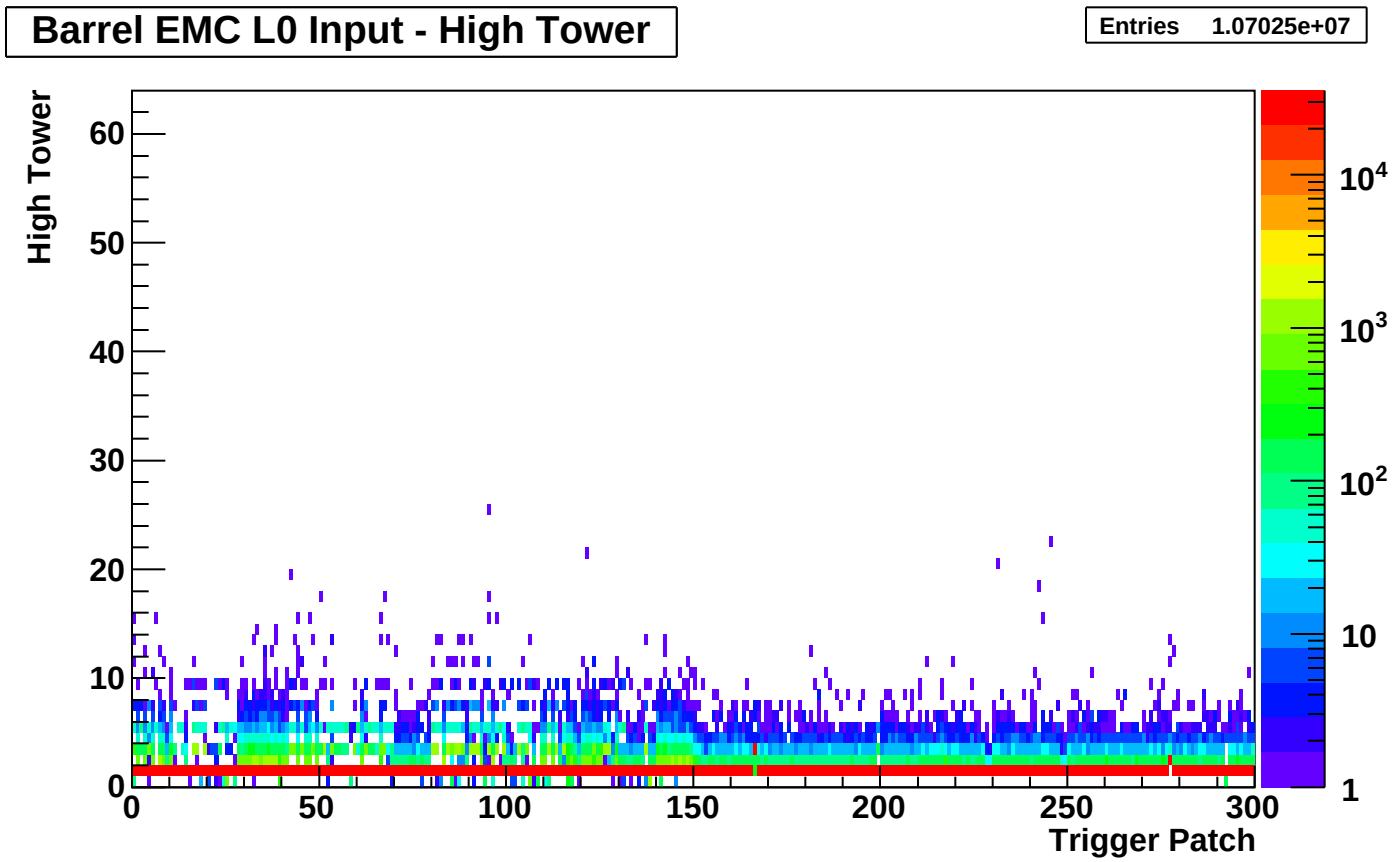
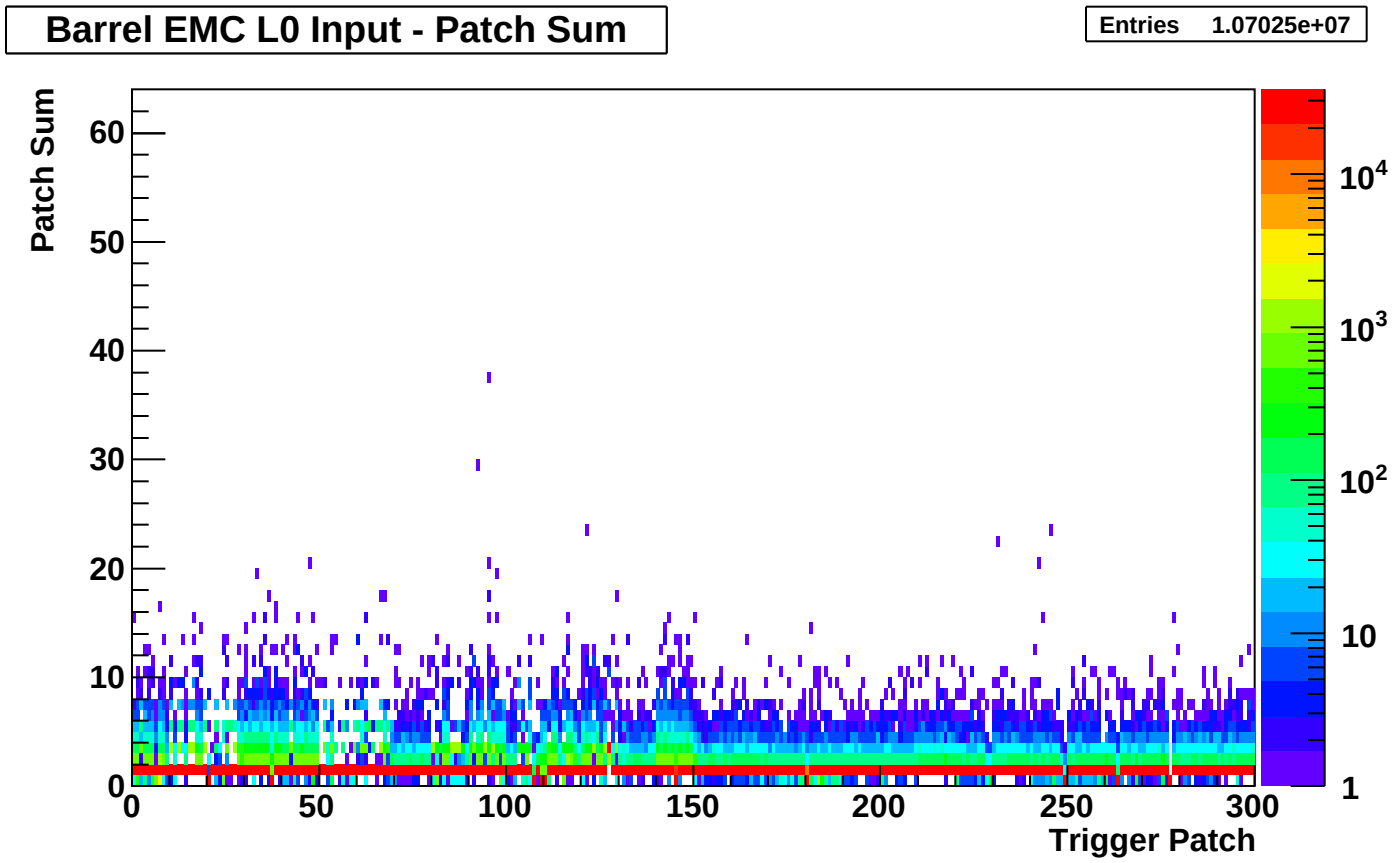
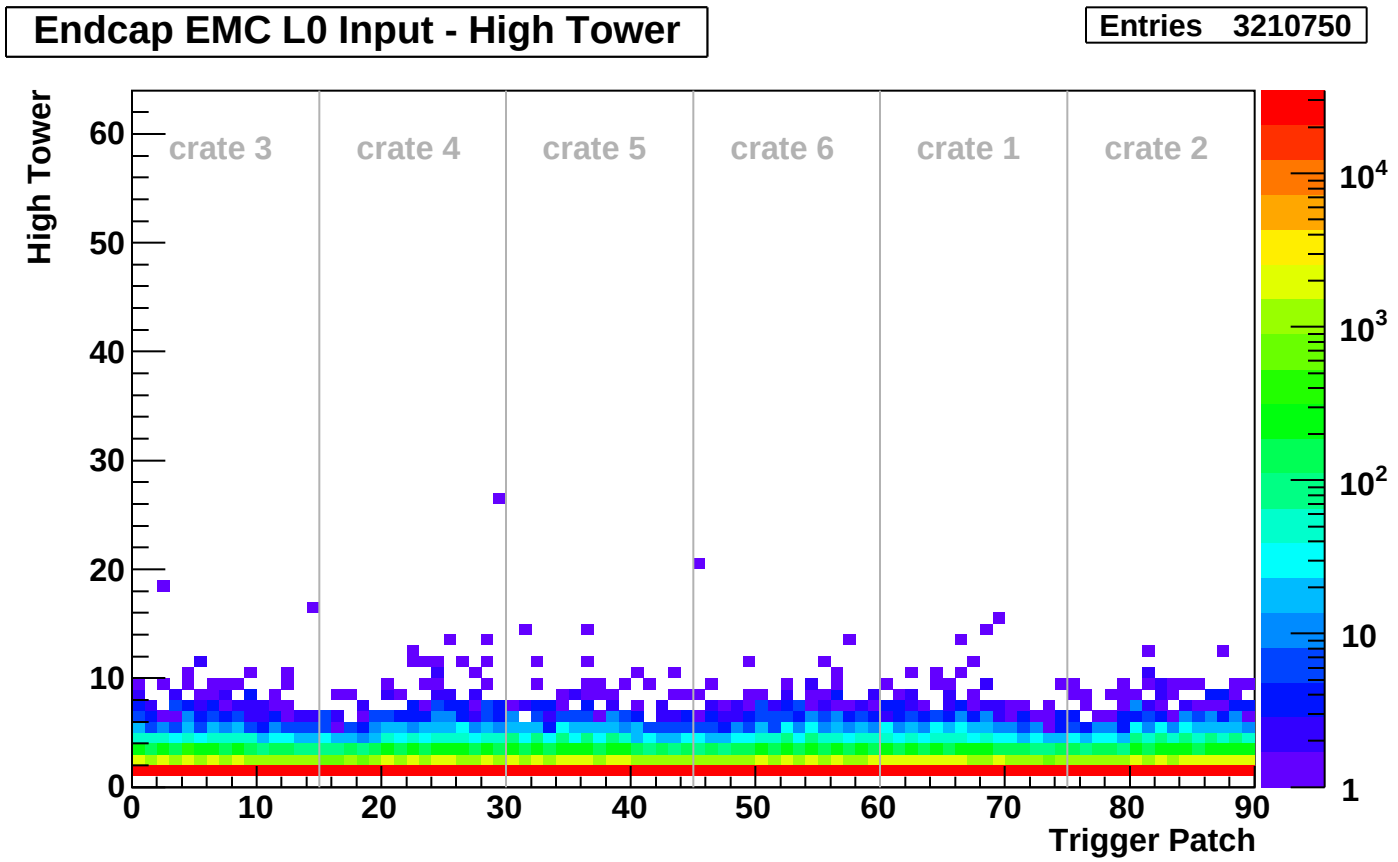
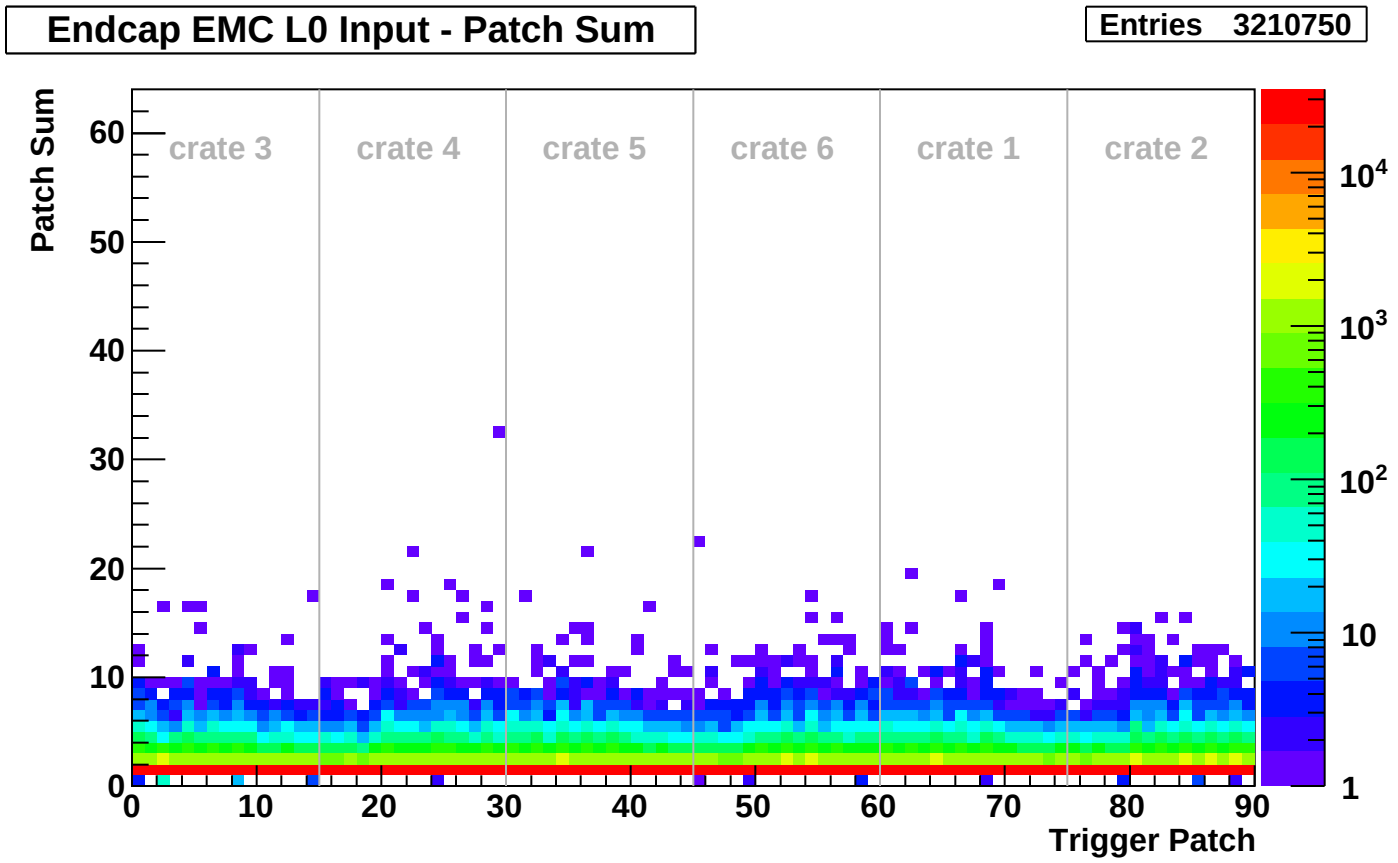
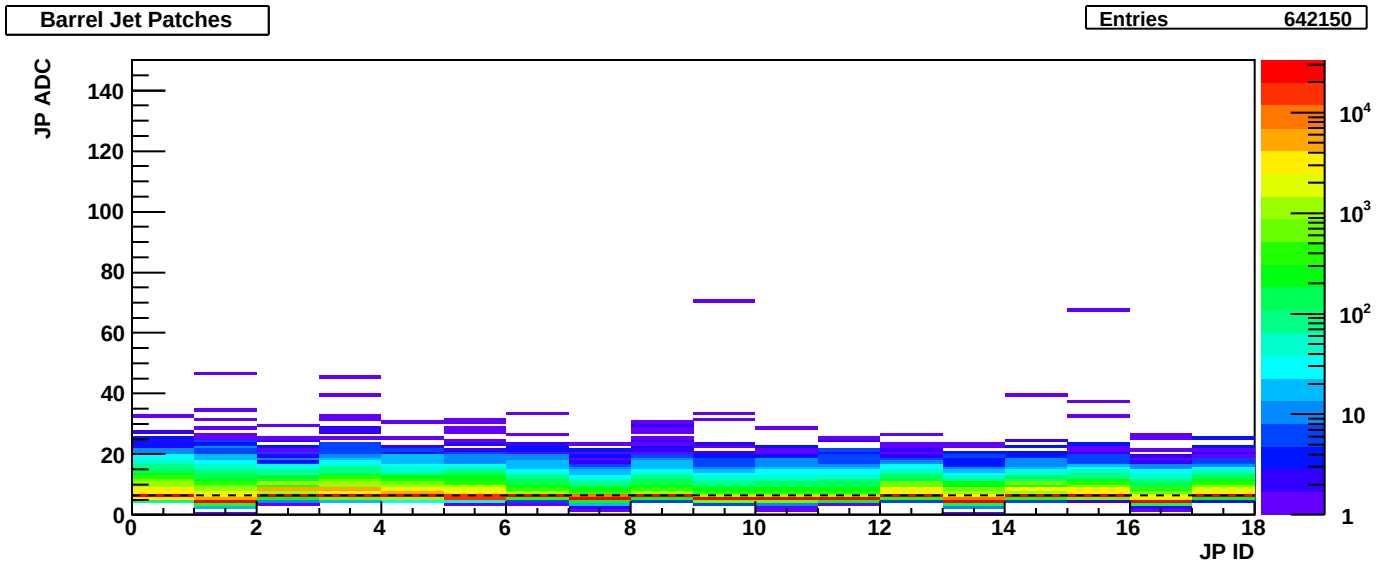
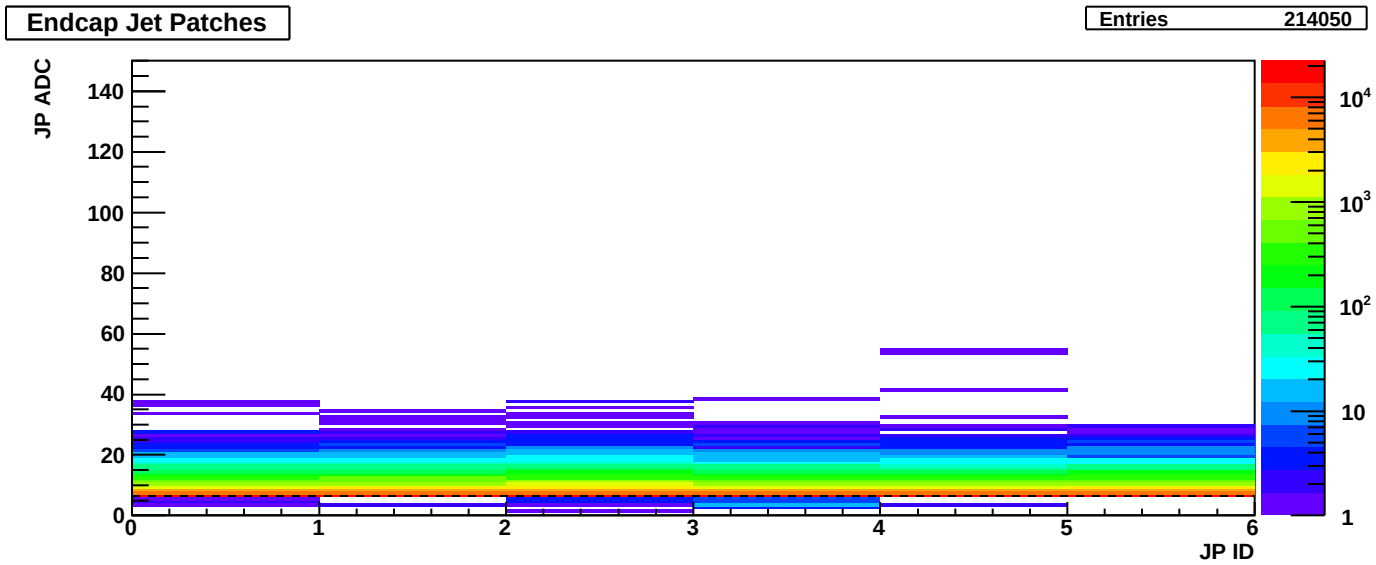

