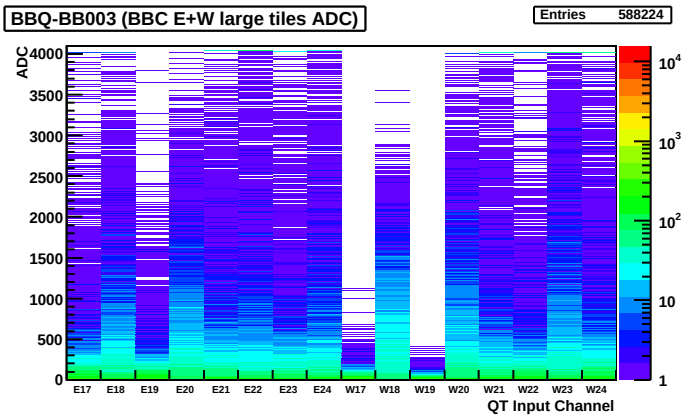

L1-TF201
Entries 220584
Threshold bits
1
0
8089
8403
8310
8636
8355
8127
28675
28361
28454
28128
28409
28637
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

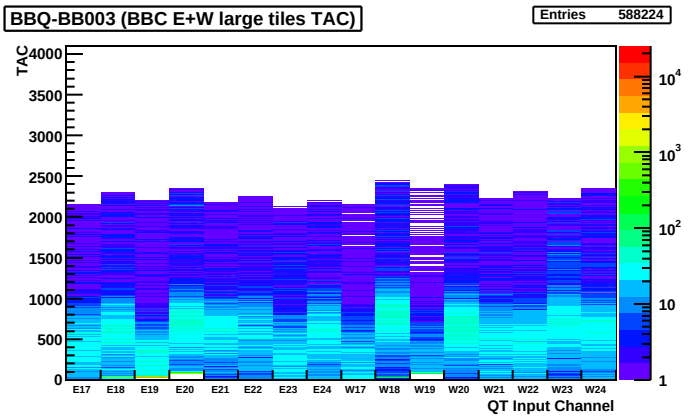

BBQ-BB001 (BBC east small tiles ADC)
Entries 588224
ADC
QT Input Channel

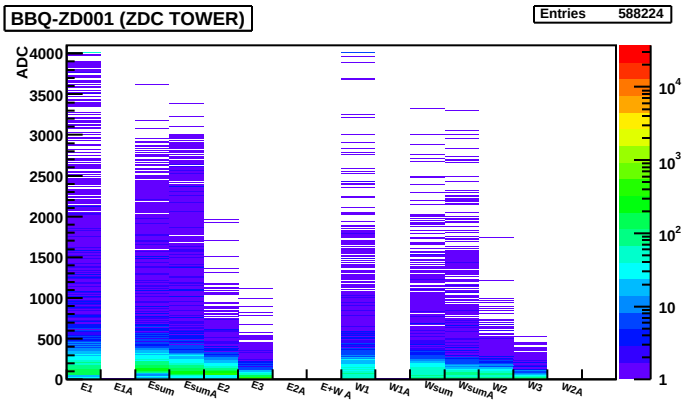

BBQ-BB001 (BBC east small tiles TAC)
Entries 588224
TAC
QT Input Channel

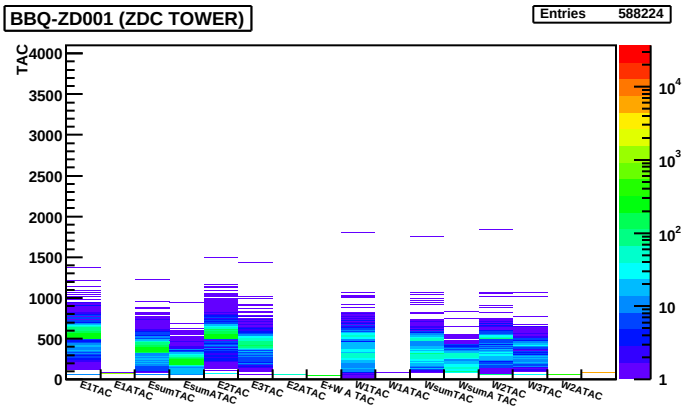

BBQ-BB002 (BBC west small tiles ADC)
Entries 588224
ADC
QT Input Channel

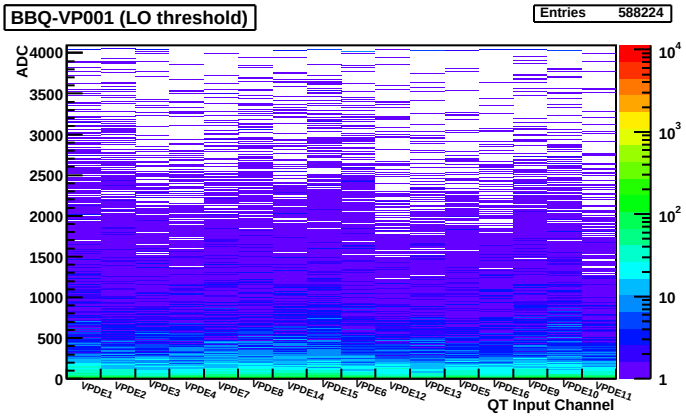

BBQ-BB002 (BBC west small tiles TAC)
Entries 588224
TAC
QT Input Channel

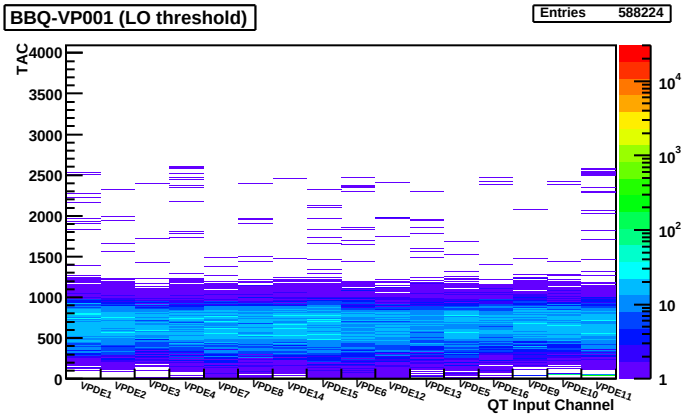

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 588224
ADC
QT Input Channel

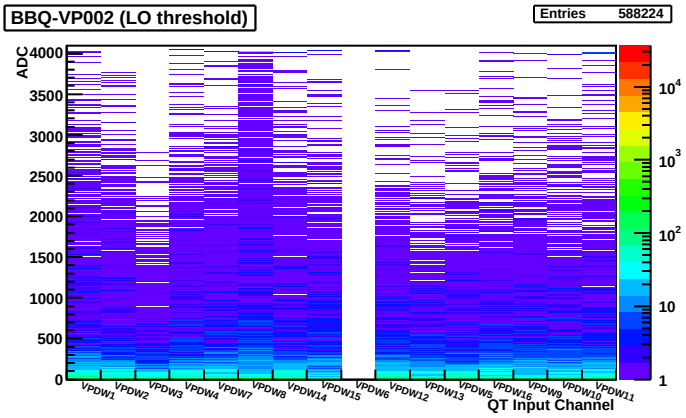

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 588224
TAC
QT Input Channel

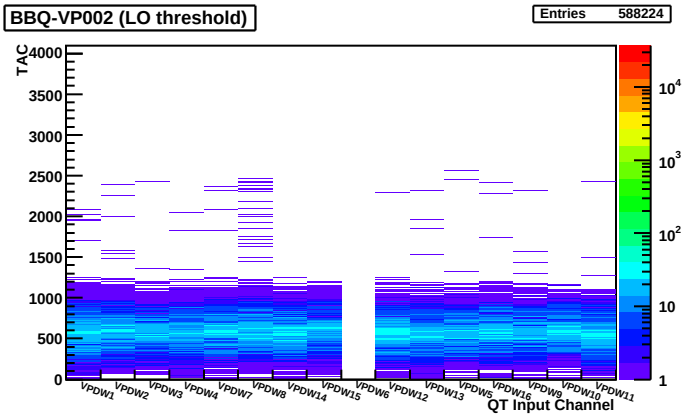

BBQ-ZD001 (ZDC TOWER)
Entries 588224
ADC

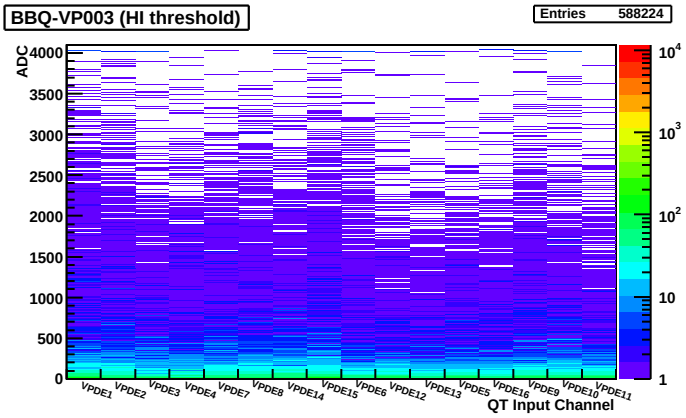

BBQ-ZD001 (ZDC TOWER)
Entries 588224
TAC

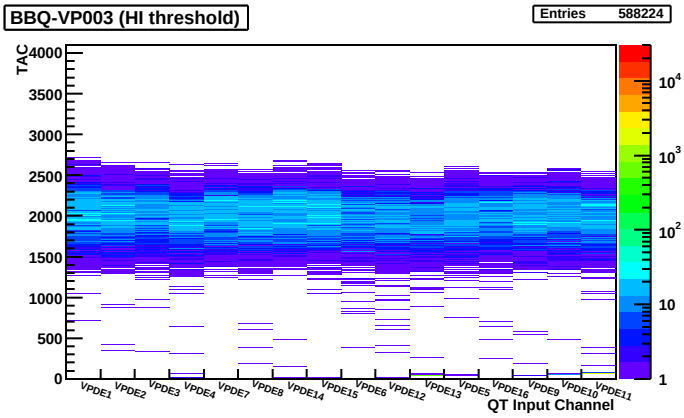

BBQ-VP001 (LO threshold)
Entries 588224
ADC
QT Input Channel

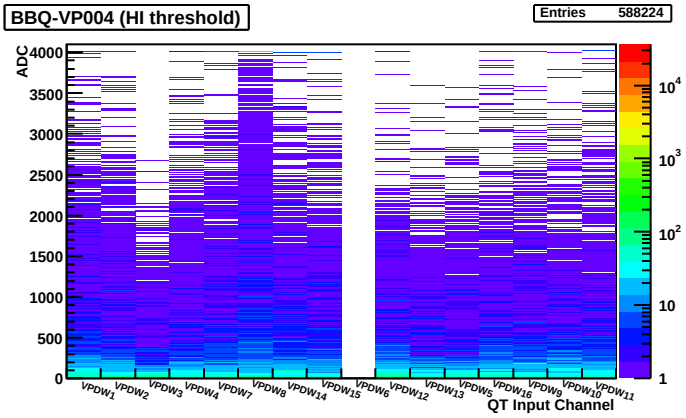

BBQ-VP001 (LO threshold)
Entries 588224
TAC
QT Input Channel

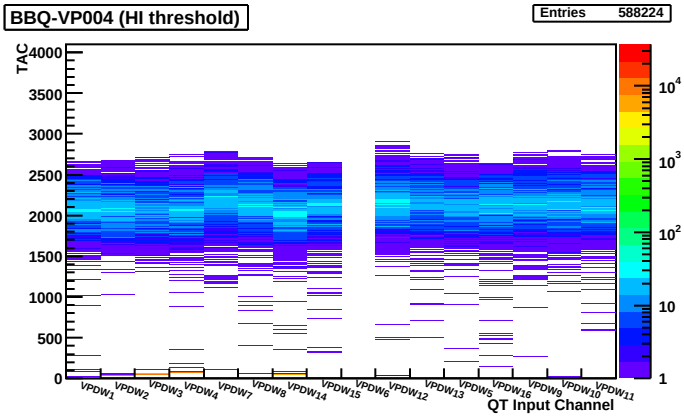

BBQ-VP002 (LO threshold)
Entries 588224
ADC
QT Input Channel

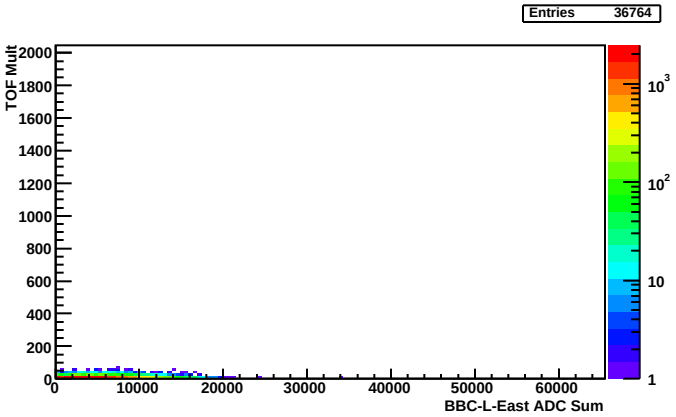

BBQ-VP002 (LO threshold)
Entries 588224
TAC
QT Input Channel

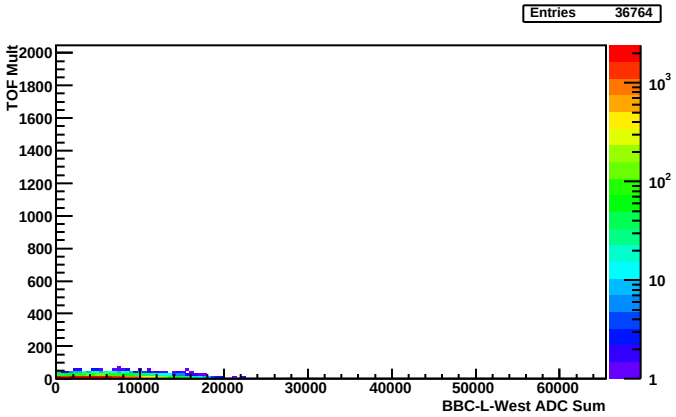

BBQ-VP003 (HI threshold)
Entries 588224
ADC
QT Input Channel

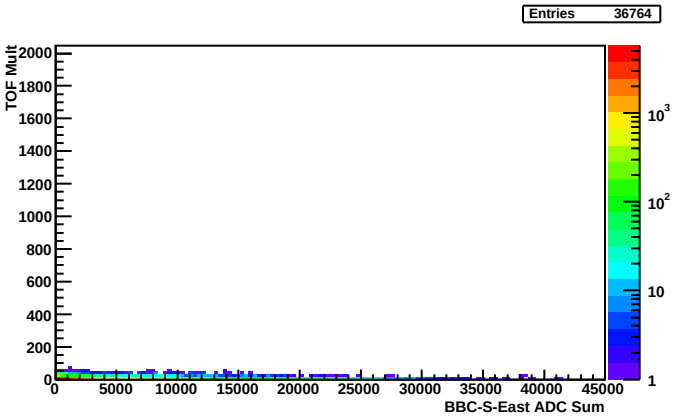

BBQ-VP003 (HI threshold)
Entries 588224
TAC
QT Input Channel

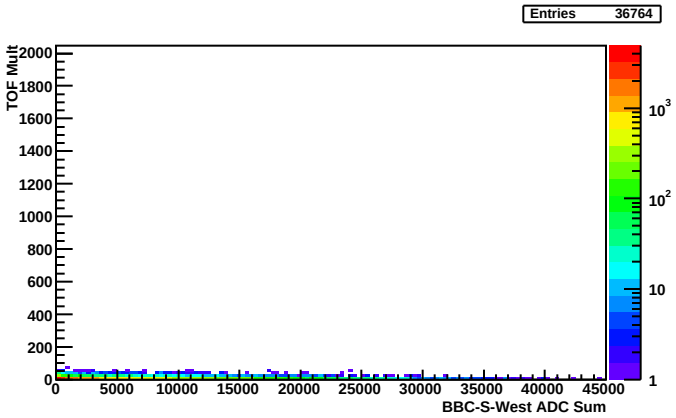

BBQ-VP004 (HI threshold)
Entries 588224
ADC
QT Input Channel

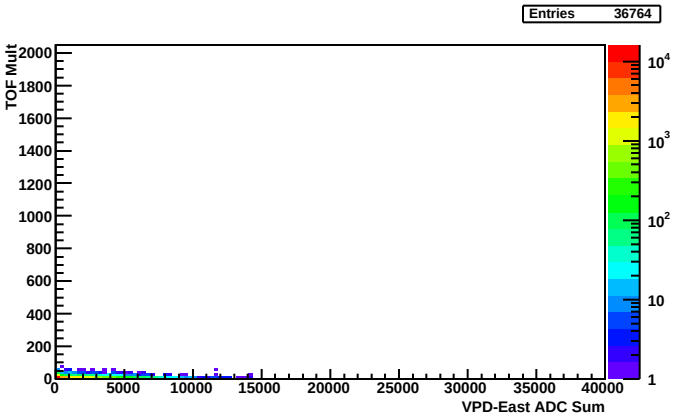

BBQ-VP004 (HI threshold)
Entries 588224
TAC
QT Input Channel

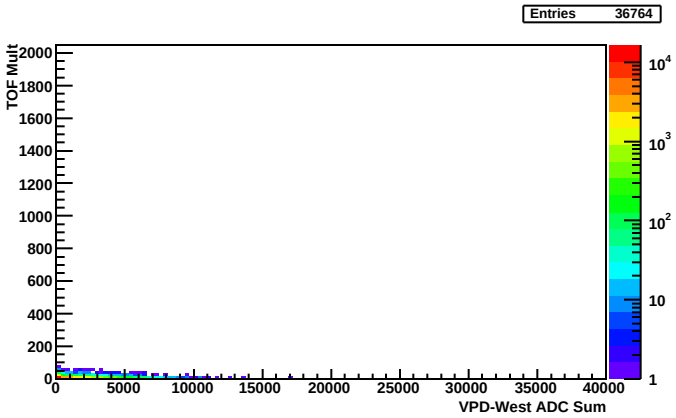

Entries 36764
TOF Mult
BBC-L-East ADC Sum

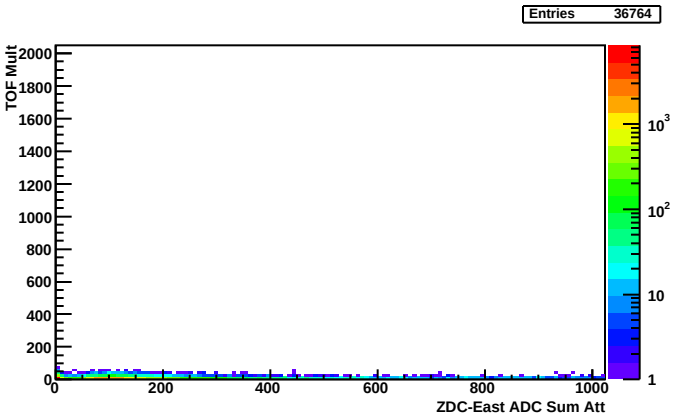

Entries 36764
TOF Mult
BBC-L-West ADC Sum

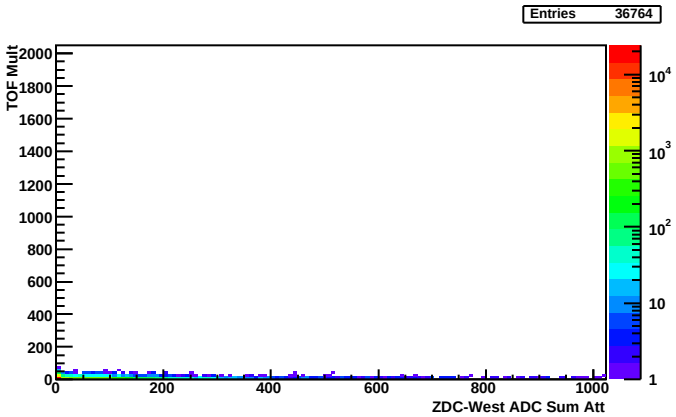

Entries 36764
TOF Mult
BBC-S-East ADC Sum

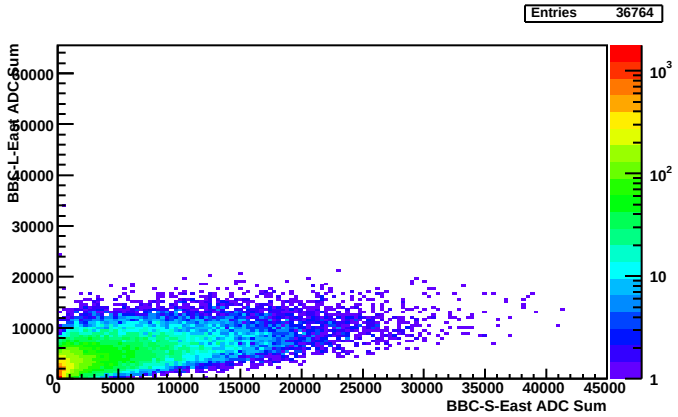

Entries 36764
TOF Mult
BBC-S-West ADC Sum

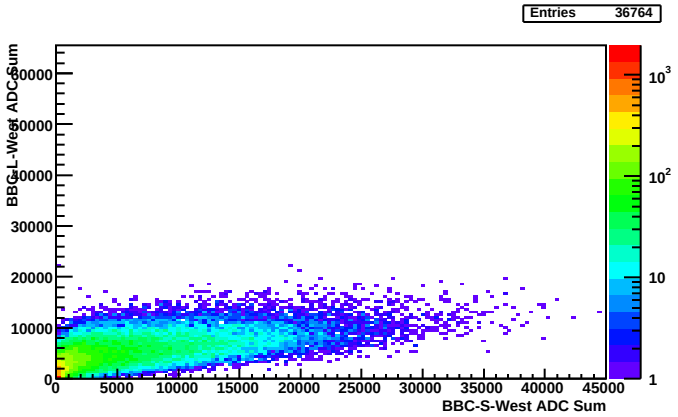

Entries 36764
TOF Mult
VPD-East ADC Sum

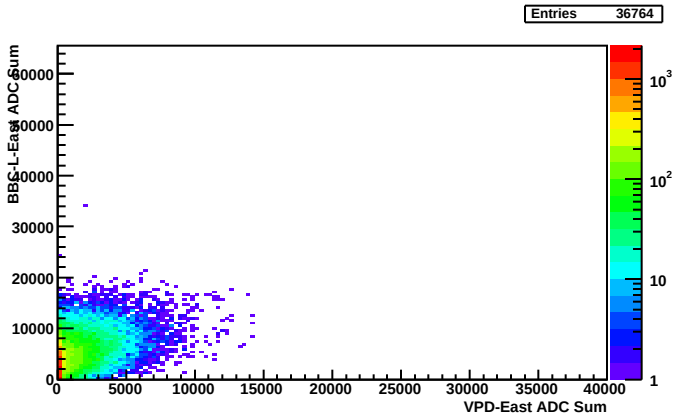

Entries 36764
TOF Mult
VPD-West ADC Sum

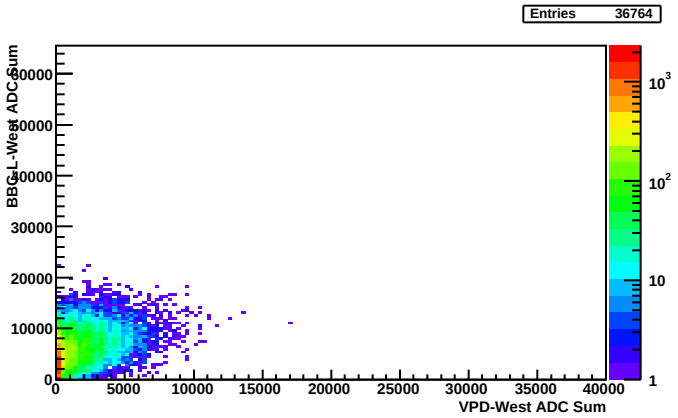

Entries 36764
TOF Mult
ZDC-East ADC Sum Att

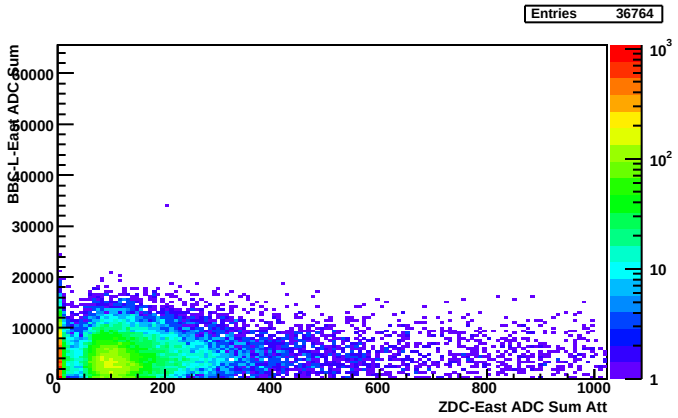

Entries 36764
TOF Mult
ZDC-West ADC Sum Att

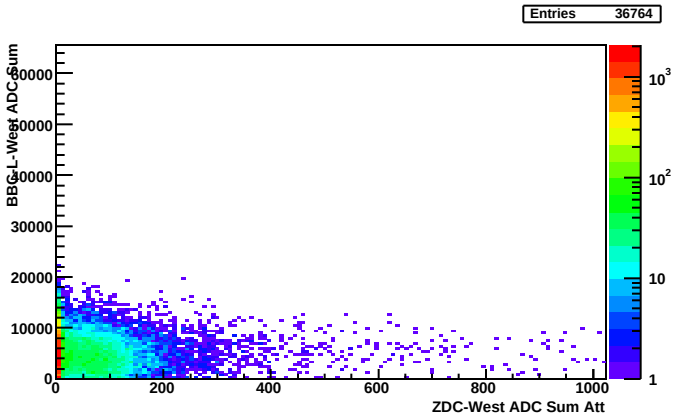

Entries 36764
BBC-L-East ADC Sum
BBC-S-East ADC Sum