Barrel EMC L0 Input - High Tower
Entries 1.07025e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

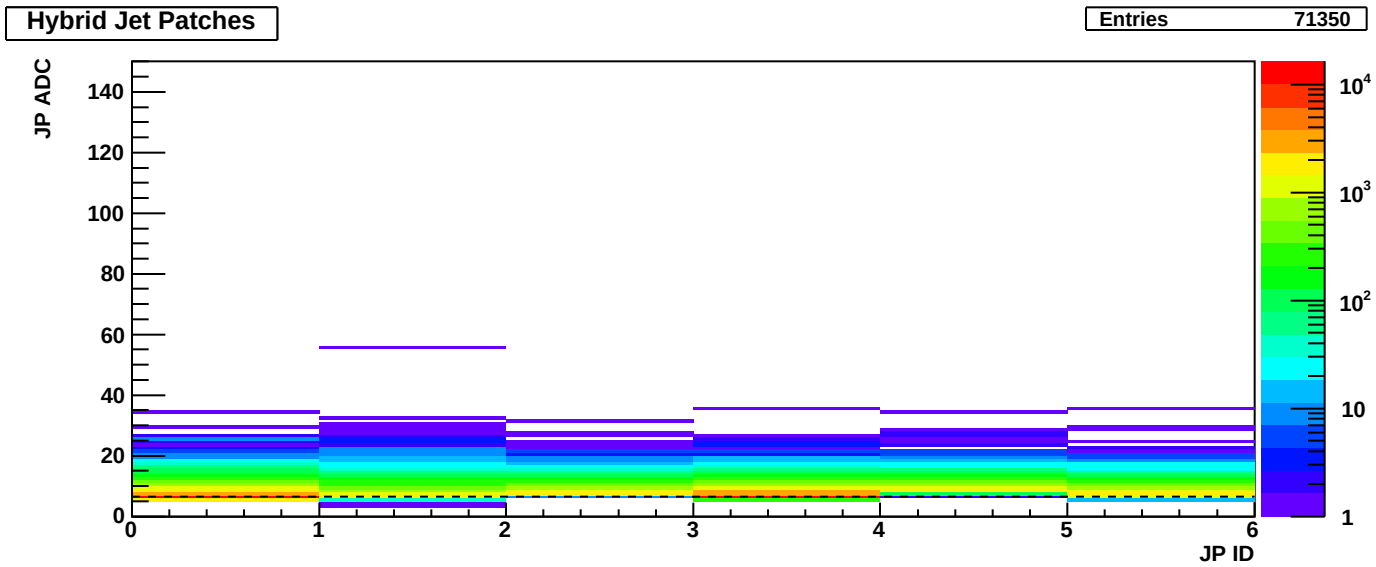

Barrel EMC L0 Input - Patch Sum
Entries 1.07025e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

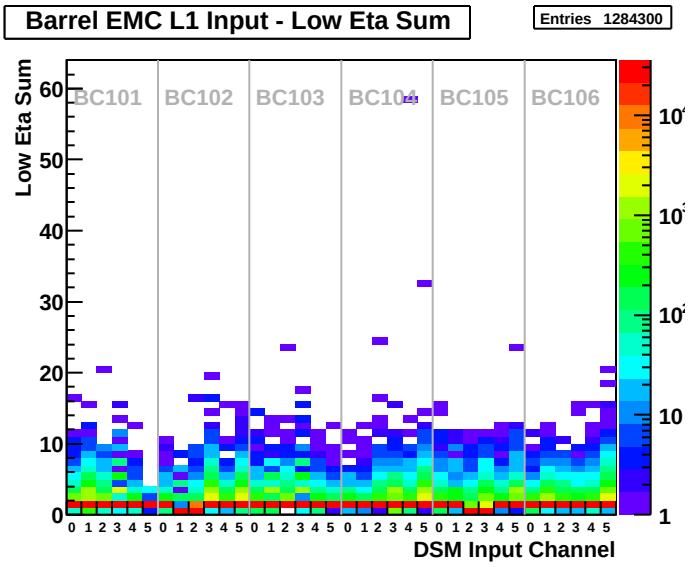

Endcap EMC L0 Input - High Tower
Entries 3210750
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

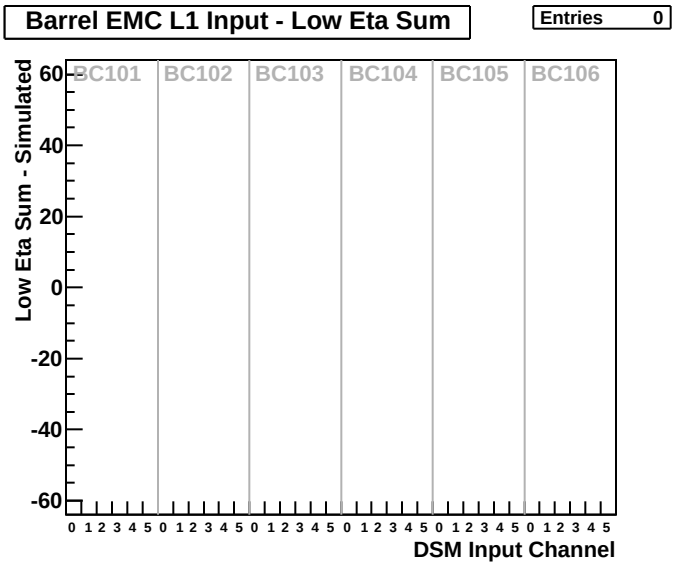

Endcap EMC L0 Input - Patch Sum
Entries 3210750
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

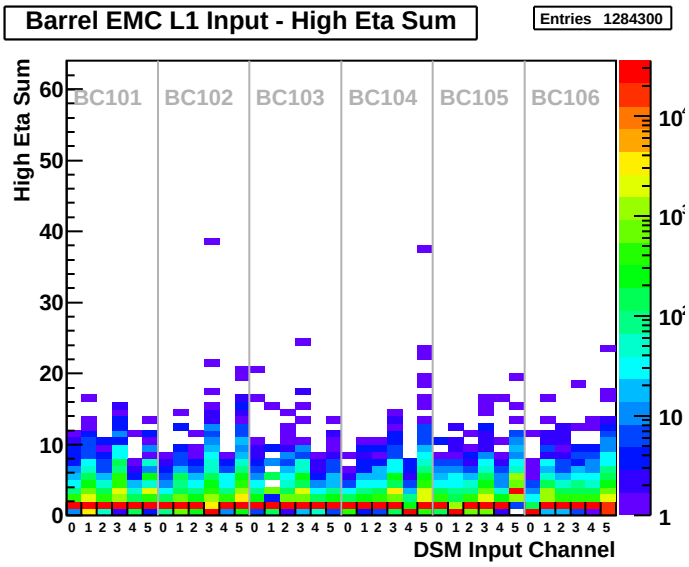

Barrel Jet Patches
Entries 642150
JP ADC
JP ID

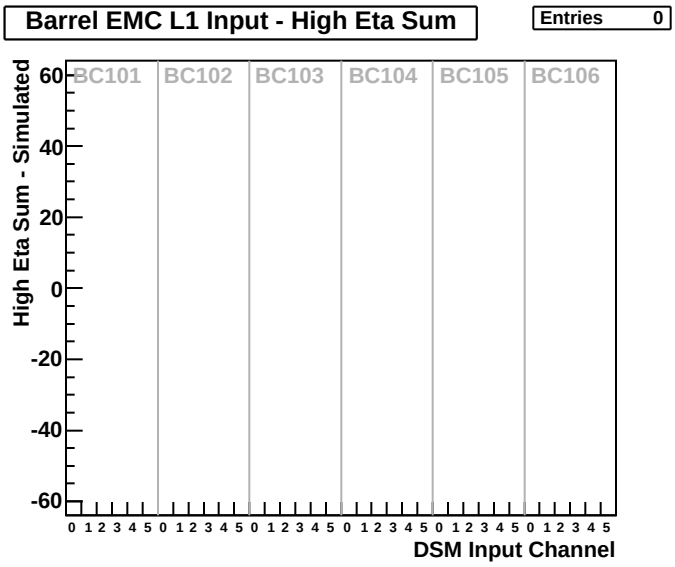

Endcap Jet Patches
Entries 214050
JP ADC
JP ID

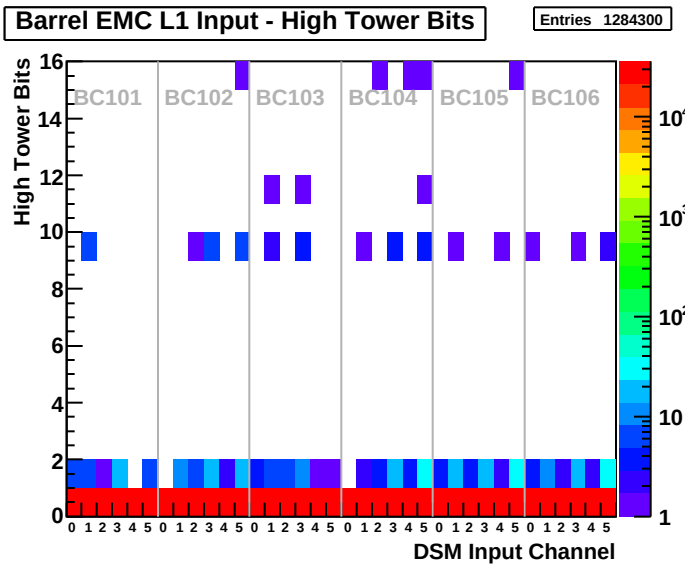

Hybrid Jet Patches
Entries 71350
JP ADC
JP ID

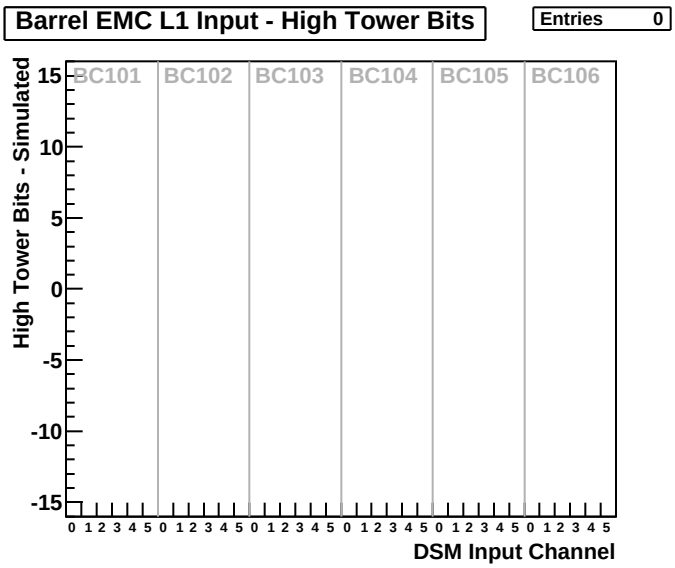

Barrel EMC L1 Input - Low Eta Sum
Entries 1284300
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