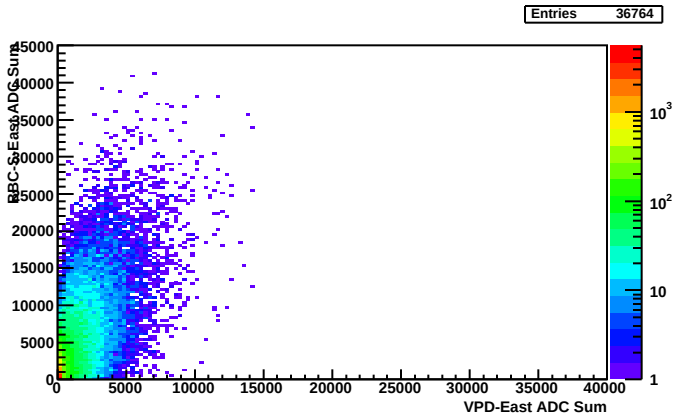

Entries 36764
BBC-L-West ADC Sum
BBC-S-West ADC Sum

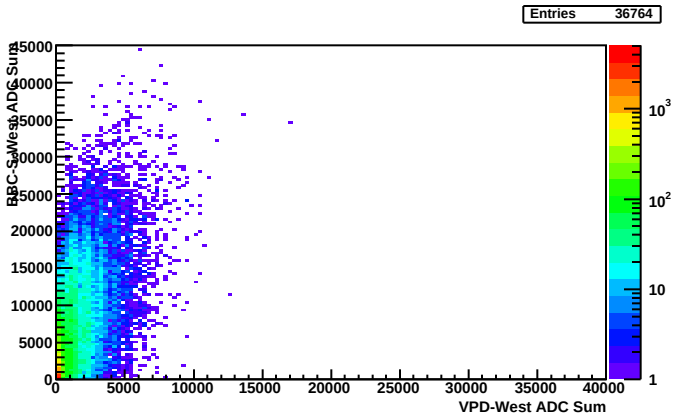

Entries 36764
BBC-L-East ADC Sum
VPD-East ADC Sum

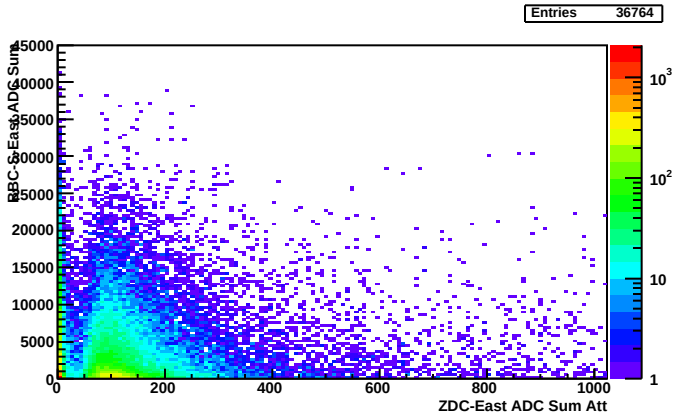

Entries 36764
BBC-L-West ADC Sum
VPD-West ADC Sum

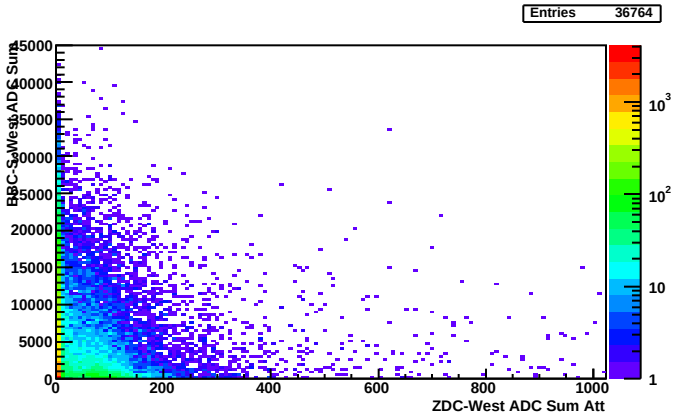

Entries 36764
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

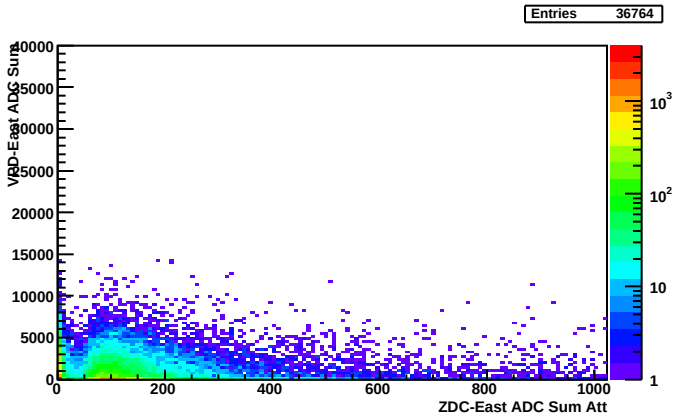

Entries 36764
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

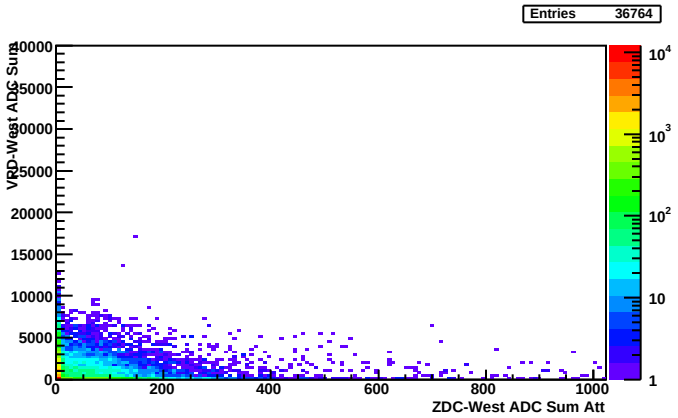

Entries 36764
BBC-S-East ADC Sum
VPD-East ADC Sum

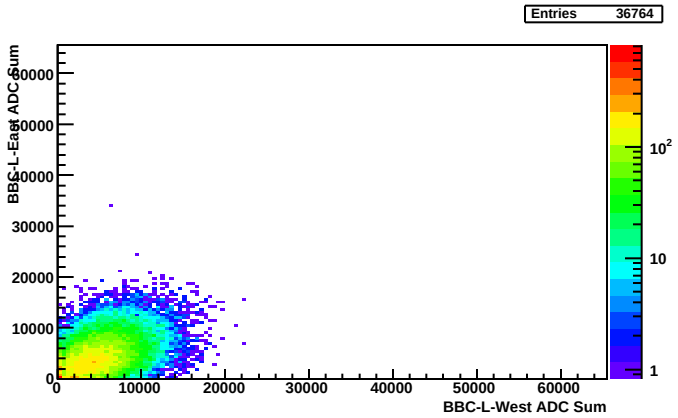

Entries 36764
BBC-S-West ADC Sum
VPD-West ADC Sum

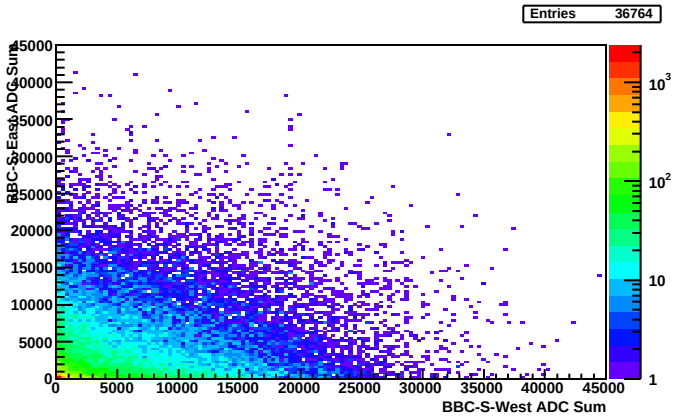

Entries 36764
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

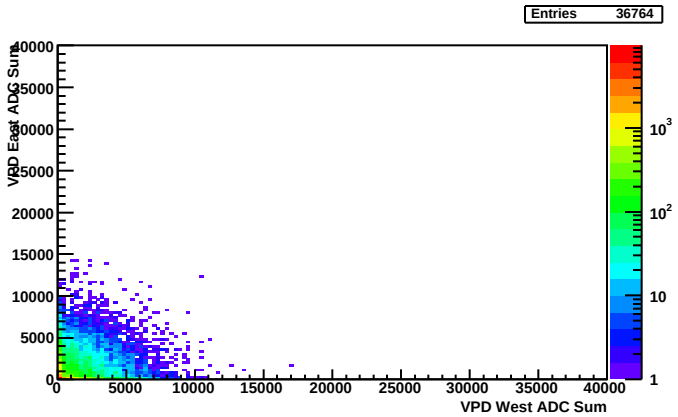

Entries 36764
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

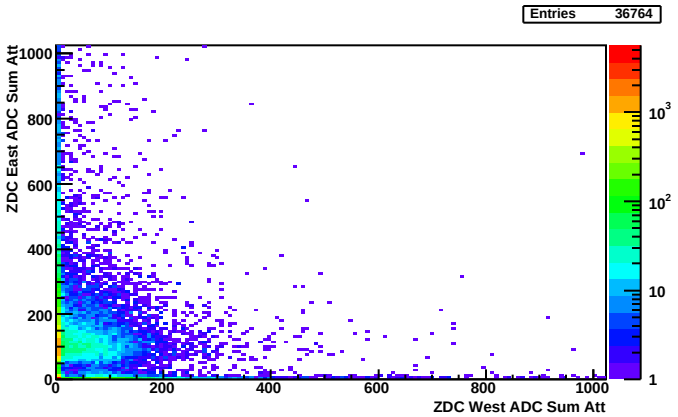

Entries 36764
VPD-East ADC Sum
ZDC-East ADC Sum Att

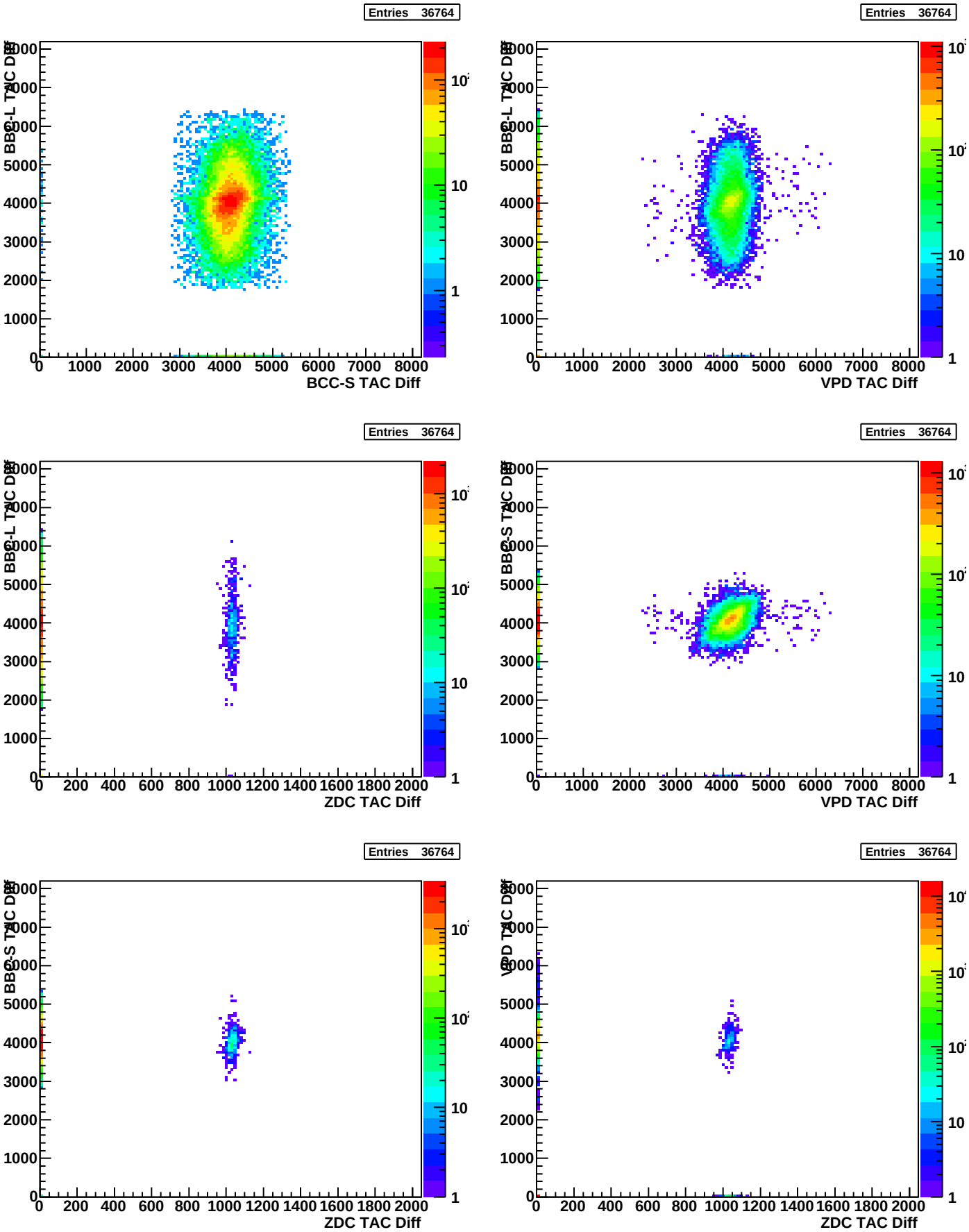

Entries 36764
VPD-West ADC Sum
ZDC-West ADC Sum Att

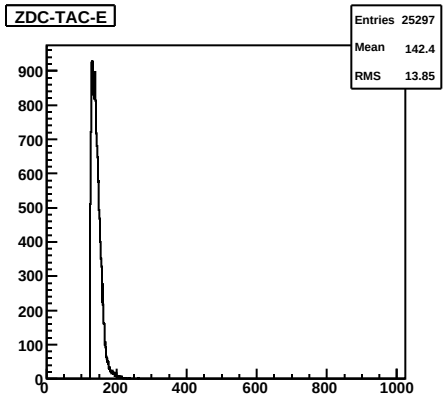

Entries 36764
BBC-L-East ADC Sum
BBC-L-West ADC Sum

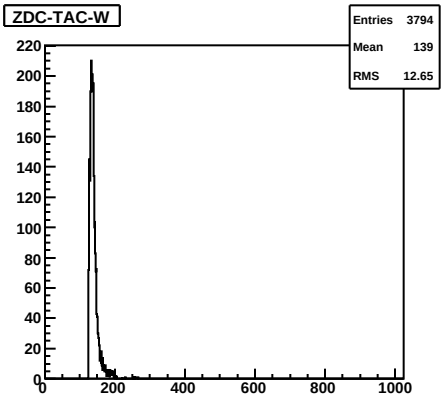

Entries 36764
BBC-S-East ADC Sum
BBC-S-West ADC Sum

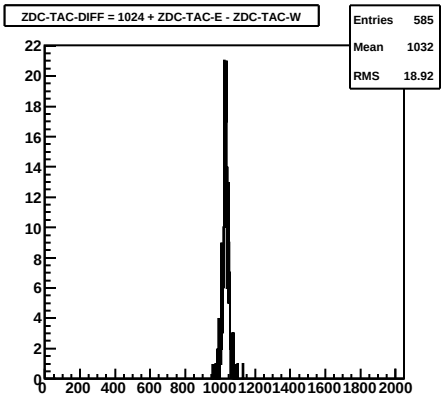

Entries 36764
VPD East ADC Sum
VPD West ADC Sum

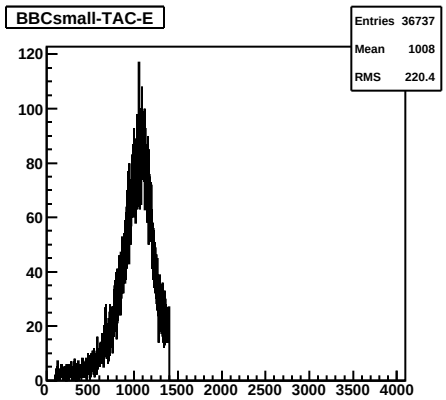

Entries 36764
ZDC East ADC Sum Att
ZDC West ADC Sum Att

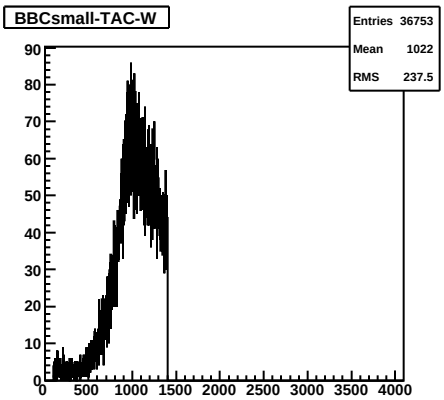

Entries 36764
BBC-L TAC Diff
BCC-S TAC Diff
Entries 36764
BBC-L TAC Diff
VPD TAC Diff
Entries 36764
BBC-L TAC Diff
ZDC TAC Diff
Entries 36764
BBC-S TAC Diff
VPD TAC Diff
Entries 36764
BBC-S TAC Diff
ZDC TAC Diff
Entries 36764
VPD TAC Diff
ZDC TAC Diff

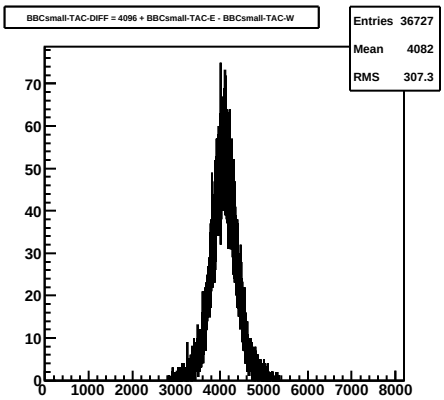

ZDC-TAC-E
Entries 25297
Mean 142.4
RMS 13.85

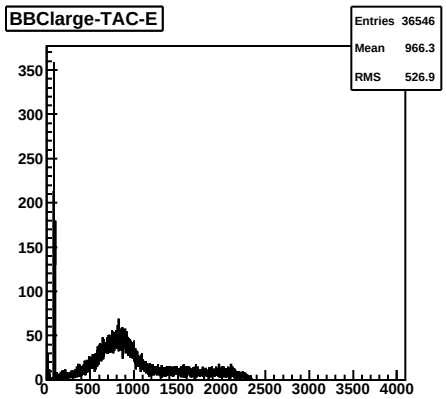

ZDC-TAC-W
Entries 3794
Mean 139
RMS 12.65

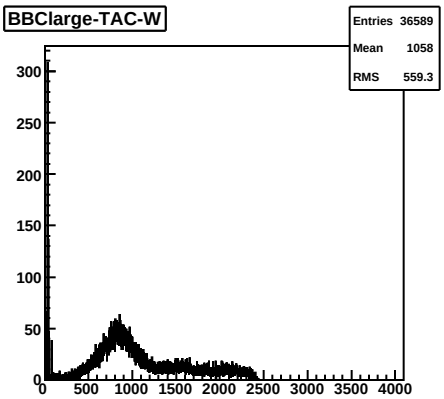

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 585
Mean 1032
RMS 18.92

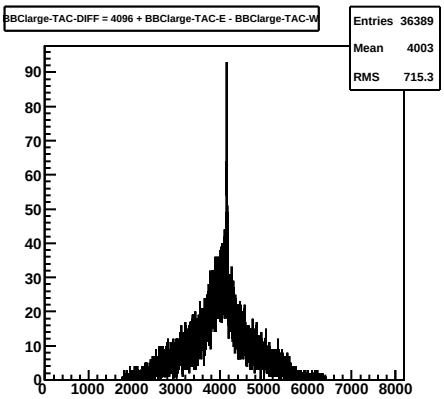

BBCsmall-TAC-E
Entries 36737
Mean 1008
RMS 220.4

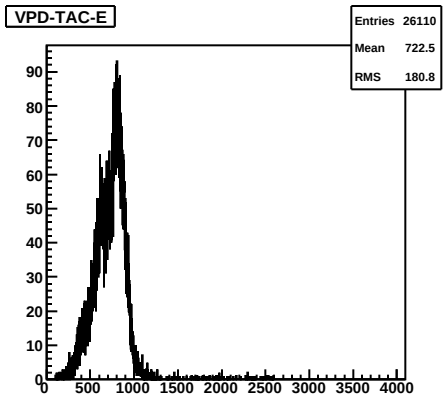

BBCsmall-TAC-W
Entries 36753
Mean 1022
RMS 237.5

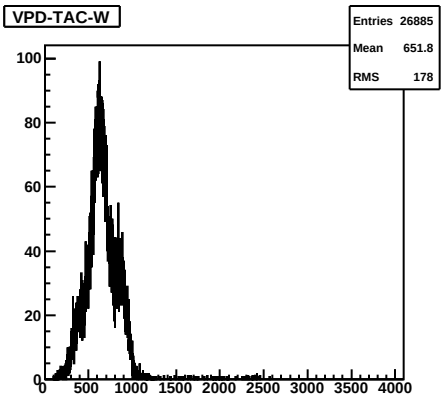

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 36727
Mean 4082
RMS 307.3

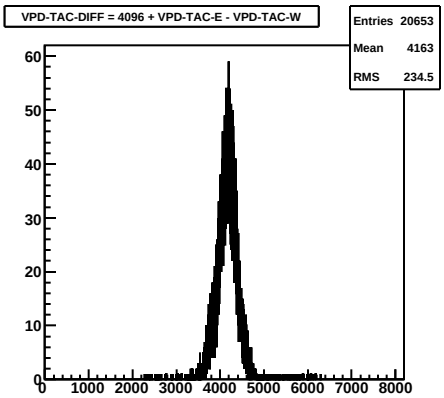

BBClarge-TAC-E
Entries 36546
Mean 966.3
RMS 526.9

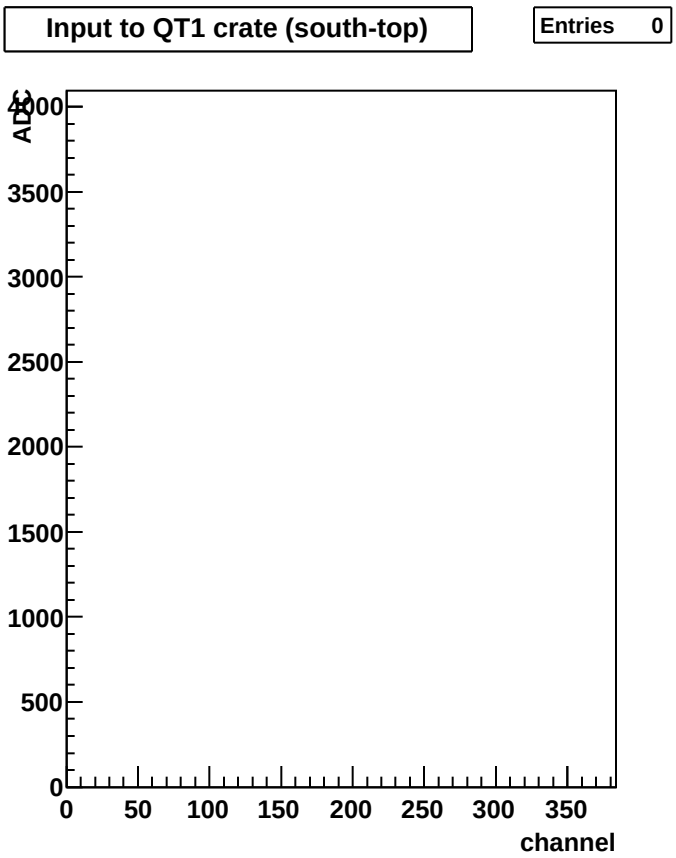

BBClarge-TAC-W
Entries 36589
Mean 1058
RMS 559.3

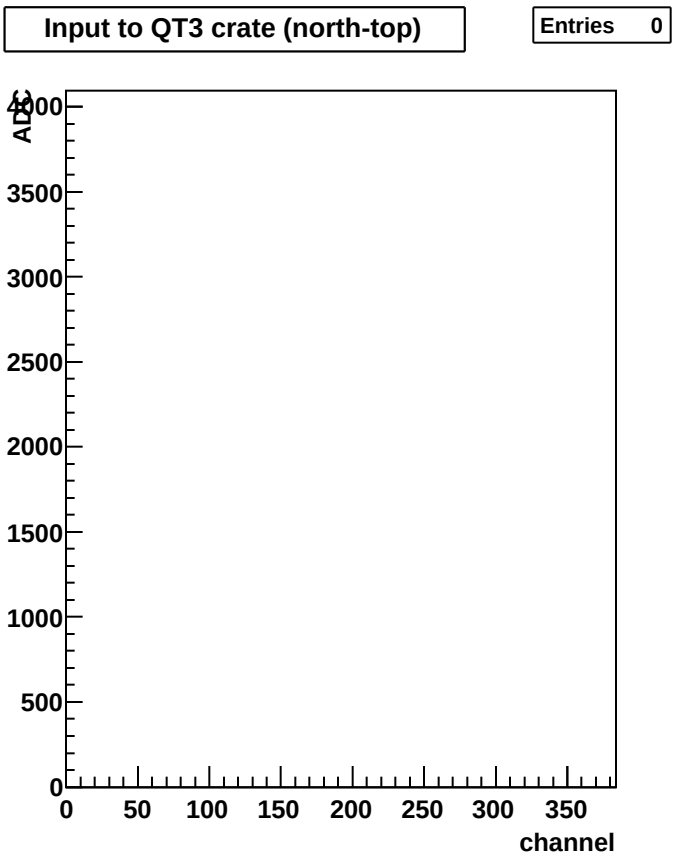

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 36389
Mean 4003
RMS 715.3

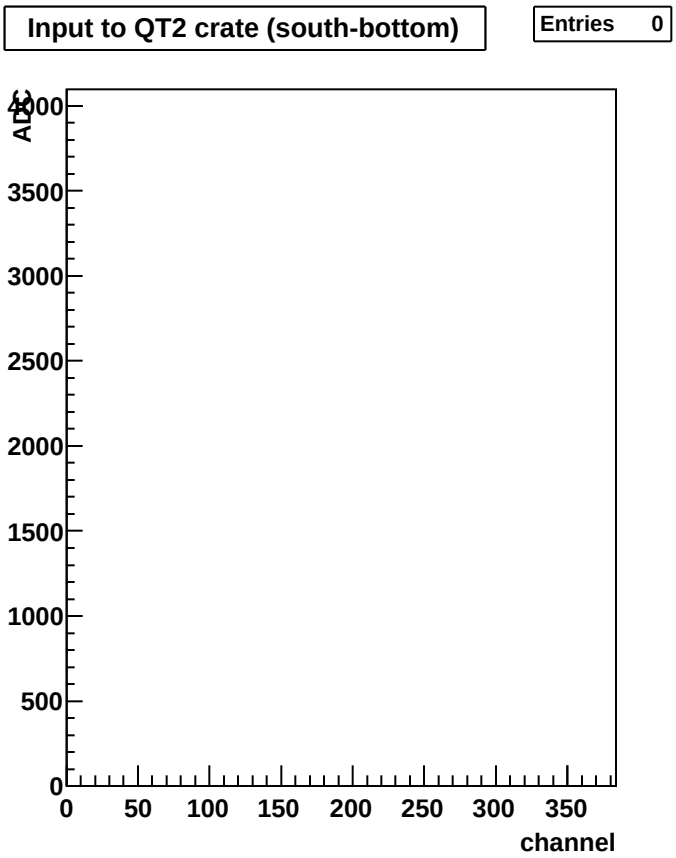

VPD-TAC-E
Entries 26110
Mean 722.5
RMS 180.8

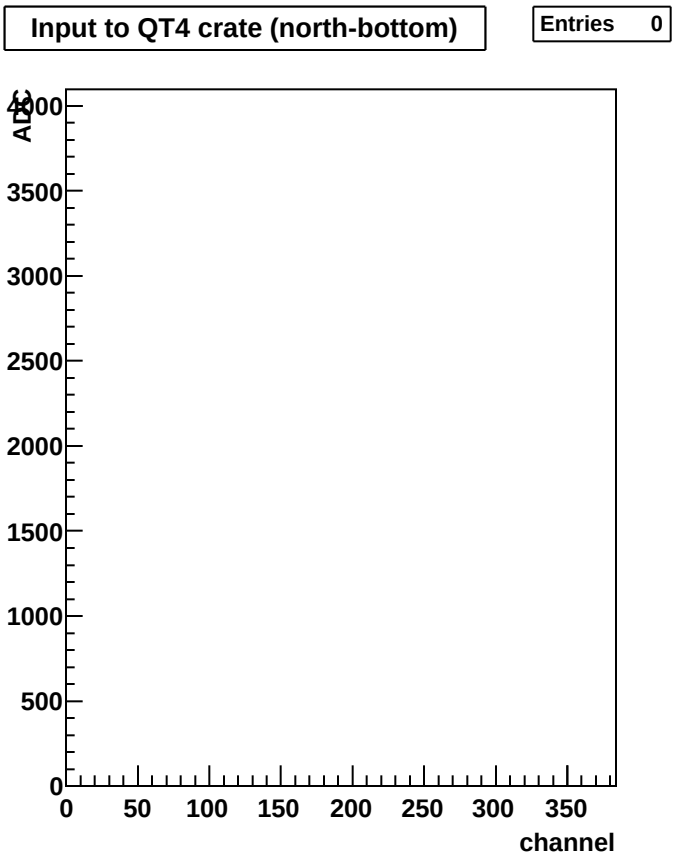

VPD-TAC-W
Entries 26885
Mean 651.8
RMS 178

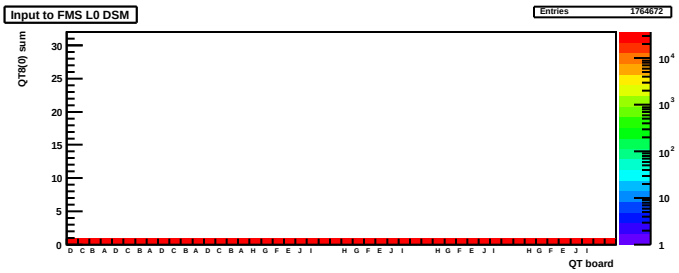

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 20653
Mean 4163
RMS 234.5

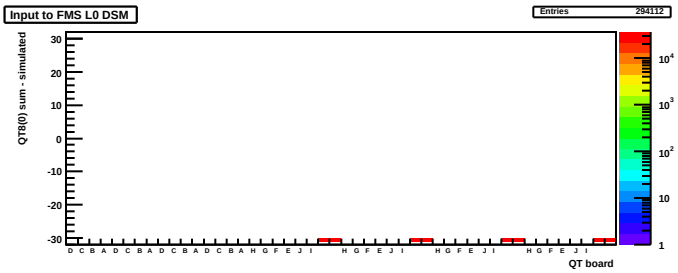

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

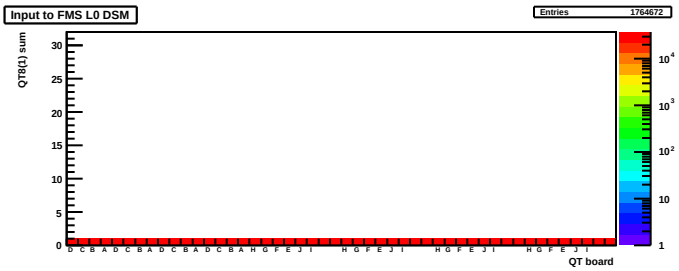

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

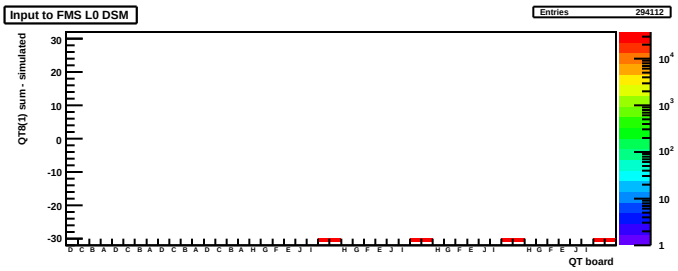

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