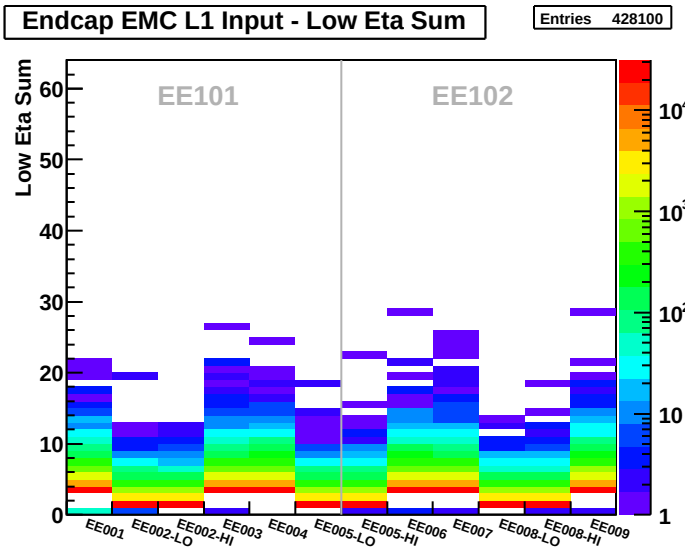

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

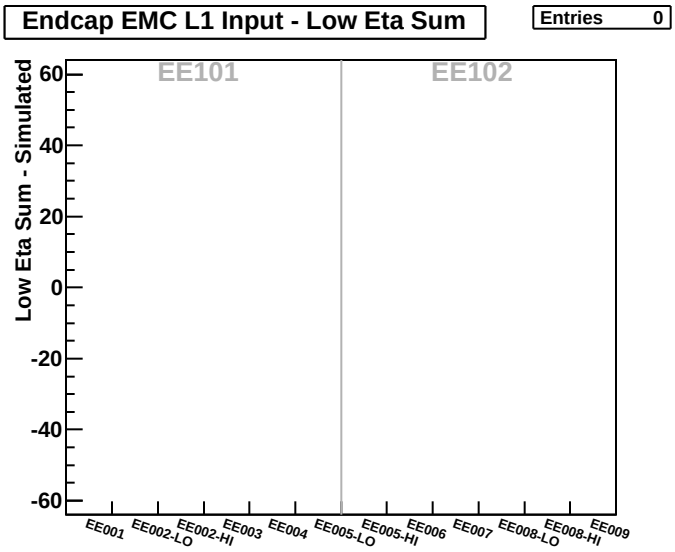

Barrel EMC L1 Input - High Eta Sum
Entries 1284300
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

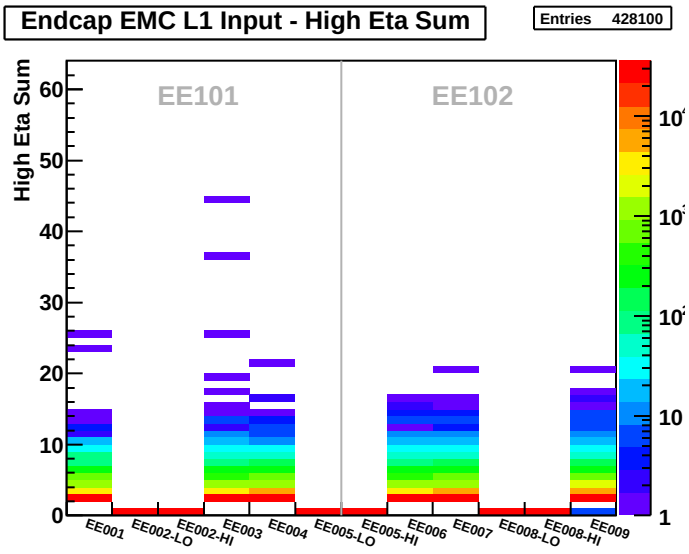

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

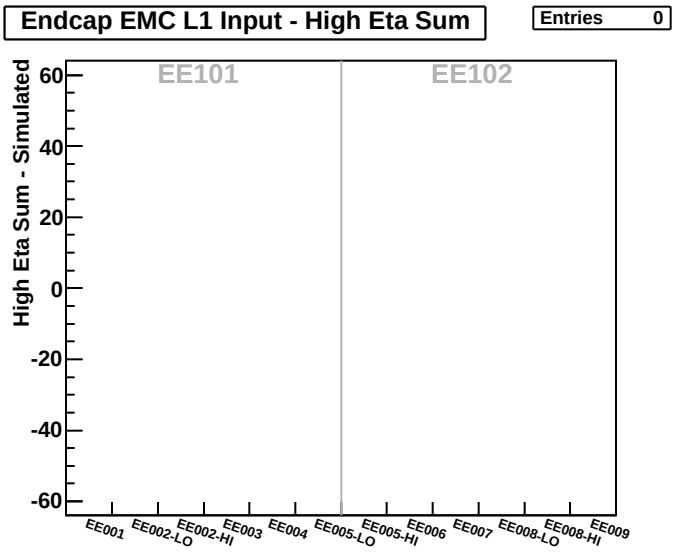

Barrel EMC L1 Input - High Tower Bits
Entries 1284300
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

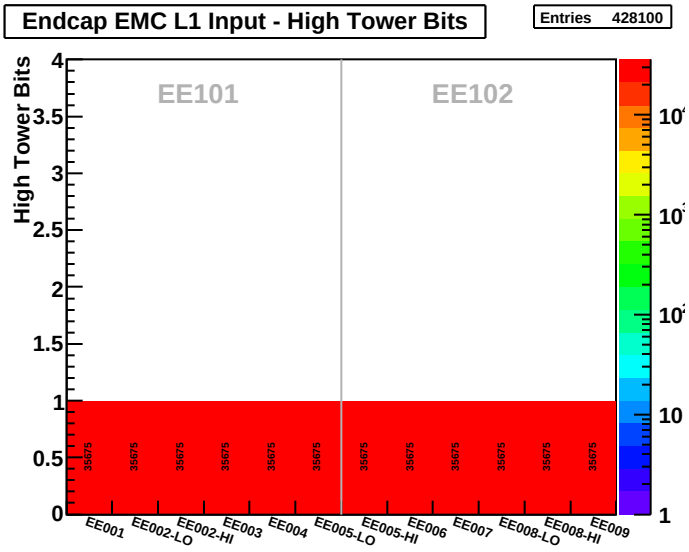

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

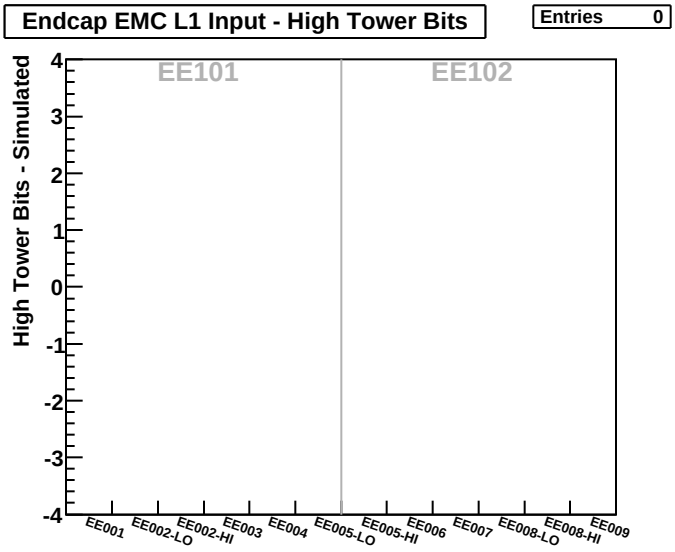

Endcap EMC L1 Input - Low Eta Sum
Entries 428100
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

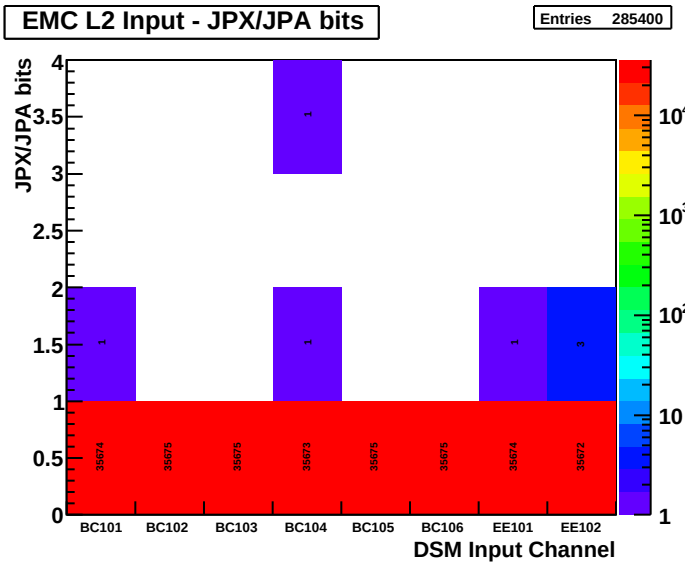

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

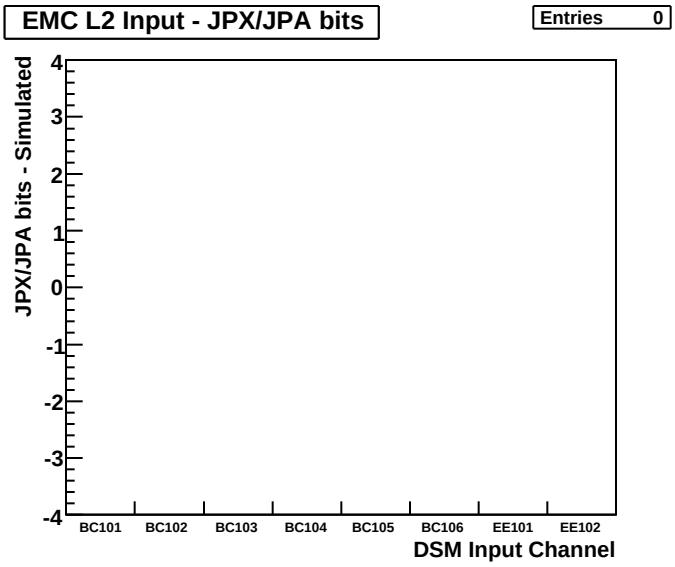

Endcap EMC L1 Input - High Eta Sum
Entries 428100
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

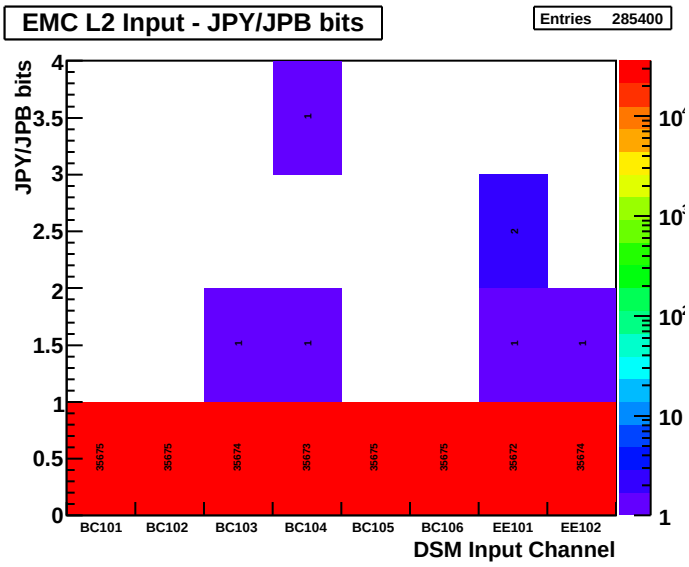

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

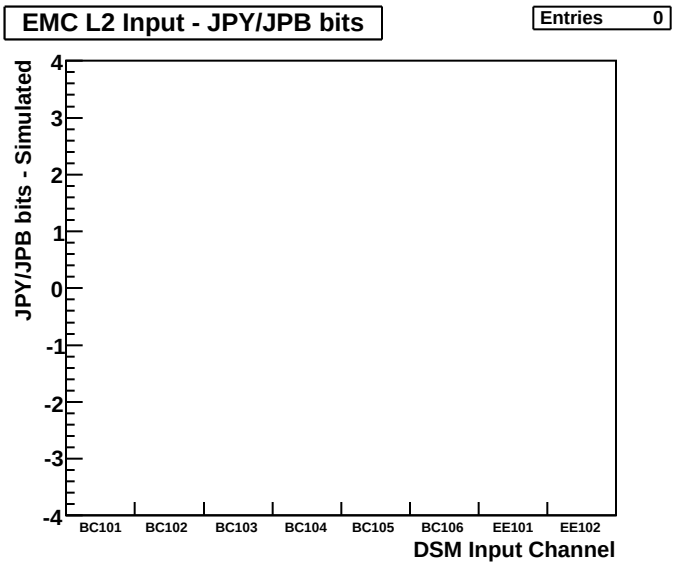

Endcap EMC L1 Input - High Tower Bits
Entries 428100
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

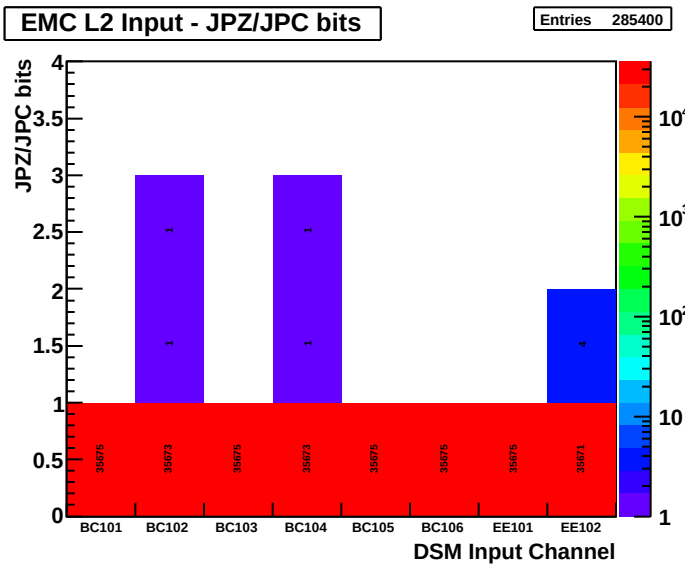

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

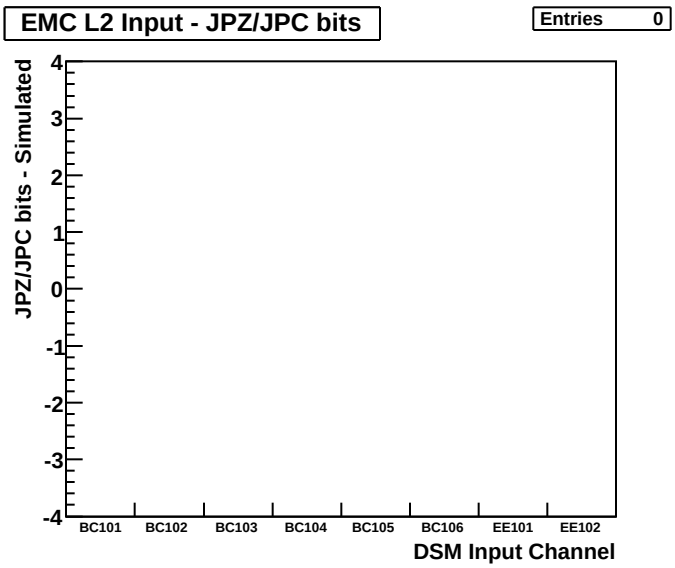

EMC L2 Input - JPX/JPA bits
Entries 285400
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

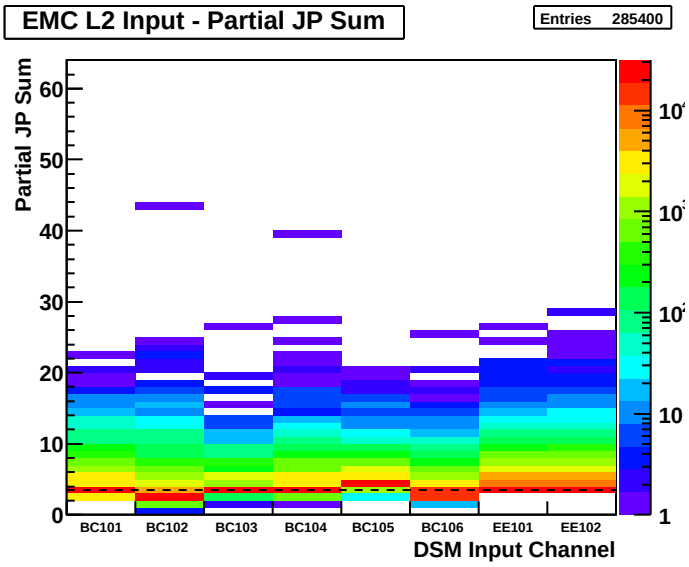

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

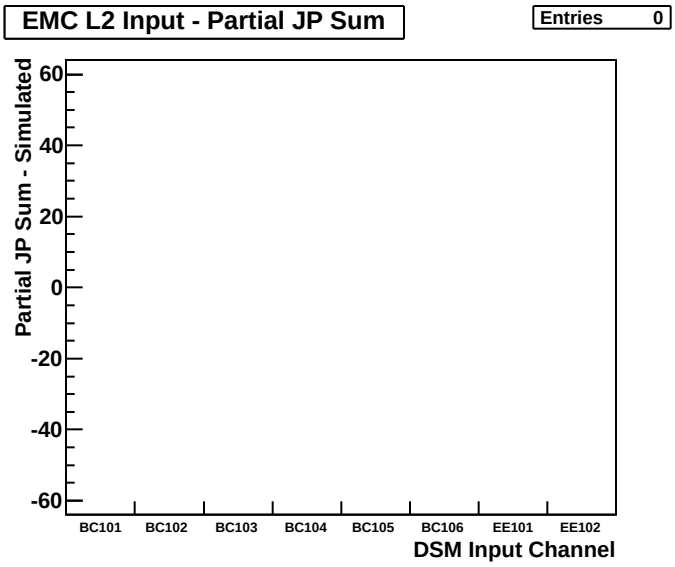

EMC L2 Input - JPY/JPB bits
Entries 285400
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

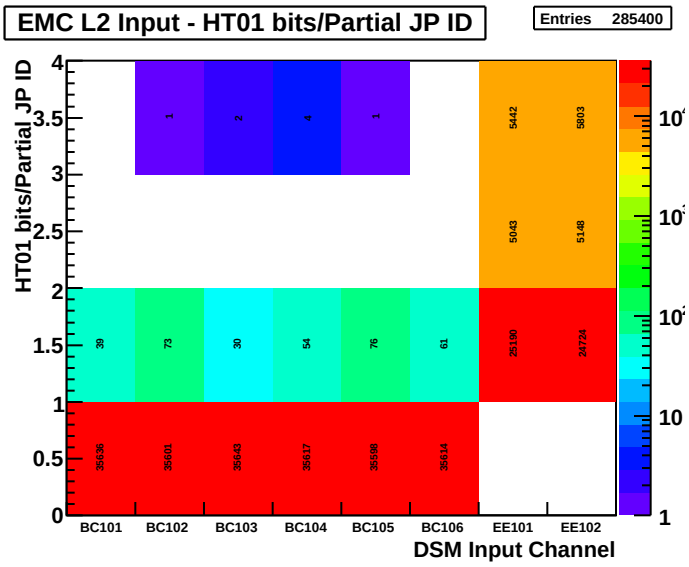

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

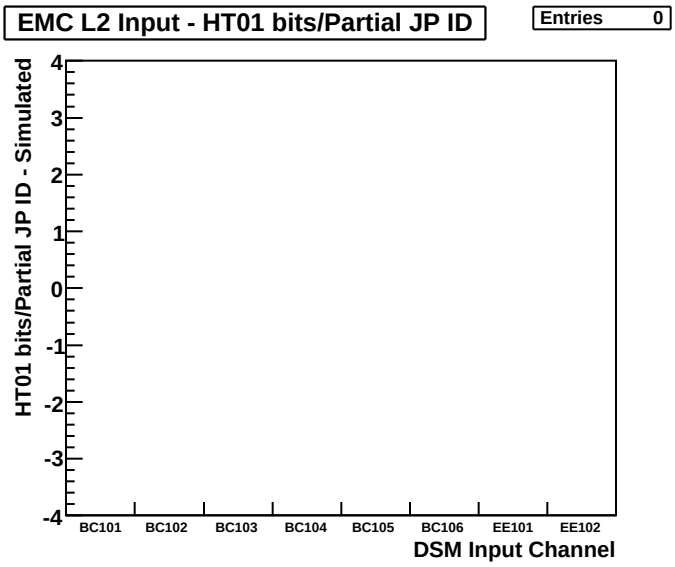

EMC L2 Input - JPZ/JPC bits
Entries 285400
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

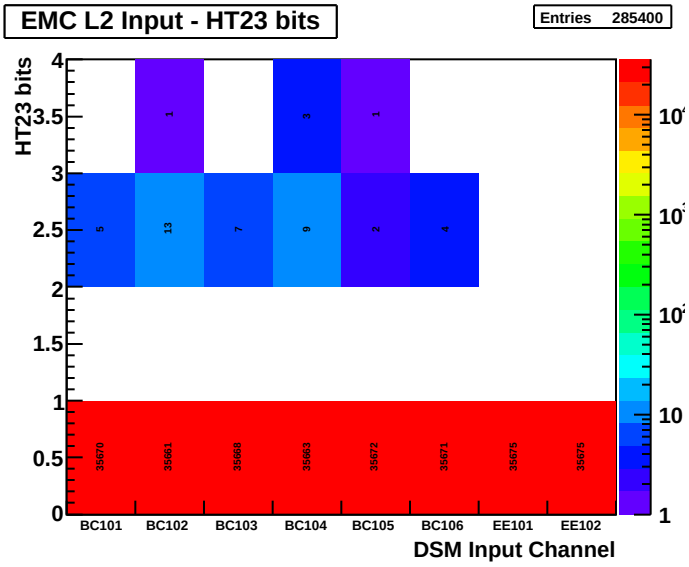

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

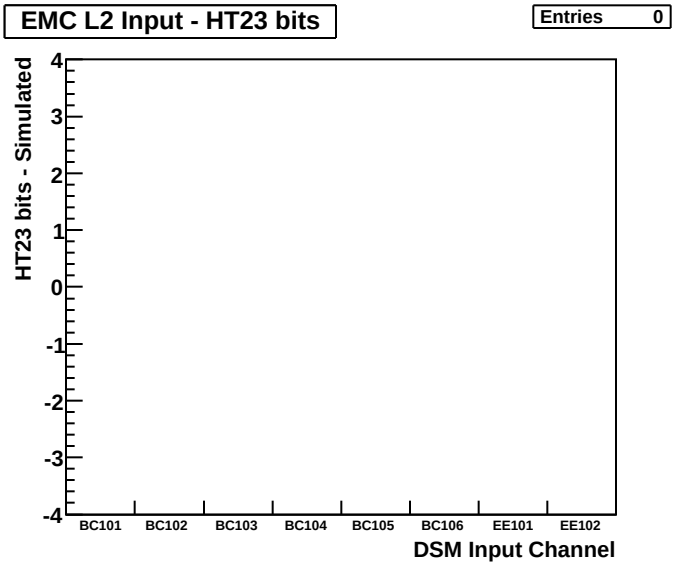

EMC L2 Input - Partial JP Sum
Entries 285400
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

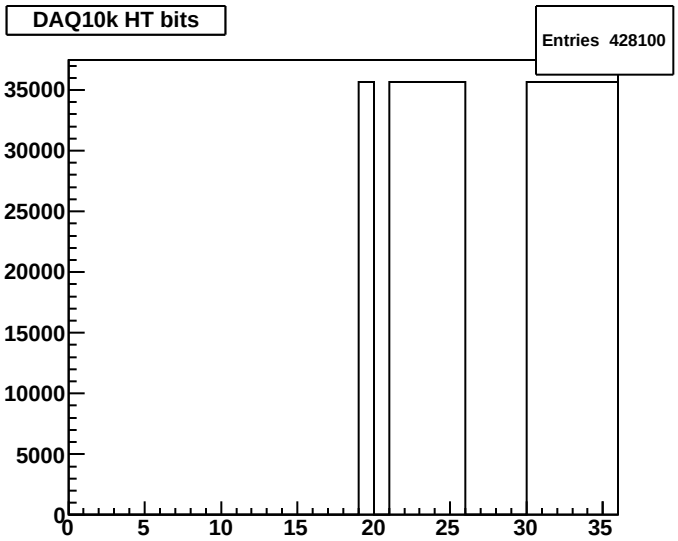

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

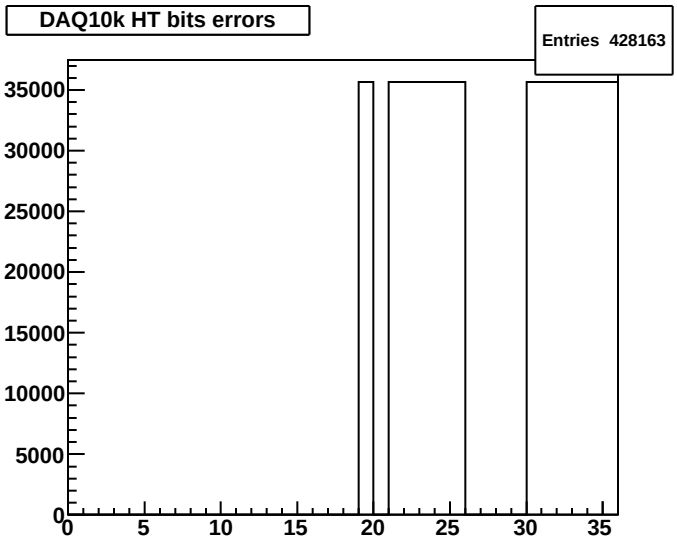

EMC L2 Input - HT01 bits/Partial JP ID
Entries 285400
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

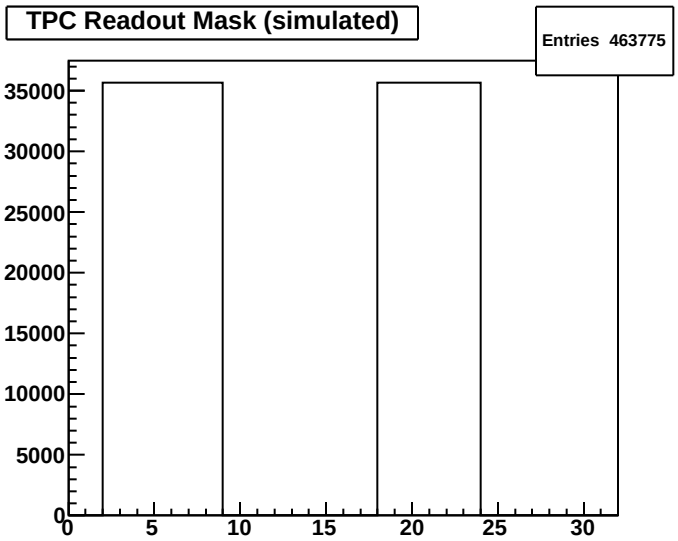

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

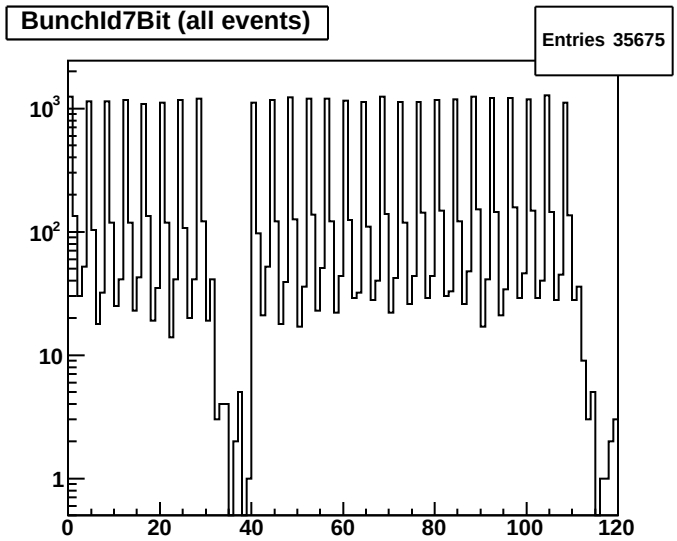

EMC L2 Input - HT23 bits
Entries 285400
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

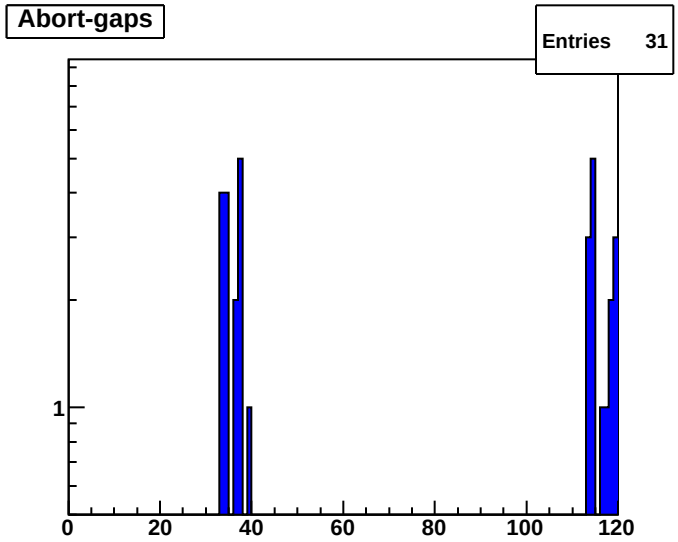

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

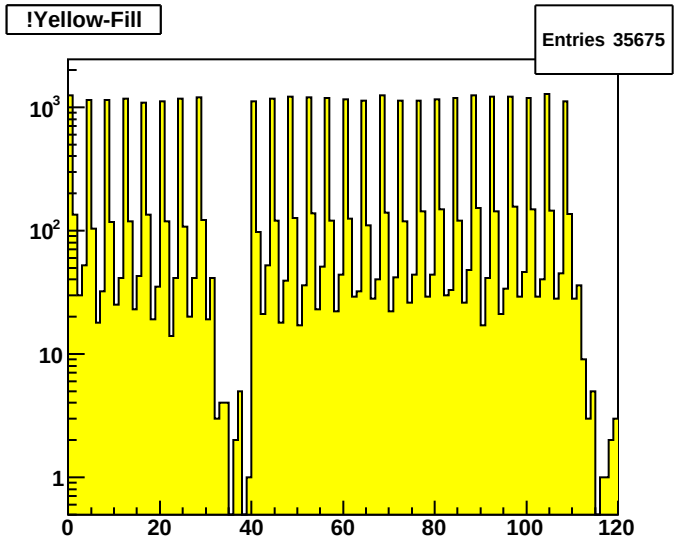

DAQ10k HT bits
Entries 428100
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

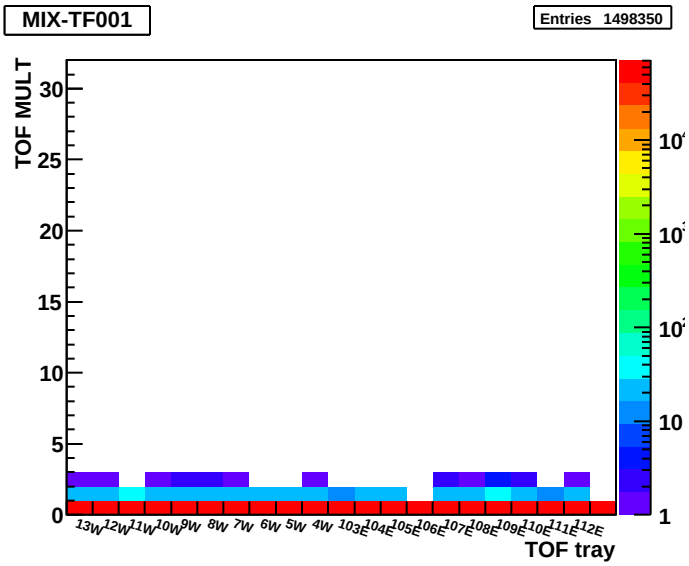

DAQ10k HT bits errors
Entries 428163
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