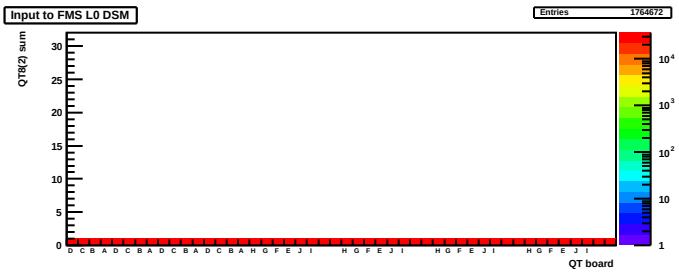

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

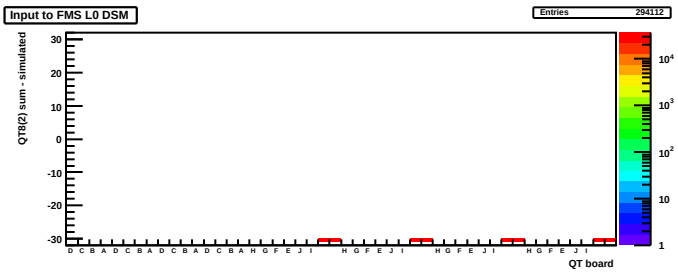

Input to FMS L0 DSM
Entries 1764672
QT8(0) sum
QT board

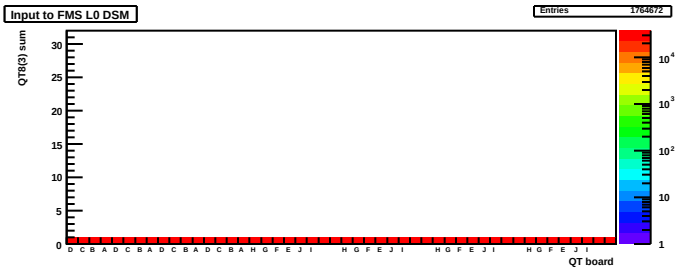

Input to FMS L0 DSM
Entries 294112
QT8(0) sum - simulated
QT board

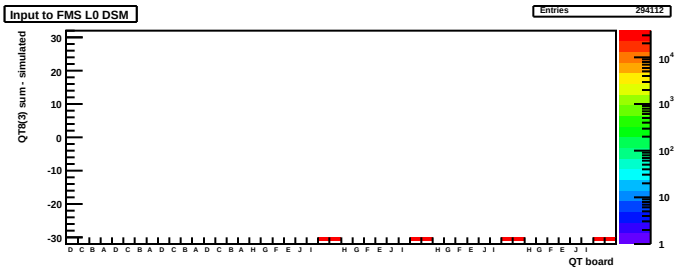

Input to FMS L0 DSM
Entries 1764672
QT8(1) sum
QT board

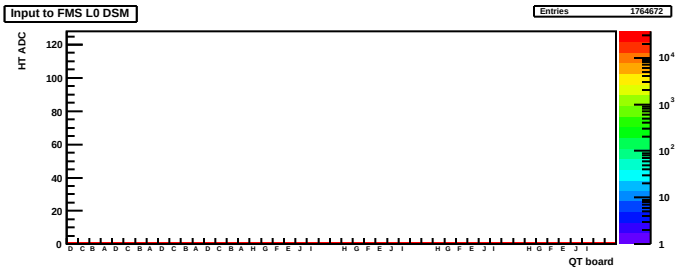

Input to FMS L0 DSM
Entries 294112
QT8(1) sum - simulated
QT board

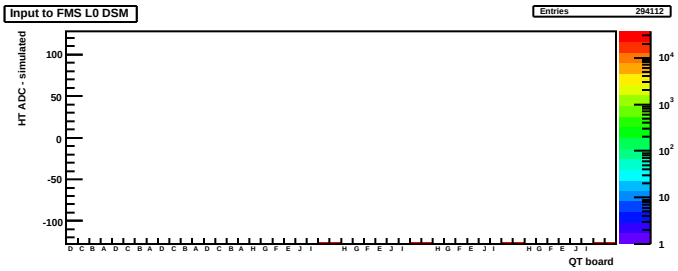

Input to FMS L0 DSM
Entries 1764672
QT8(2) sum
QT board

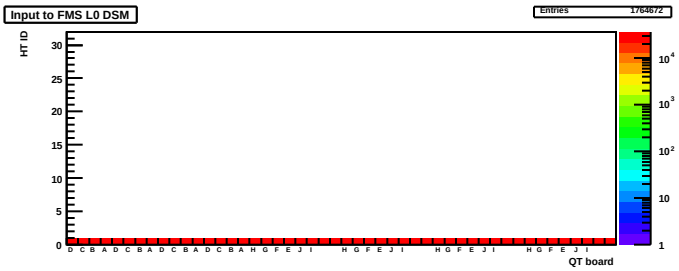

Input to FMS L0 DSM
Entries 294112
QT8(2) sum - simulated
QT board

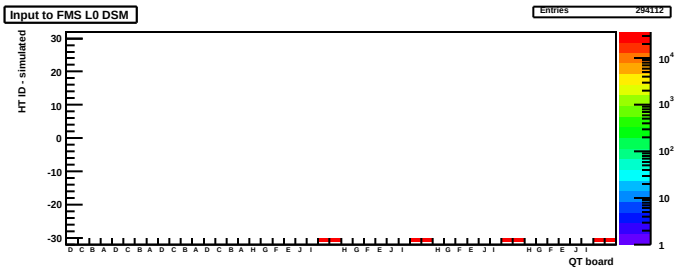

Input to FMS L0 DSM
Entries 1764672
QT8(3) sum
QT board

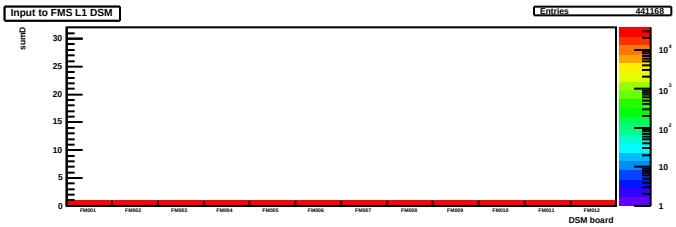

Input to FMS L0 DSM
Entries 294112
QT8(3) sum - simulated
QT board

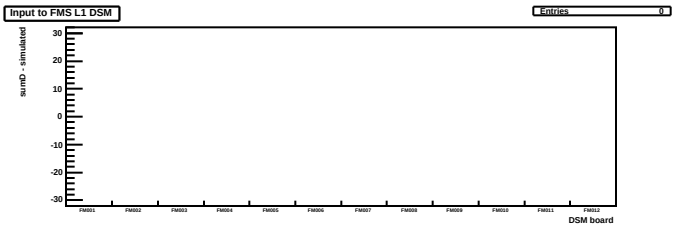

Input to FMS L0 DSM
Entries 1764672
HT ADC
QT board

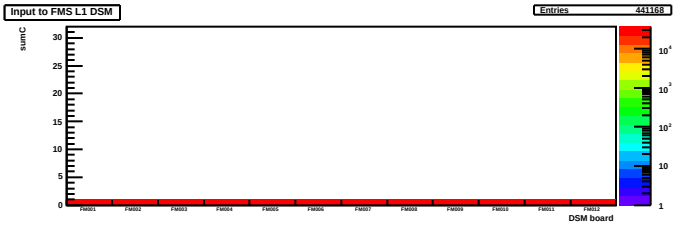

Input to FMS L0 DSM
Entries 294112
HT ADC - simulated
QT board

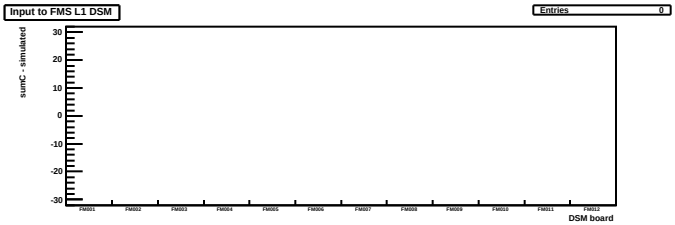

Input to FMS L0 DSM
Entries 1764672
HT ID
QT board

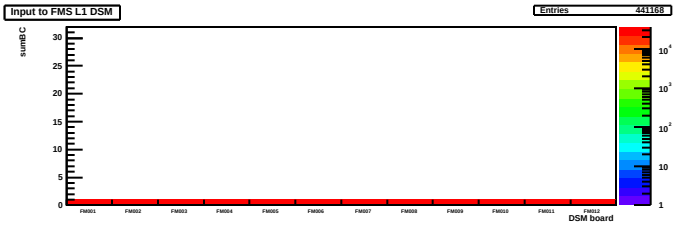

Input to FMS L0 DSM
Entries 294112
HT ID - simulated
QT board

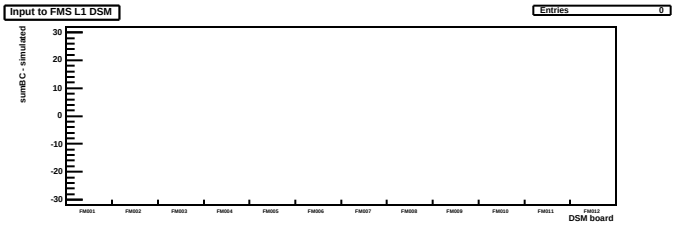

Input to FMS L1 DSM
Entries 441168
sumD
DSM board

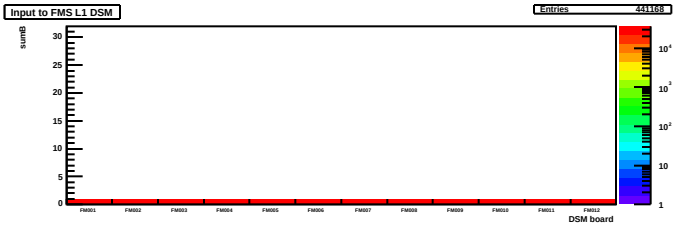

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

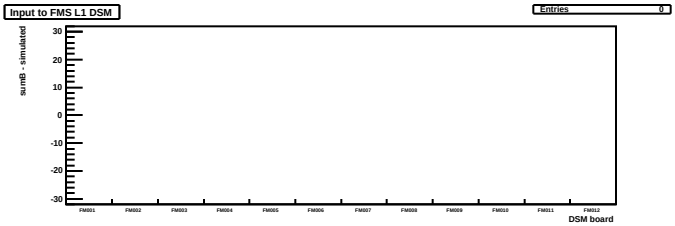

Input to FMS L1 DSM
Entries 441168
sumC
DSM board

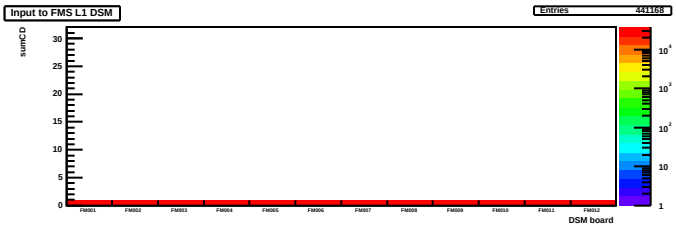

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

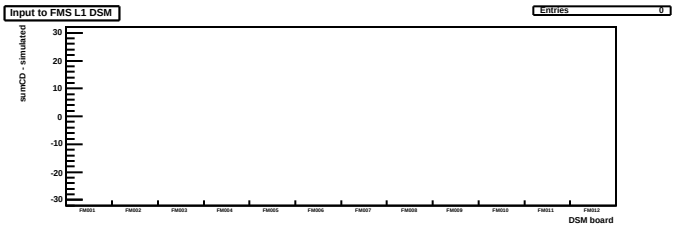

Input to FMS L1 DSM
Entries 441168
sumBC
DSM board

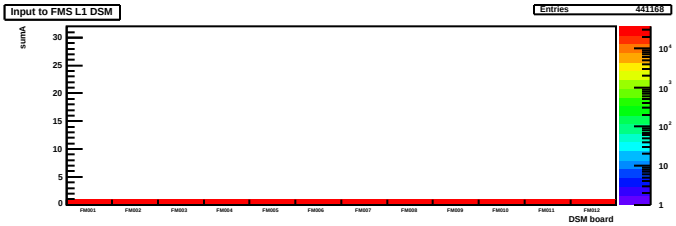

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

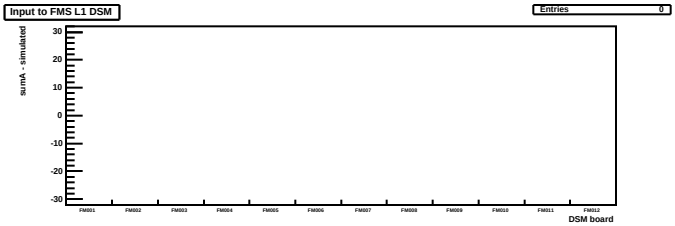

Input to FMS L1 DSM
Entries 441168
sumB
DSM board

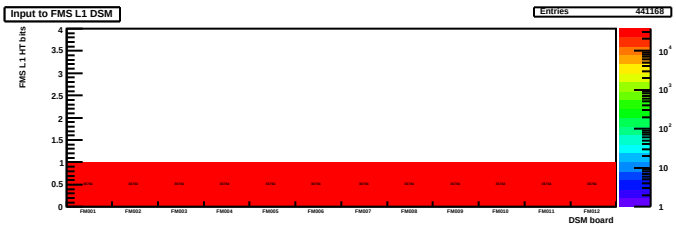

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

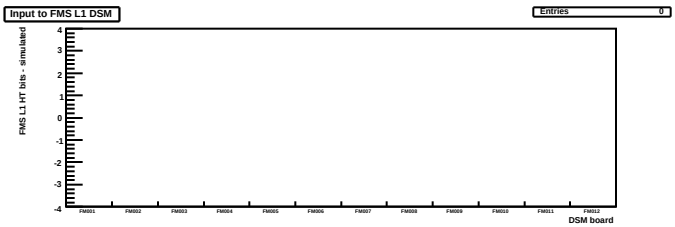

Input to FMS L1 DSM
Entries 441168
sumCD
DSM board

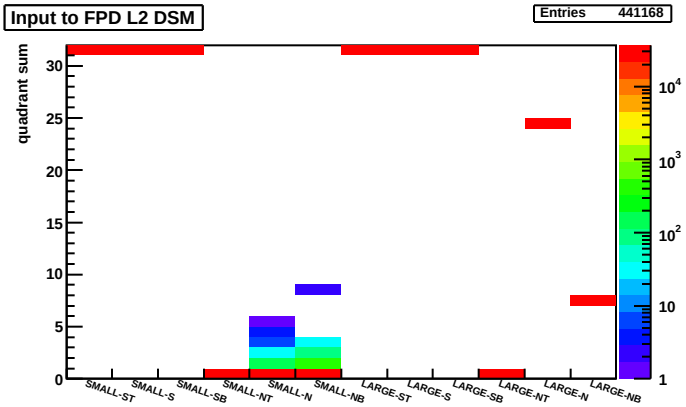

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

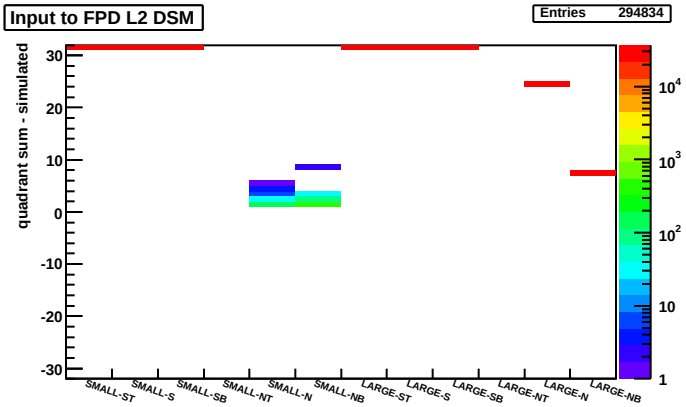

Input to FMS L1 DSM
Entries 441168
sumA
DSM board

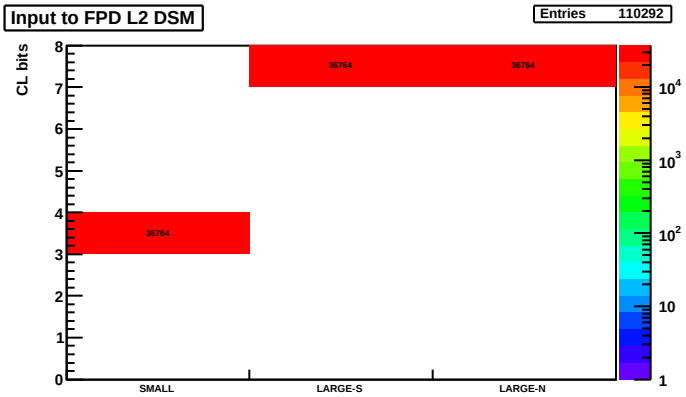

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

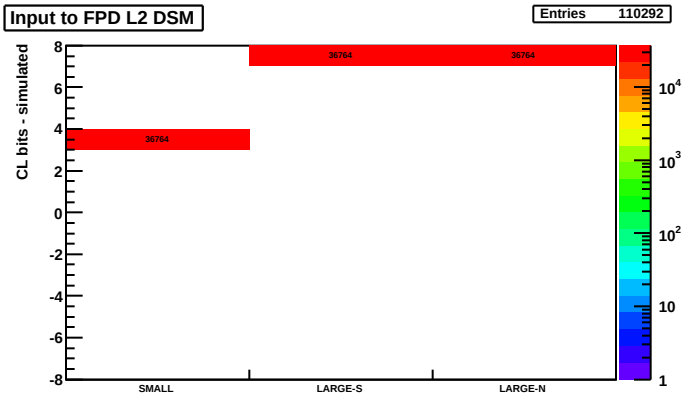

Input to FMS L1 DSM
Entries 441168
FMS L1 HT bits
DSM board

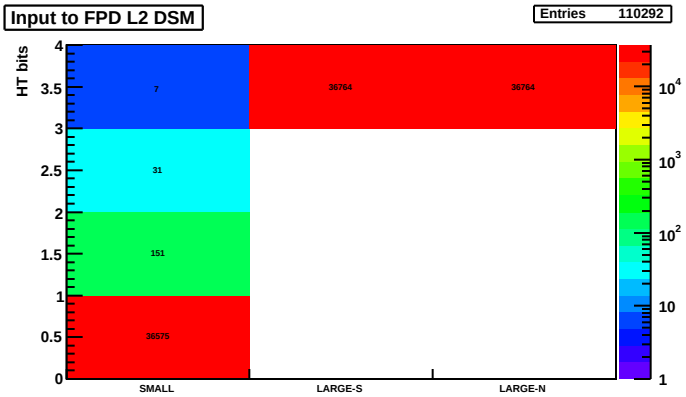

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

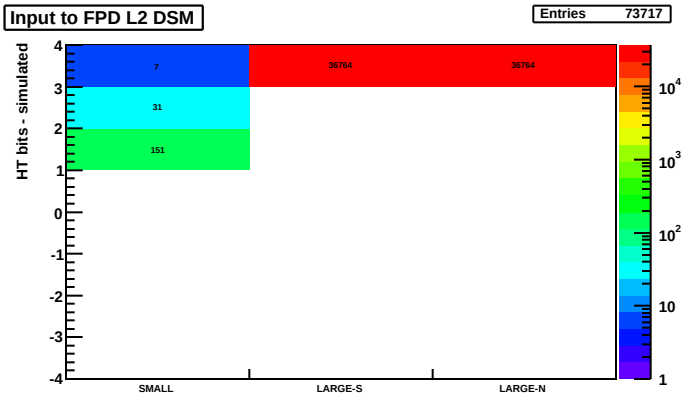

Input to FPD L2 DSM
Entries 441168
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

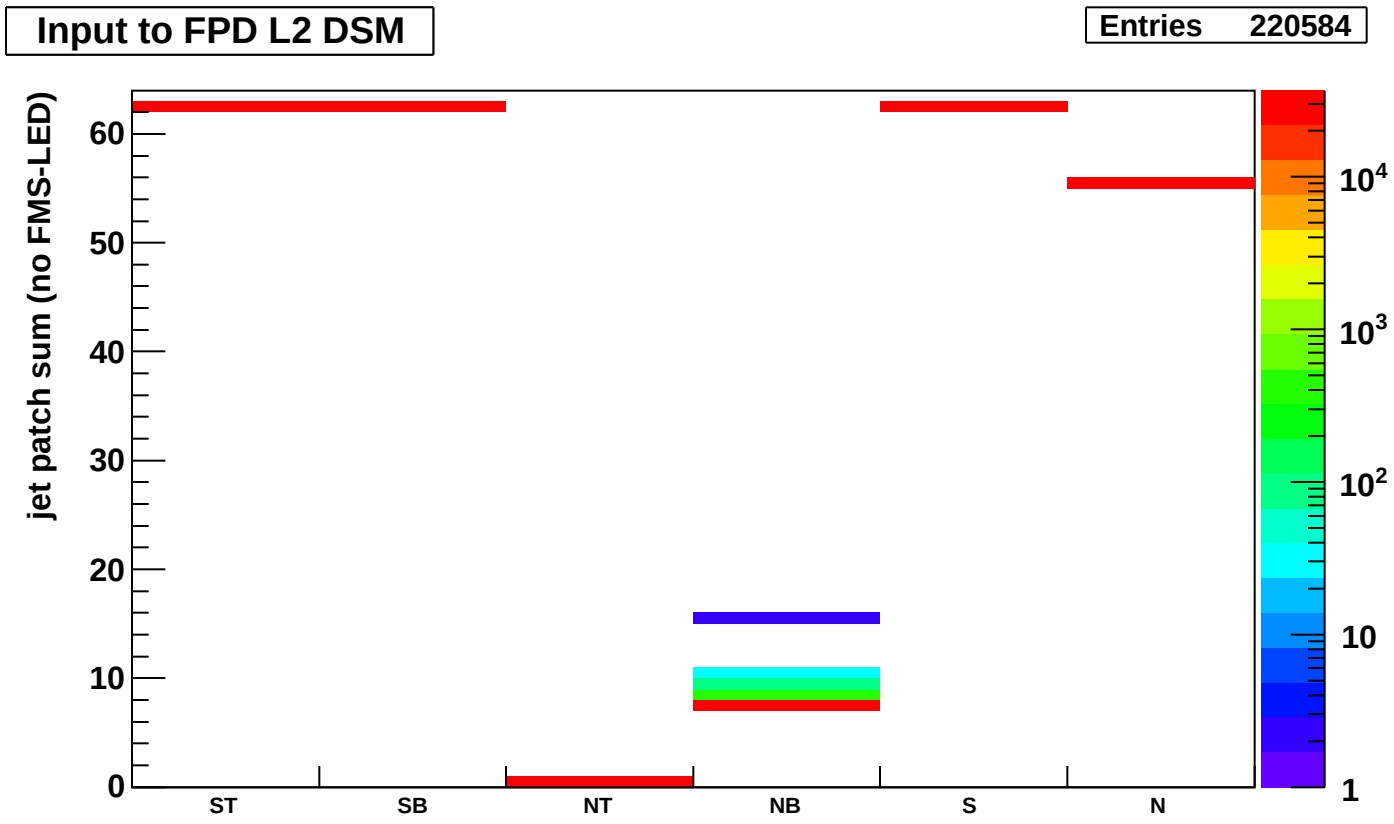

Input to FPD L2 DSM
Entries 294834
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