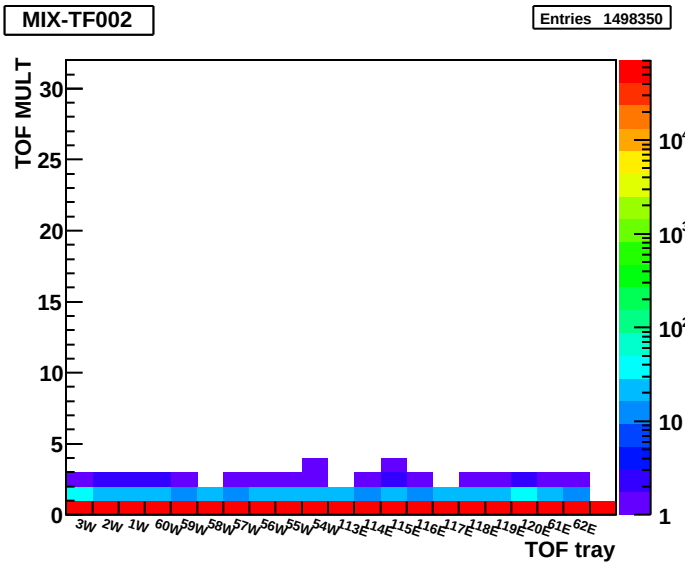

TPC Readout Mask (simulated)
Entries 463775
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

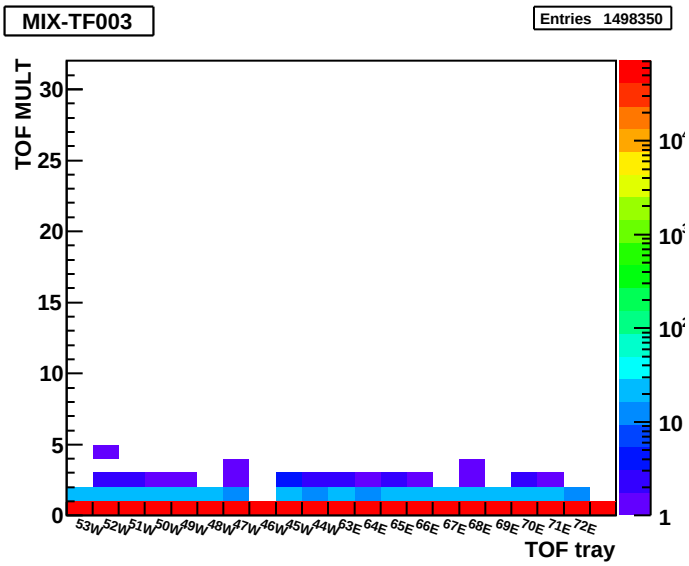

BunchId7Bit (all events)
Entries 35675
10^3
10^2
10
1
0 20 40 60 80 100 120

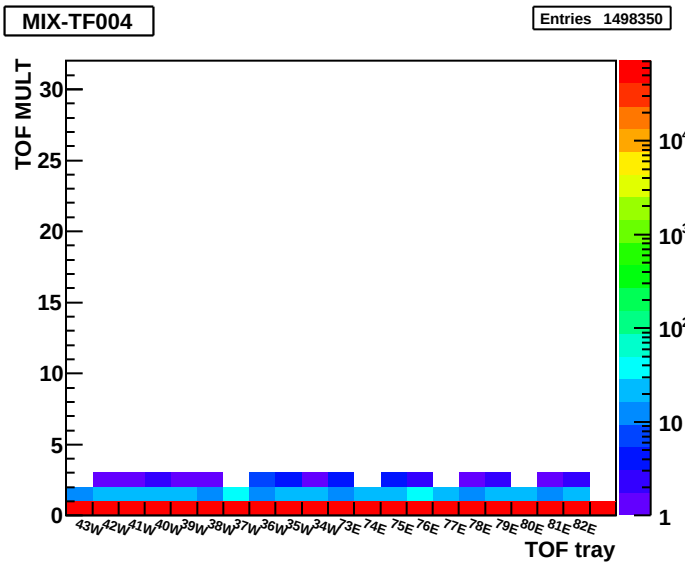

Abort-gaps
Entries 31
1
0 20 40 60 80 100 120

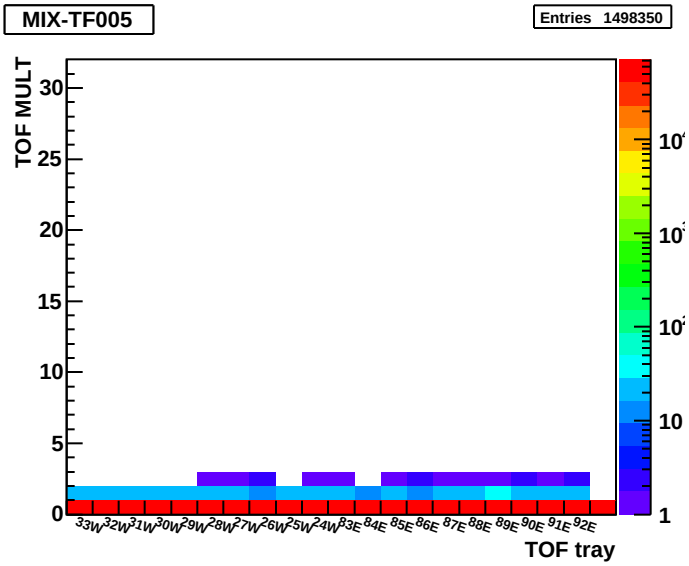

!Yellow-Fill
Entries 35675
10^3
10^2
10
1
0 20 40 60 80 100 120

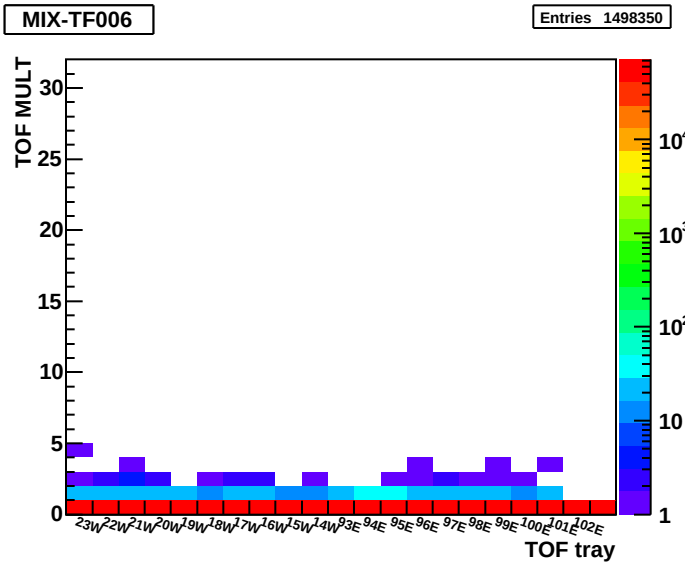

MIX-TF001
Entries 1498350
TOF MULT
TOF tray

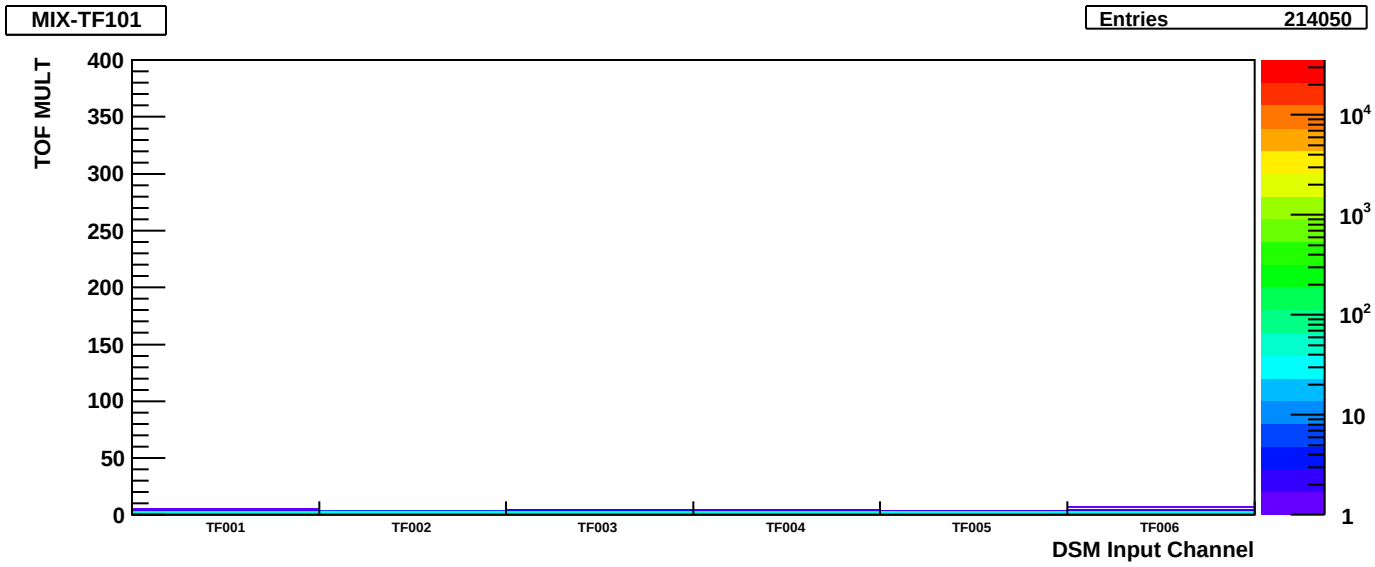

MIX-TF002
Entries 1498350
TOF MULT
TOF tray

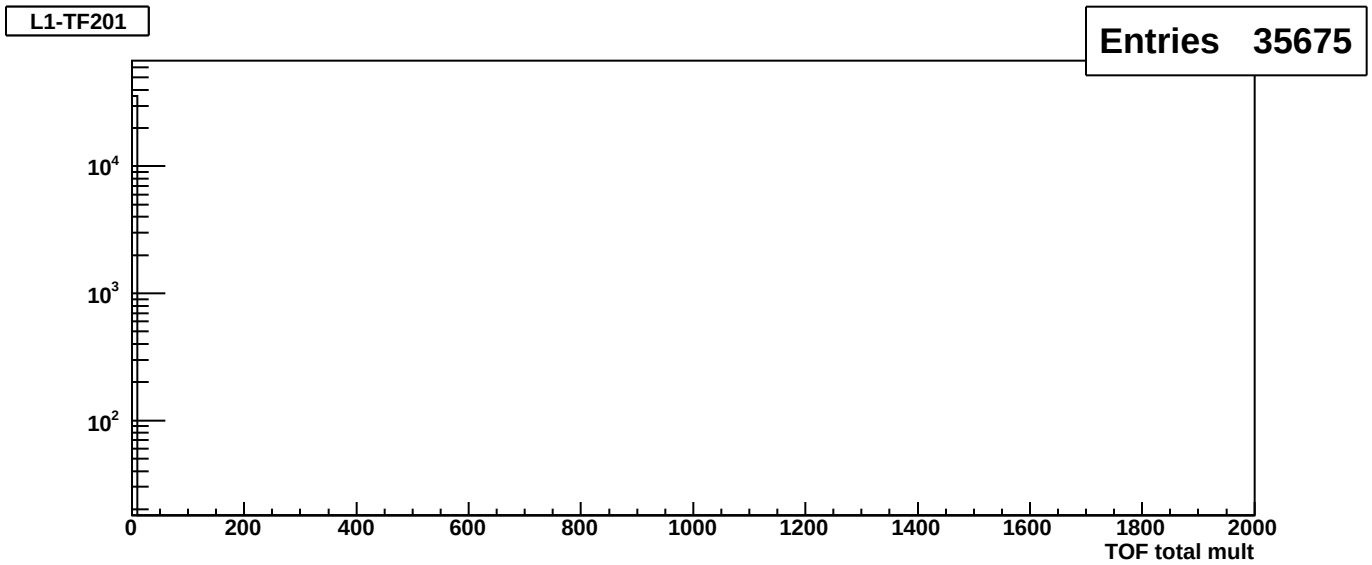

MIX-TF003
Entries 1498350
TOF MULT
TOF tray

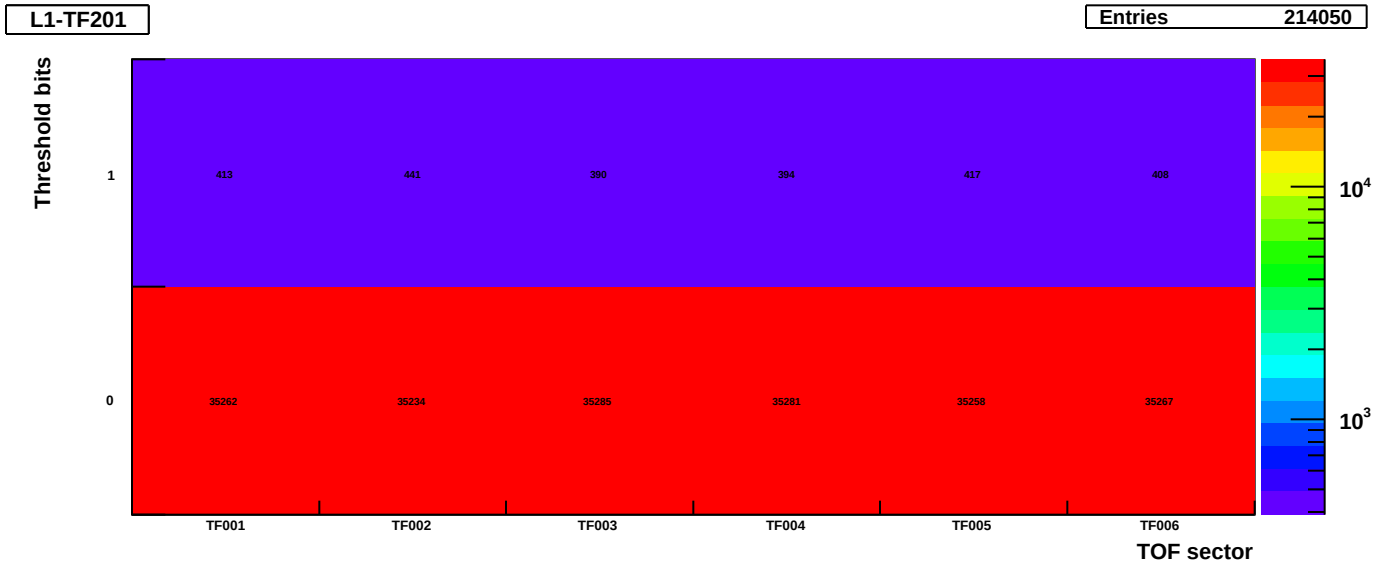

MIX-TF004
Entries 1498350
TOF MULT
TOF tray

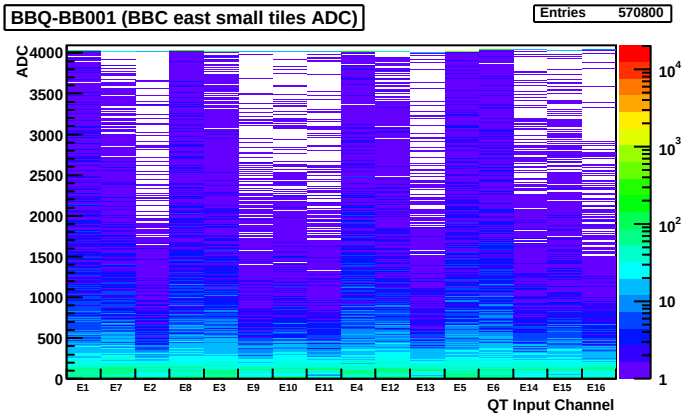

MIX-TF005
Entries 1498350
TOF MULT
TOF tray

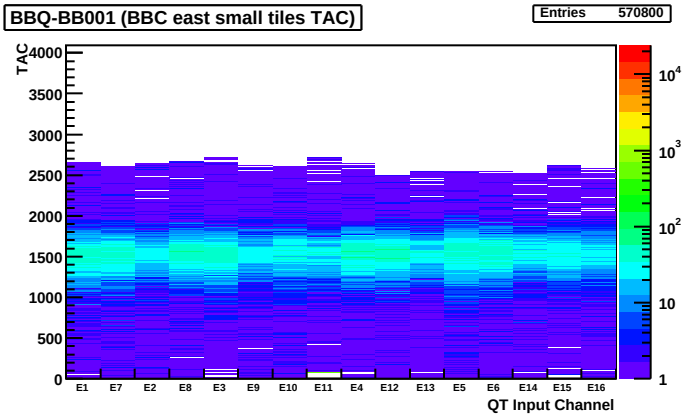

MIX-TF006
Entries 1498350
TOF MULT
TOF tray

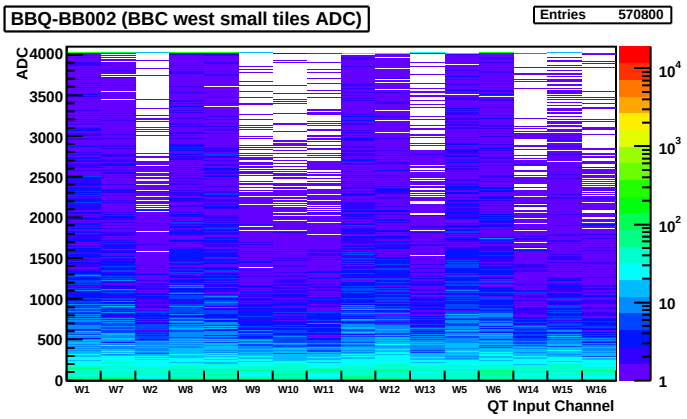

MIX-TF101
Entries 214050
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

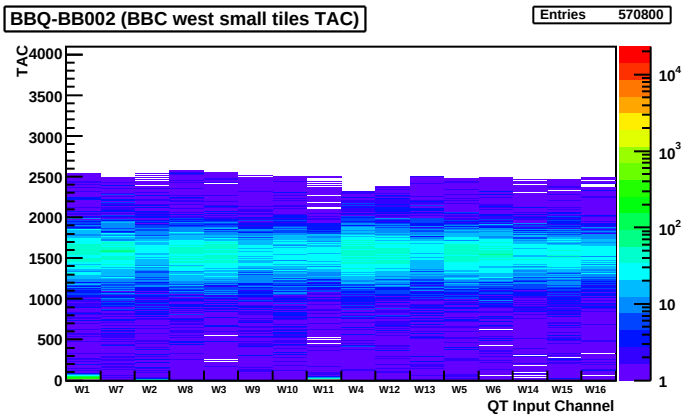

L1-TF201
Entries 35675
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

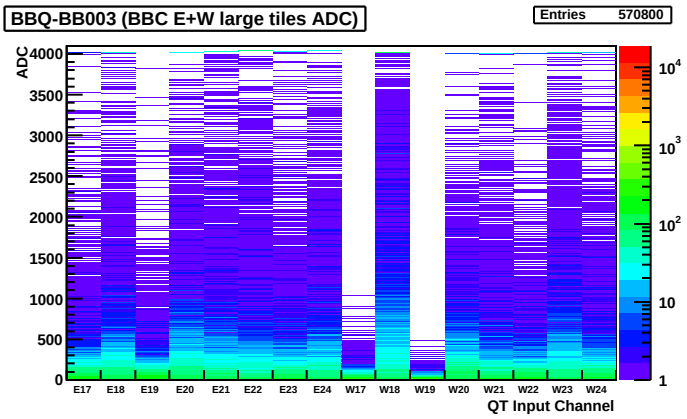

L1-TF201
Entries 214050
Threshold bits
1
0
413
441
390
394
417
408
35262
35234
35285
35281
35258
35267
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

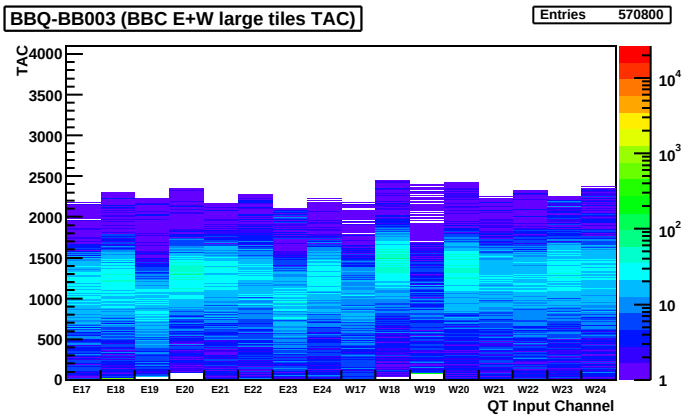

BBQ-BB001 (BBC east small tiles ADC)
Entries 570800
ADC
QT Input Channel

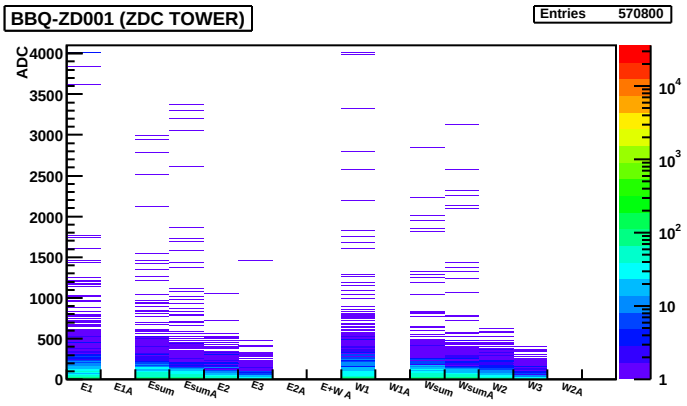

BBQ-BB001 (BBC east small tiles TAC)
Entries 570800
TAC
QT Input Channel

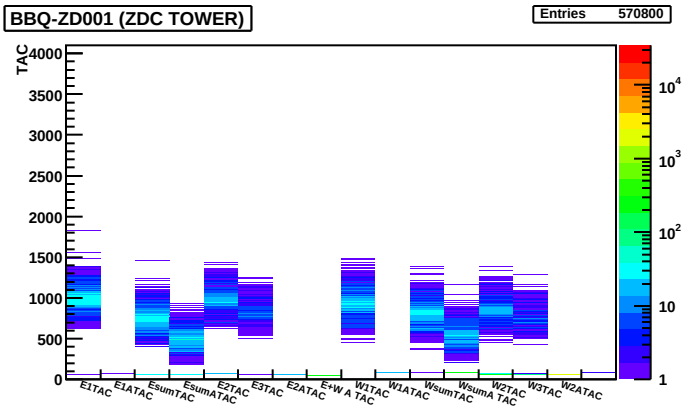

BBQ-BB002 (BBC west small tiles ADC)
Entries 570800
ADC
QT Input Channel

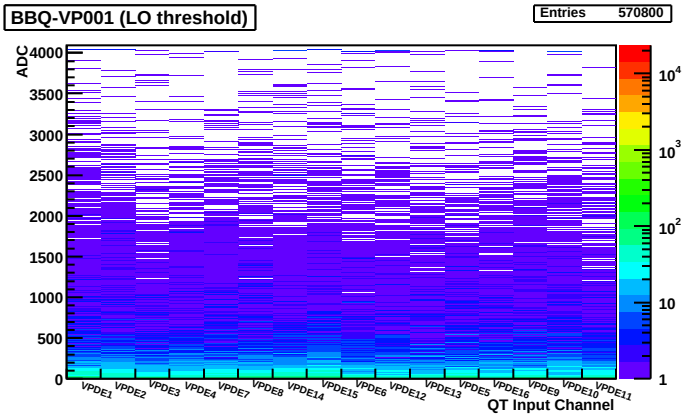

BBQ-BB002 (BBC west small tiles TAC)
Entries 570800
TAC
QT Input Channel

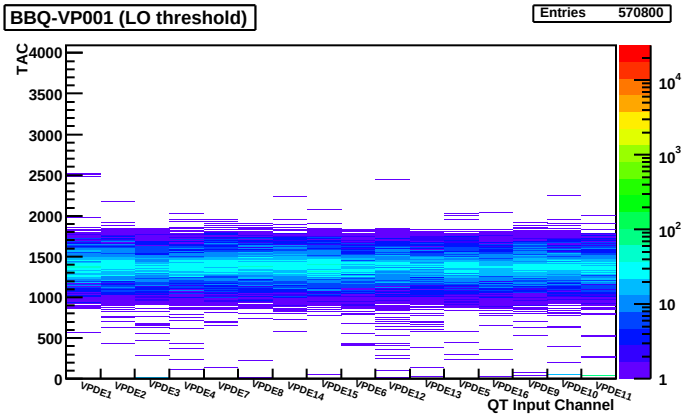

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 570800
ADC
QT Input Channel

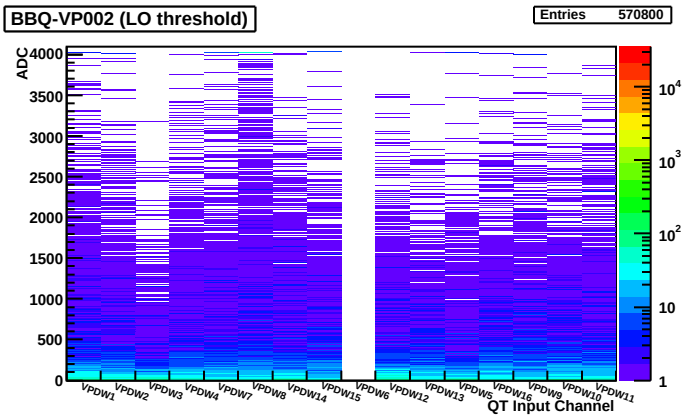

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 570800
TAC
QT Input Channel