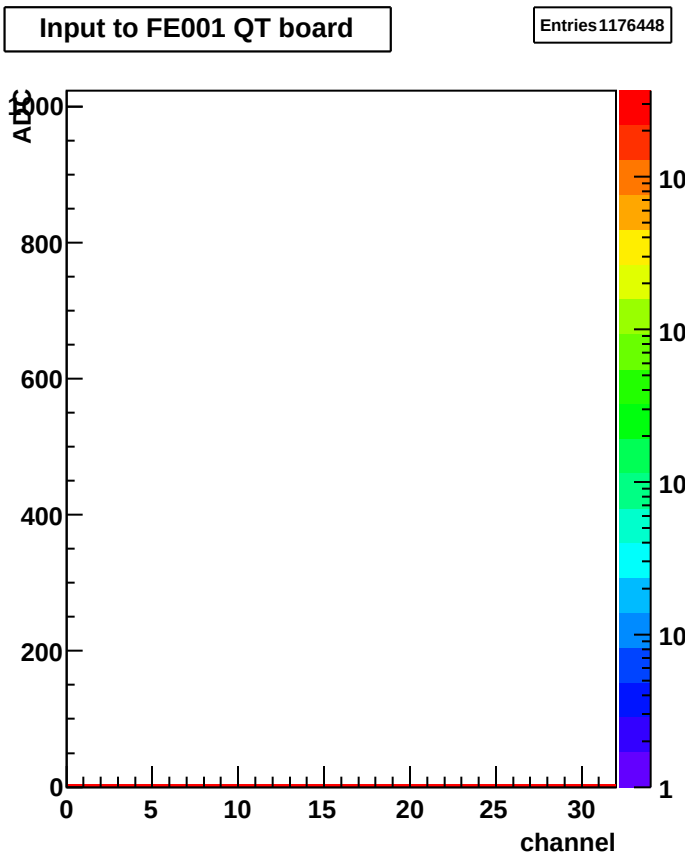

Input to FPD L2 DSM
Entries 110292
CL bits
36764
36764
36764
SMALL
LARGE-S
LARGE-N

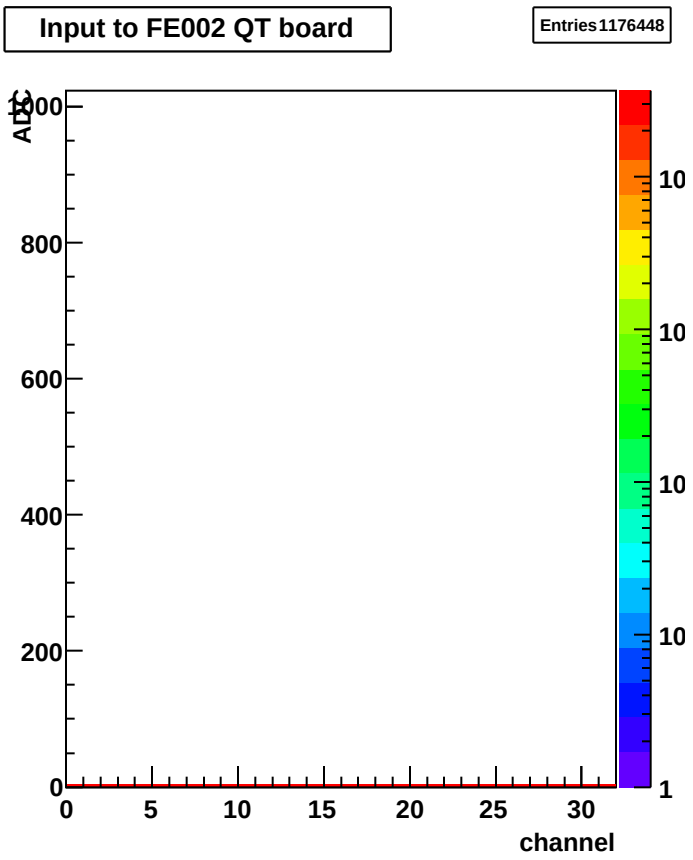

Input to FPD L2 DSM
Entries 110292
CL bits - simulated
36764
36764
36764
SMALL
LARGE-S
LARGE-N

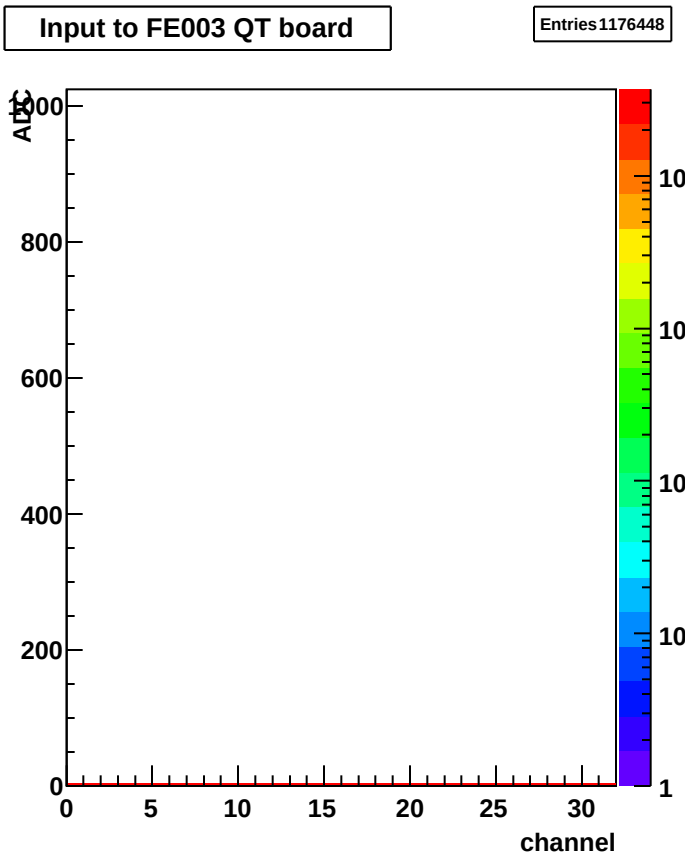

Input to FPD L2 DSM
Entries 110292
HT bits
7
31
151
36575
36764
36764
SMALL
LARGE-S
LARGE-N

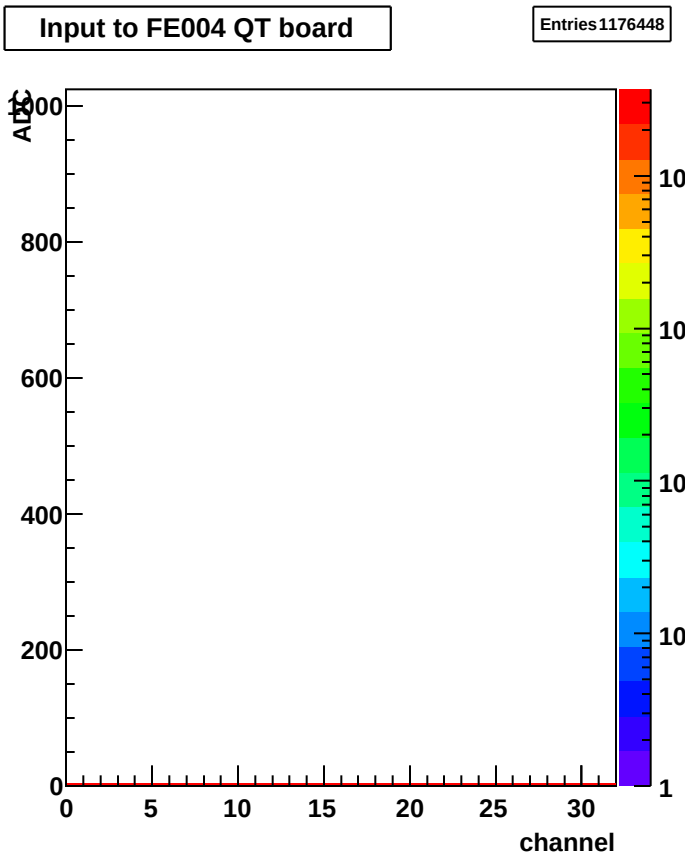

Input to FPD L2 DSM
Entries 73717
HT bits - simulated
7
31
151
36764
36764
SMALL
LARGE-S
LARGE-N

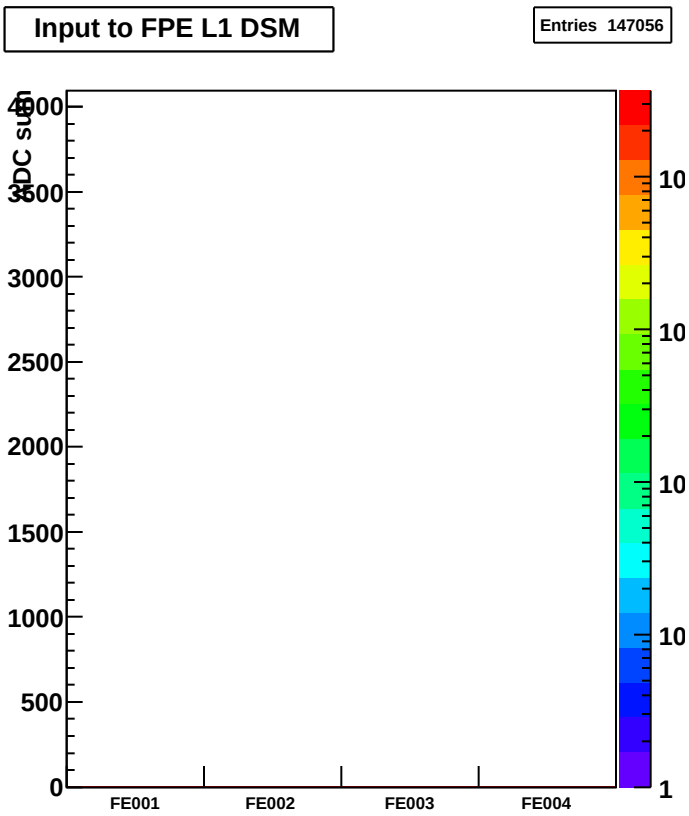

Input to FPD L2 DSM
Entries 220584
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

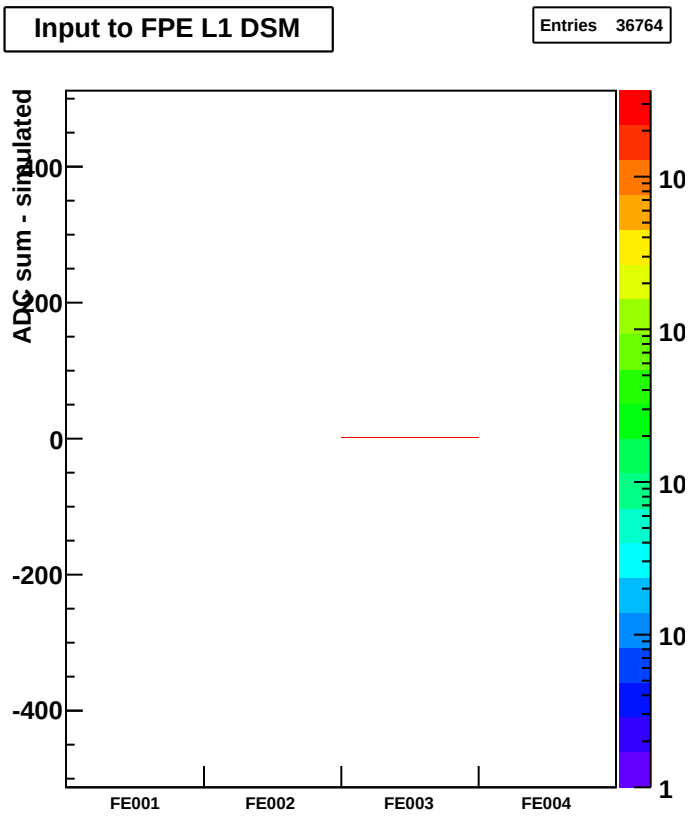

Input to FE001 QT board
Entries 1176448
ADC
channel

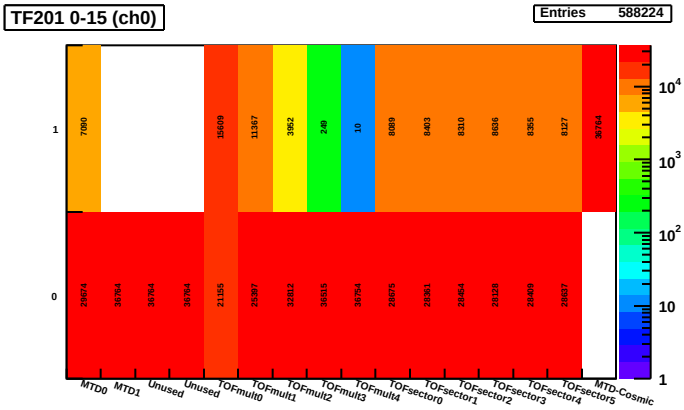

Input to FE002 QT board
Entries 1176448
ADC
channel

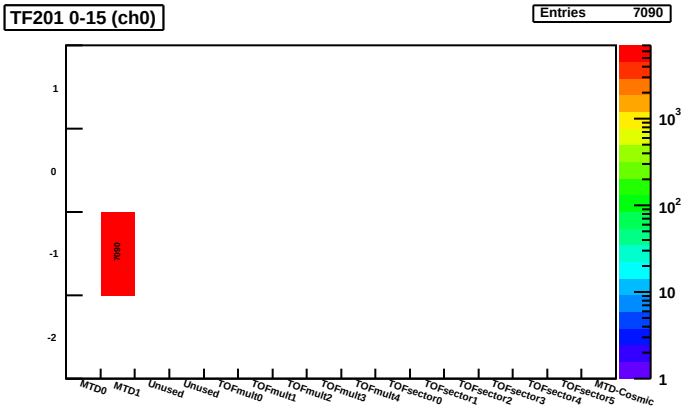

Input to FE003 QT board
Entries 1176448
ADC
channel

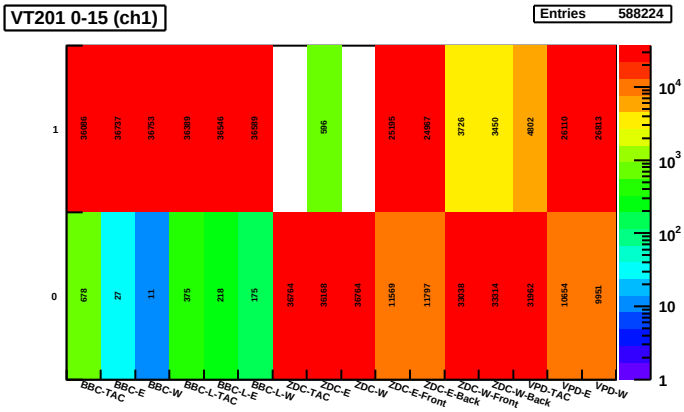

Input to FE004 QT board
Entries 1176448
ADC
channel

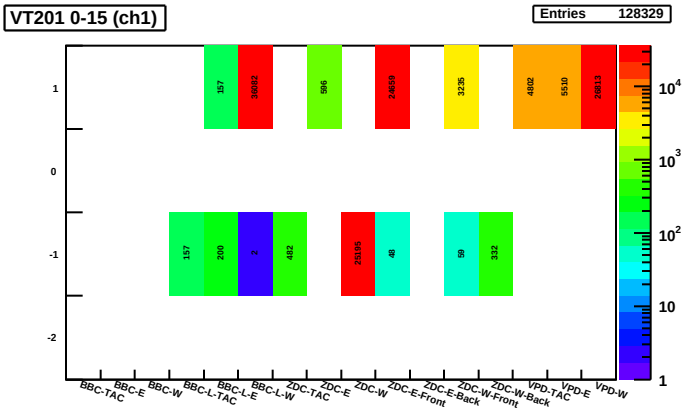

Input to FPE L1 DSM
Entries 147056
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 36764
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 588224
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 7090
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 588224
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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Entries 128329
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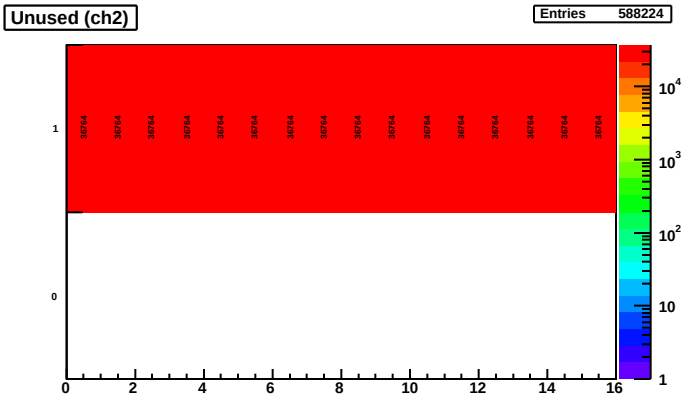
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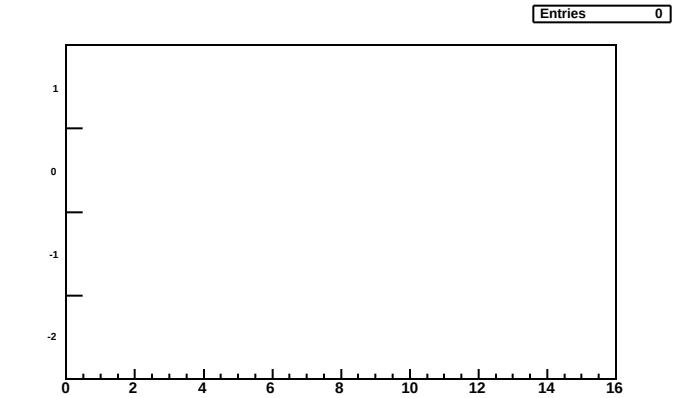
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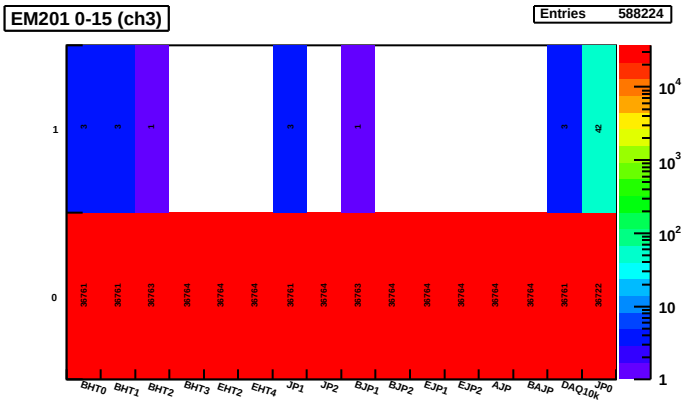
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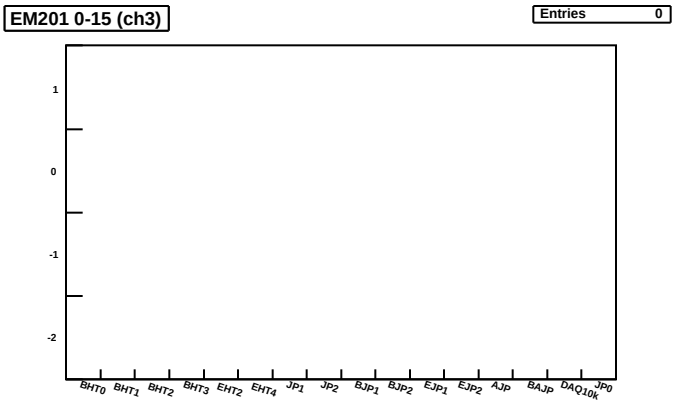
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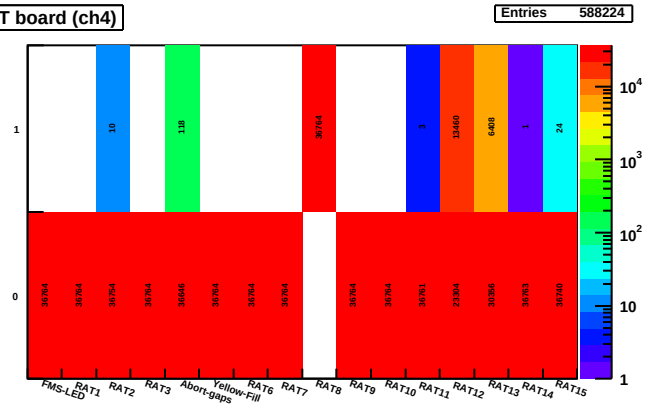
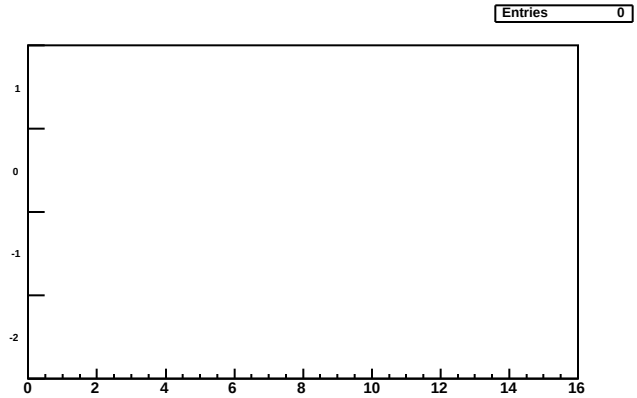
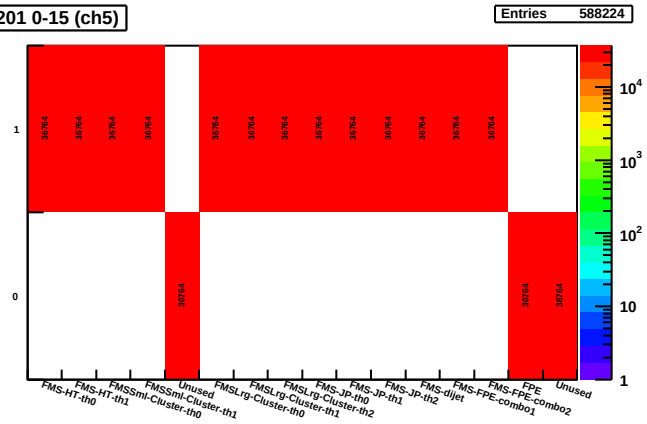
RAT board (ch4)

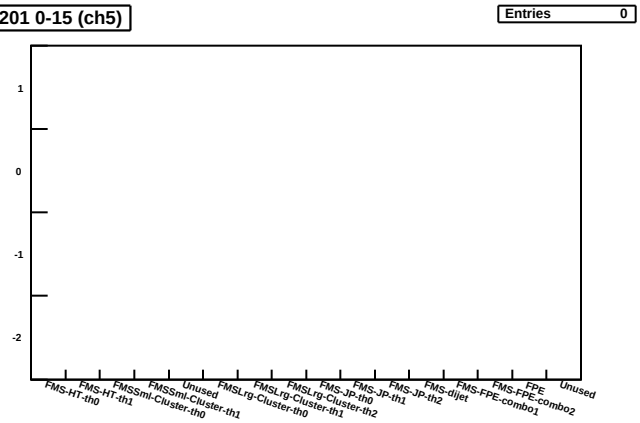




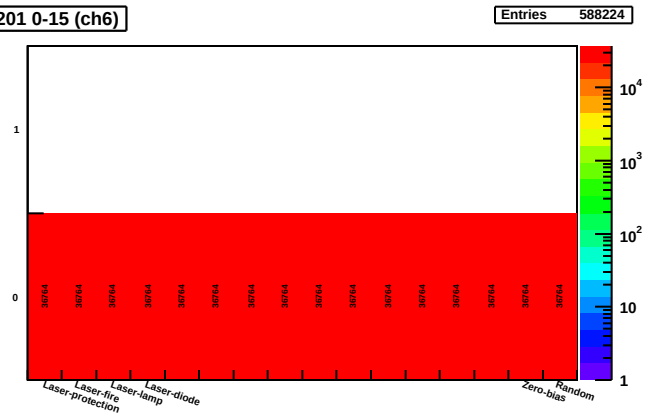
FP201 0-15 (ch5)

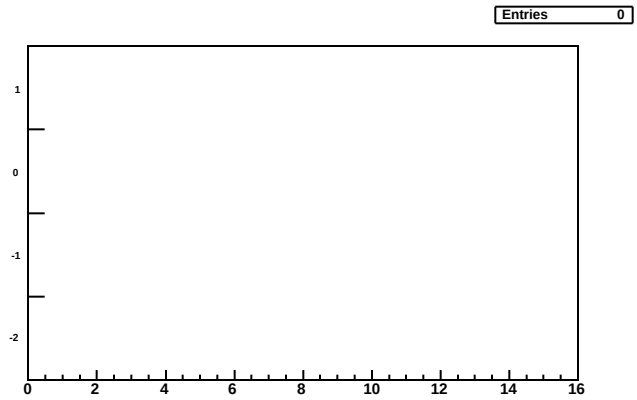
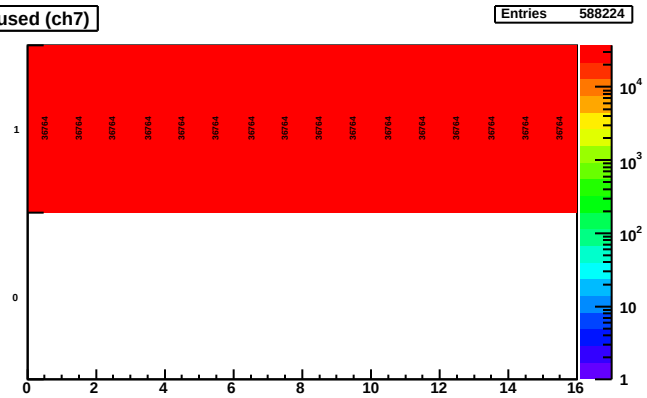
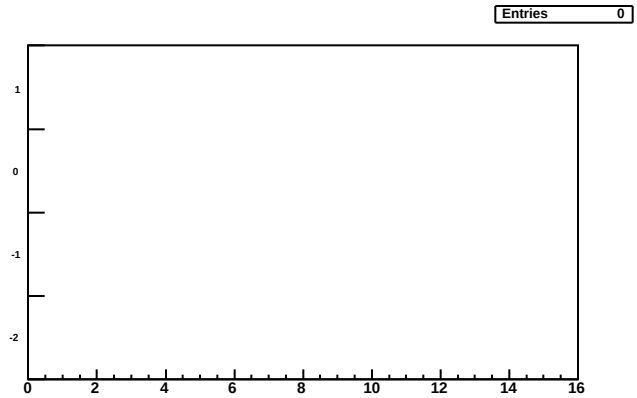


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)