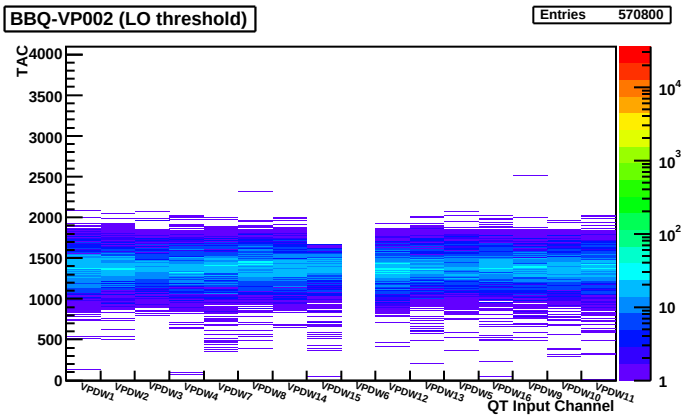

BBQ-ZD001 (ZDC TOWER)
Entries 570800
ADC

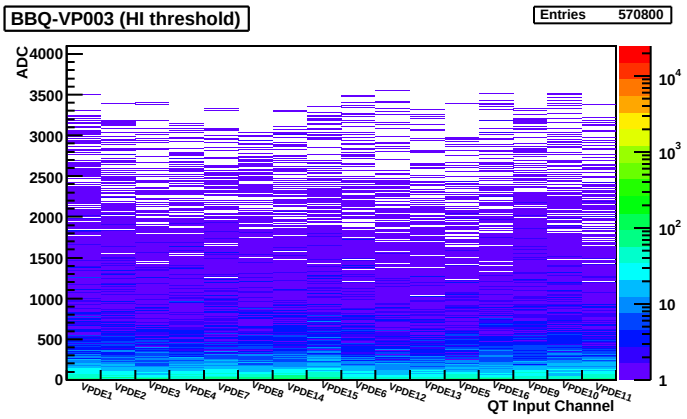

BBQ-ZD001 (ZDC TOWER)
Entries 570800
TAC

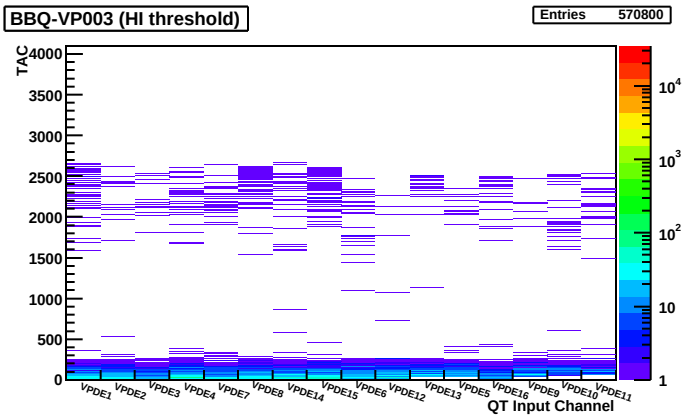

BBQ-VP001 (LO threshold)
Entries 570800
ADC
QT Input Channel

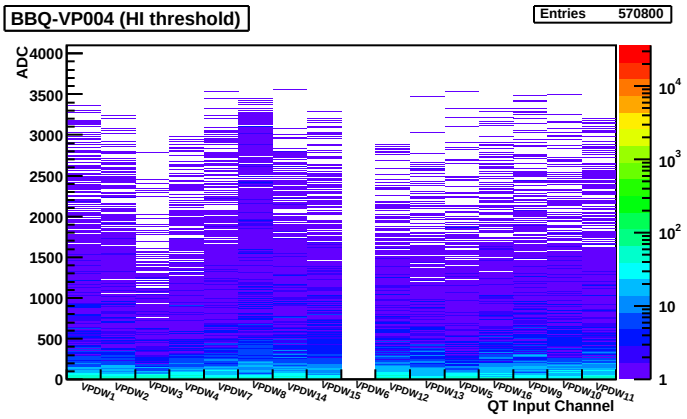

BBQ-VP001 (LO threshold)
Entries 570800
TAC
QT Input Channel

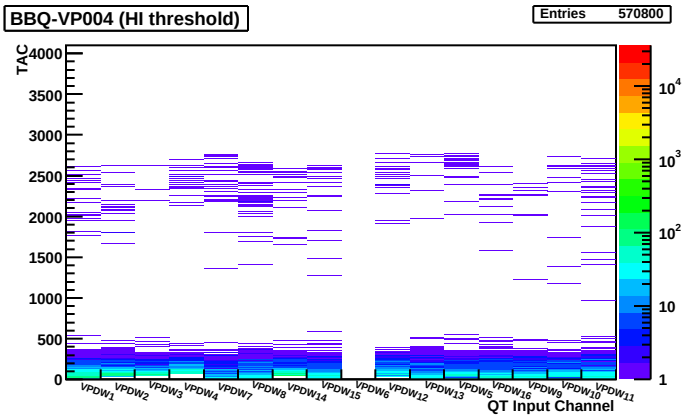

BBQ-VP002 (LO threshold)
Entries 570800
ADC
QT Input Channel

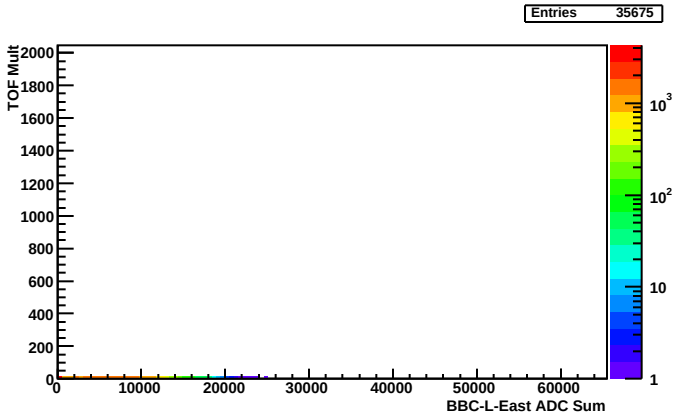

BBQ-VP002 (LO threshold)
Entries 570800
TAC
QT Input Channel

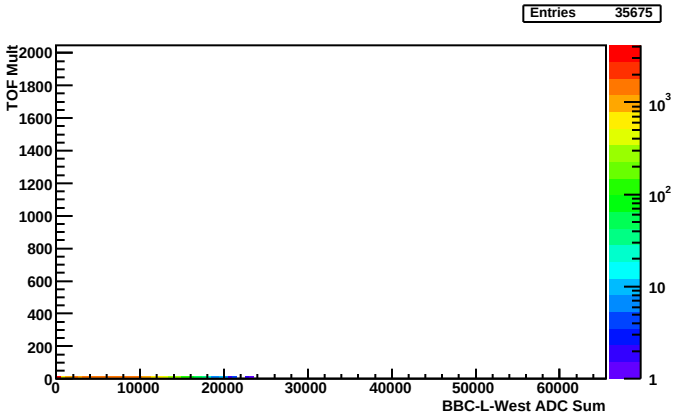

BBQ-VP003 (HI threshold)
Entries 570800
ADC
QT Input Channel

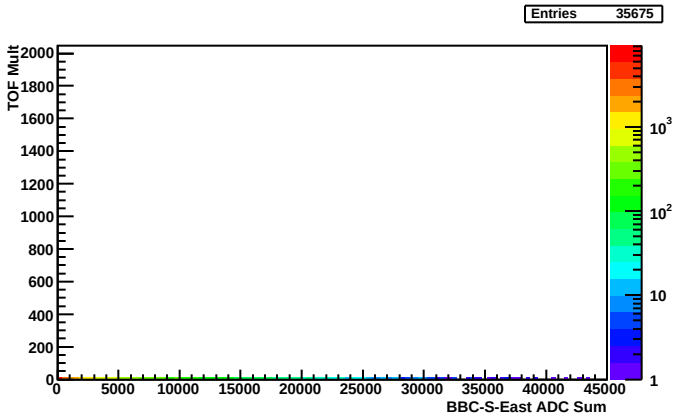

BBQ-VP003 (HI threshold)
Entries 570800
TAC
QT Input Channel

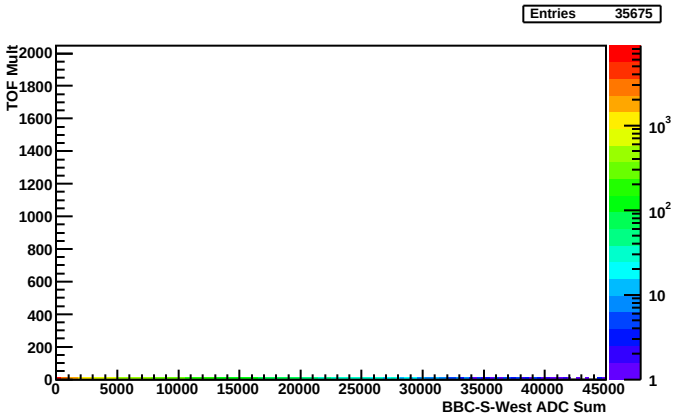

BBQ-VP004 (HI threshold)
Entries 570800
ADC
QT Input Channel

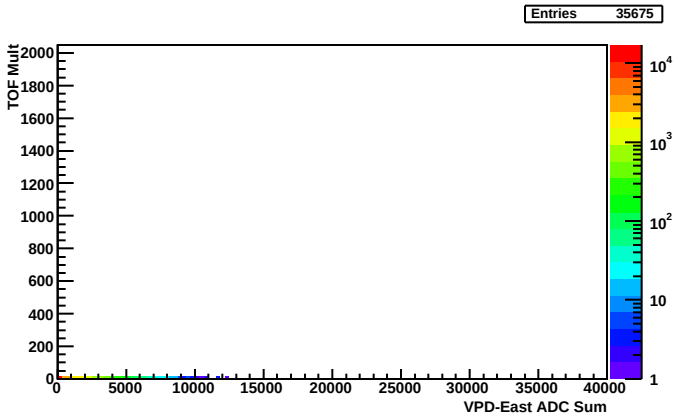

BBQ-VP004 (HI threshold)
Entries 570800
TAC
QT Input Channel

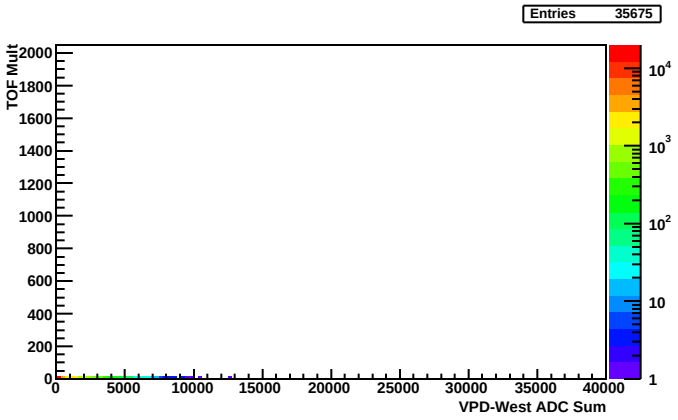

Entries 35675
TOF Mult
BBC-L-East ADC Sum

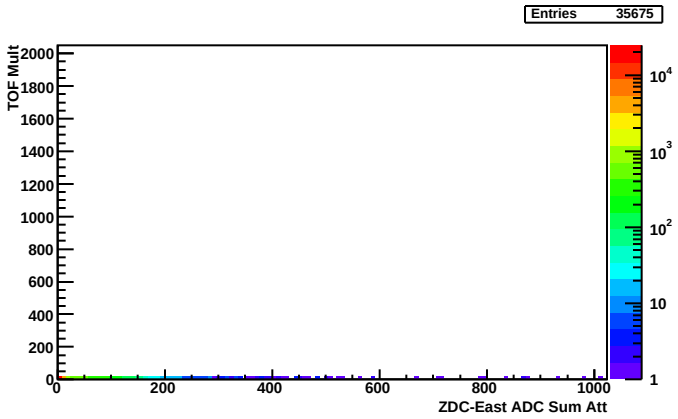

Entries 35675
TOF Mult
BBC-L-West ADC Sum

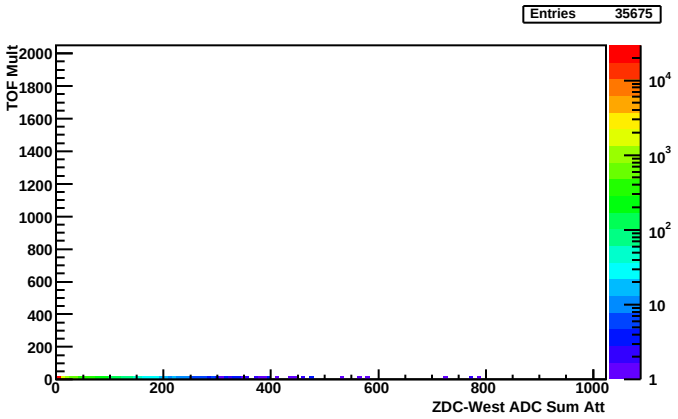

Entries 35675
TOF Mult
BBC-S-East ADC Sum

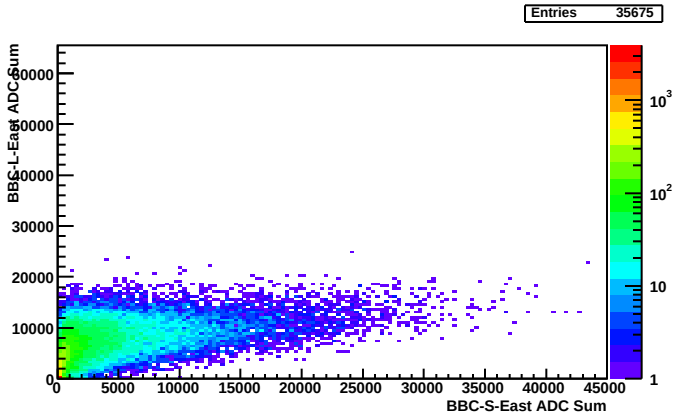

Entries 35675
TOF Mult
BBC-S-West ADC Sum

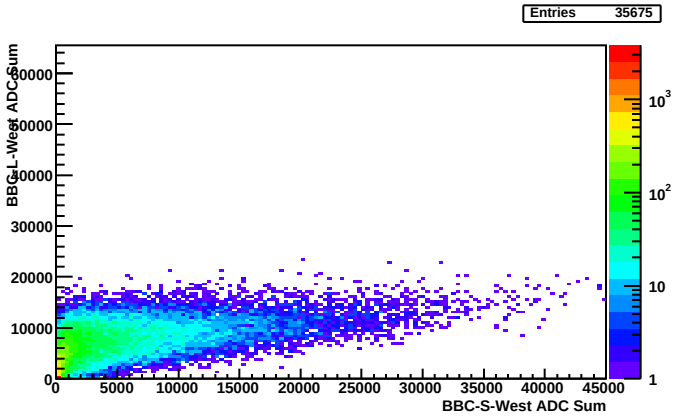

Entries 35675
TOF Mult
VPD-East ADC Sum

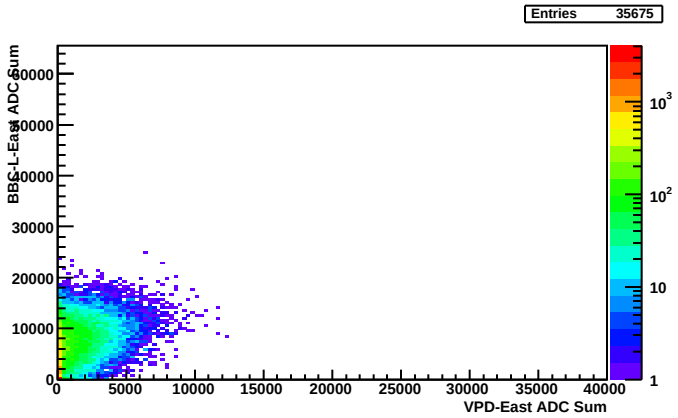

Entries 35675
TOF Mult
VPD-West ADC Sum

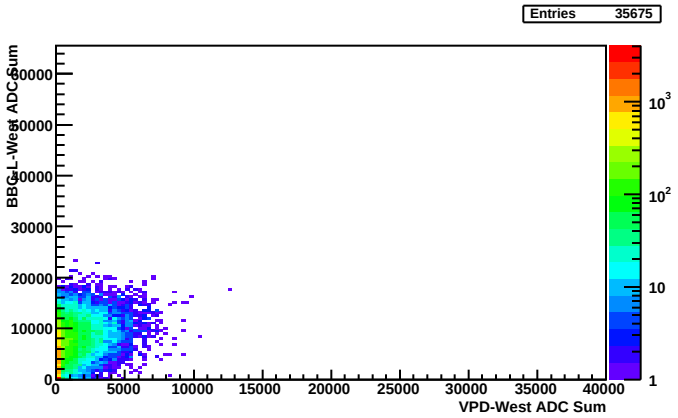

Entries 35675
TOF Mult
ZDC-East ADC Sum Att

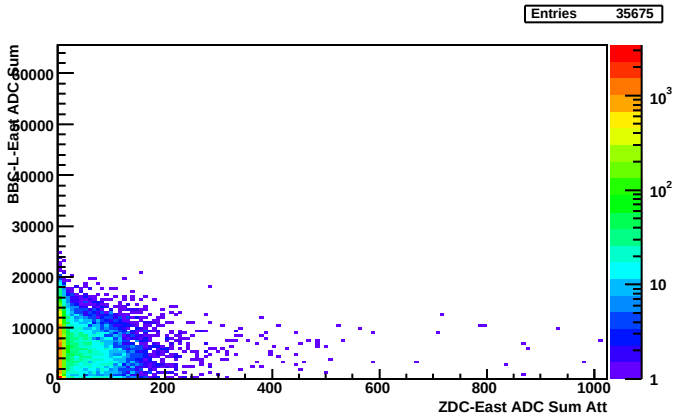

Entries 35675
TOF Mult
ZDC-West ADC Sum Att

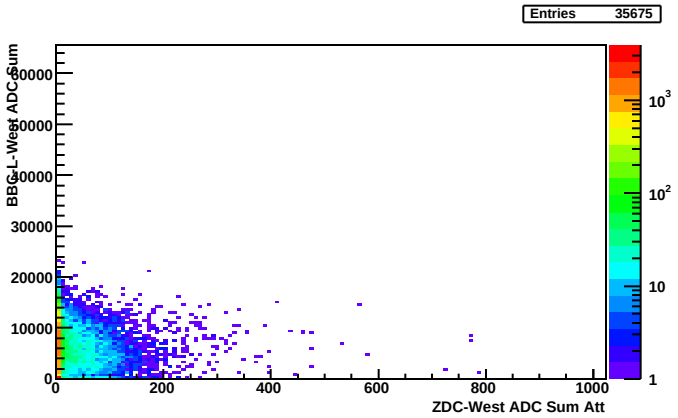

Entries 35675
BBC-L-East ADC Sum
BBC-S-East ADC Sum

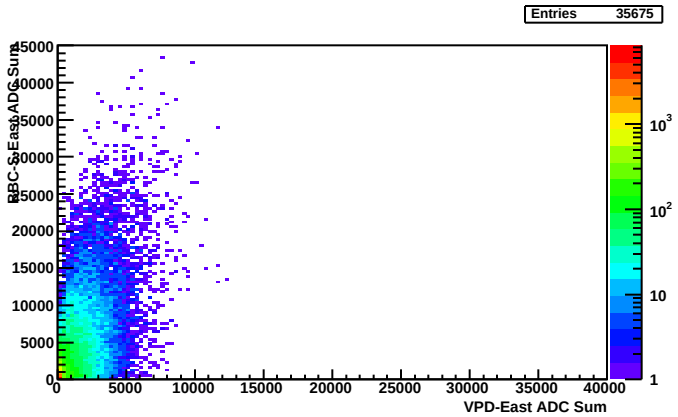

Entries 35675
BBC-L-West ADC Sum
BBC-S-West ADC Sum

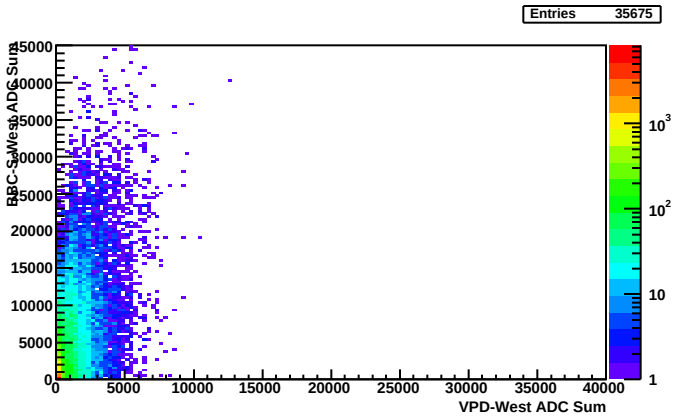

Entries 35675
BBC-L-East ADC Sum
VPD-East ADC Sum

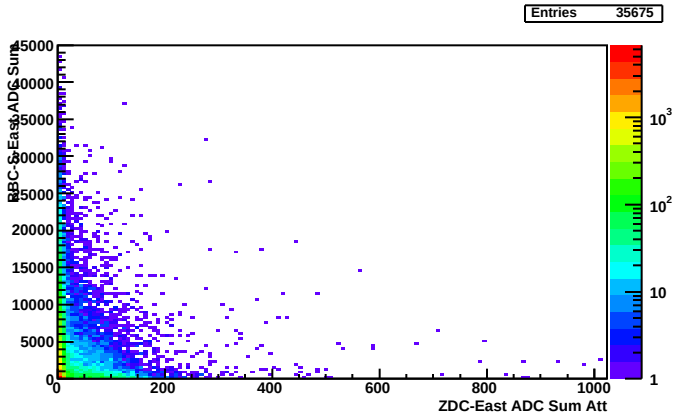

Entries 35675
BBC-L-West ADC Sum
VPD-West ADC Sum

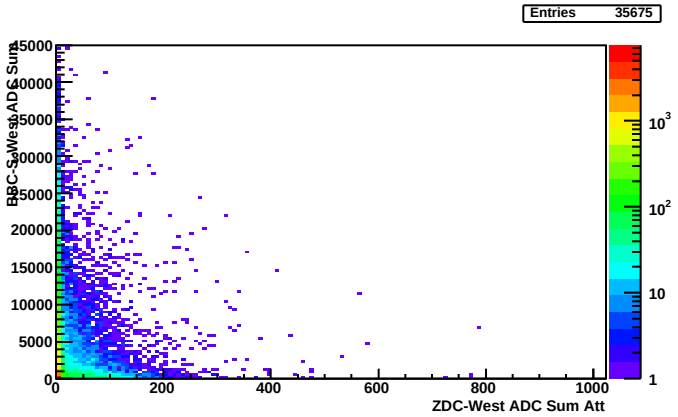

Entries 35675
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

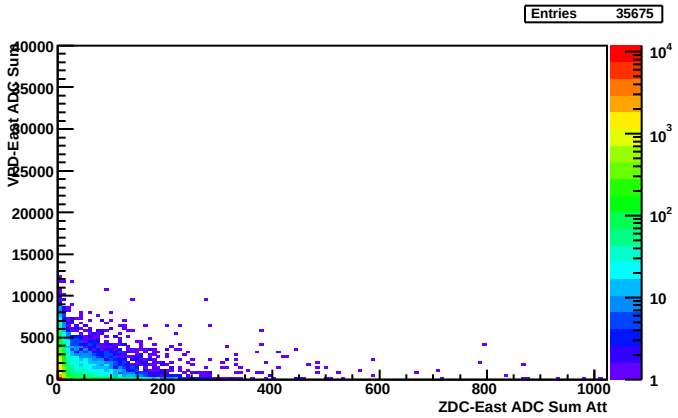

Entries 35675
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

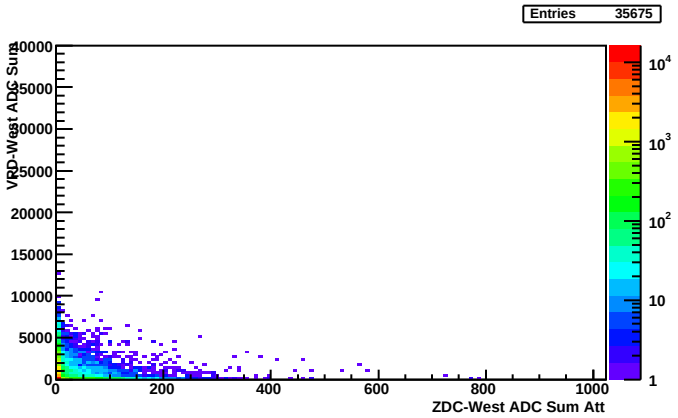

Entries 35675
BBC-S-East ADC Sum
VPD-East ADC Sum

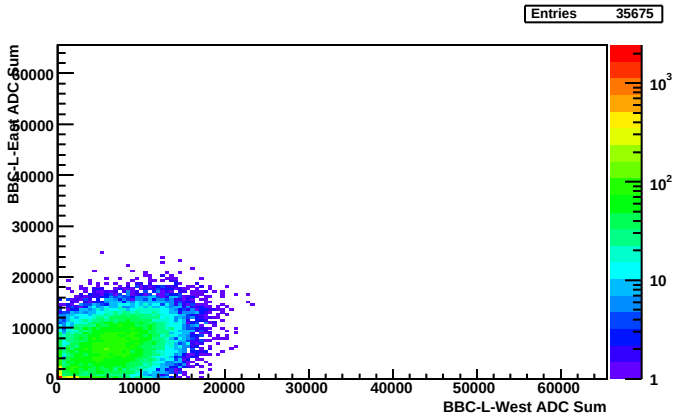

Entries 35675
BBC-S-West ADC Sum
VPD-West ADC Sum

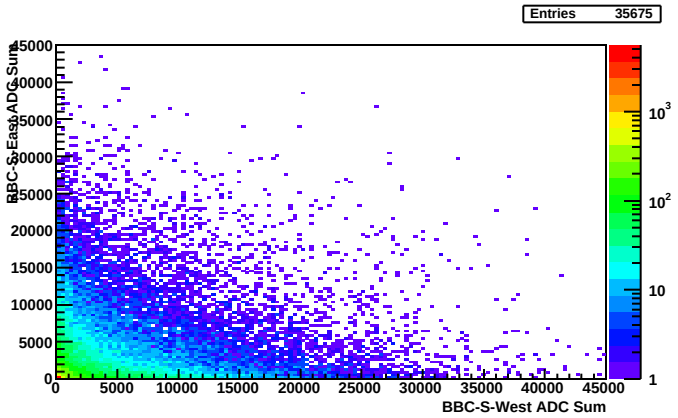

Entries 35675
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

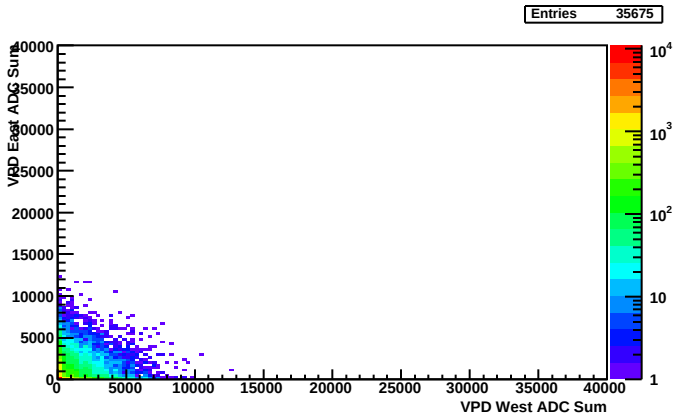

Entries 35675
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

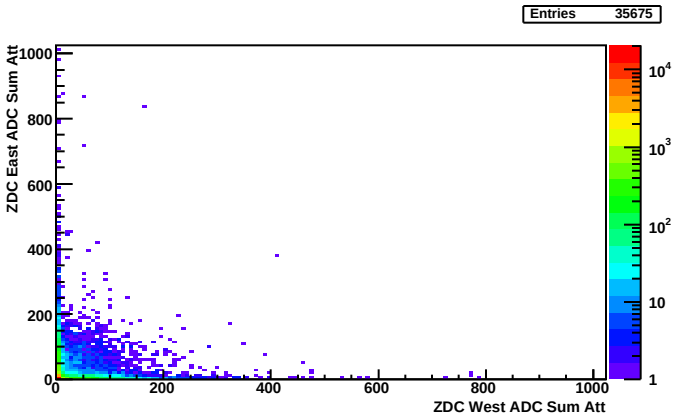

Entries 35675
VPD-East ADC Sum
ZDC-East ADC Sum Att

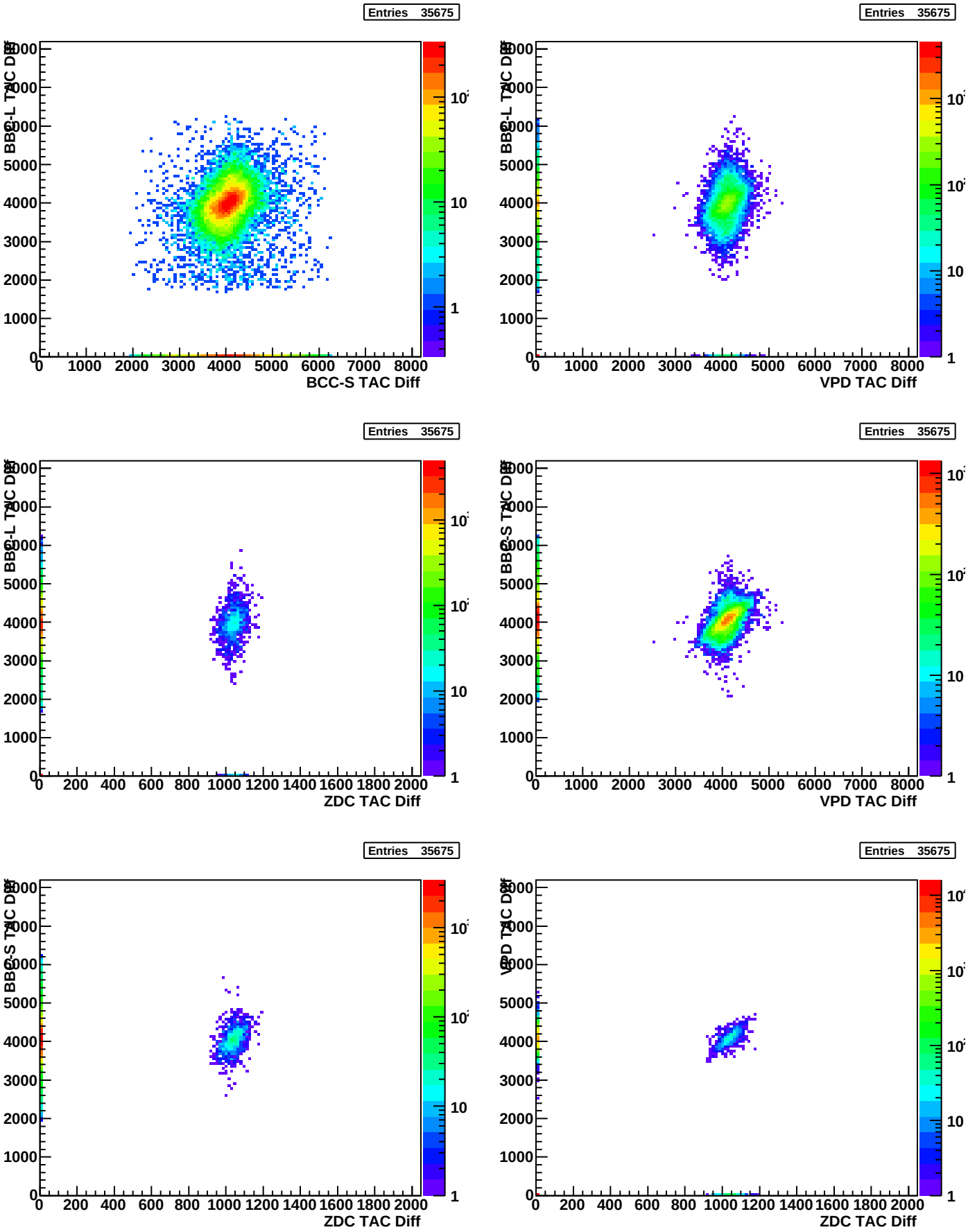

Entries 35675
VPD-West ADC Sum
ZDC-West ADC Sum Att

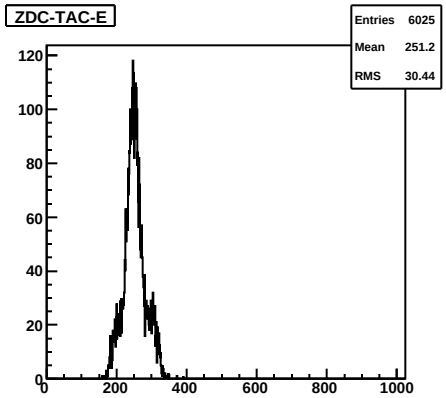

Entries 35675
BBC-L-East ADC Sum
BBC-L-West ADC Sum

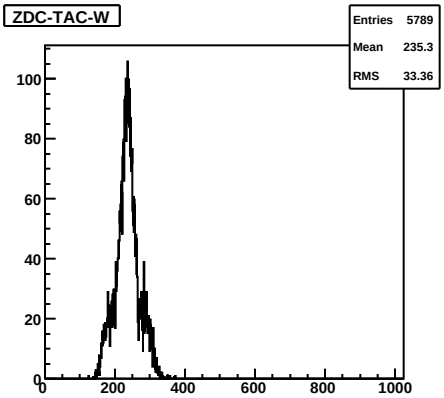

Entries 35675
BBC-S-East ADC Sum
BBC-S-West ADC Sum

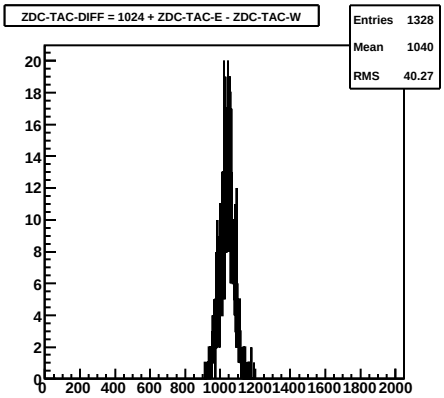

Entries 35675
VPD East ADC Sum
VPD West ADC Sum

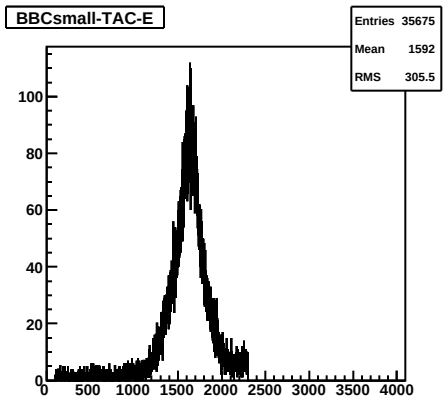

Entries 35675
ZDC East ADC Sum Att
ZDC West ADC Sum Att

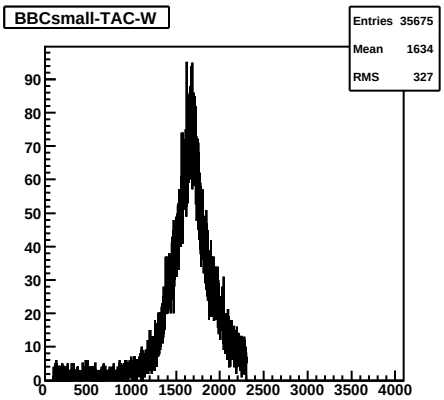

Entries 35675
BBC-L TAC Diff
BCC-S TAC Diff
Entries 35675
BBC-L TAC Diff
VPD TAC Diff
Entries 35675
BBC-L TAC Diff
ZDC TAC Diff
Entries 35675
BBC-S TAC Diff
VPD TAC Diff
Entries 35675
BBC-S TAC Diff
ZDC TAC Diff
Entries 35675
VPD TAC Diff
ZDC TAC Diff

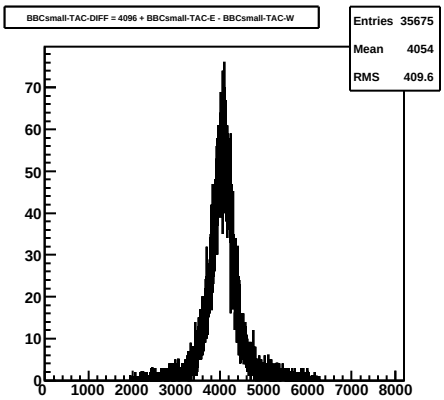

ZDC-TAC-E
Entries 6025
Mean 251.2
RMS 30.44

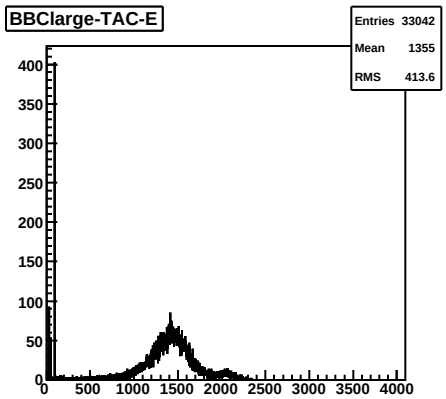

ZDC-TAC-W
Entries 5789
Mean 235.3
RMS 33.36

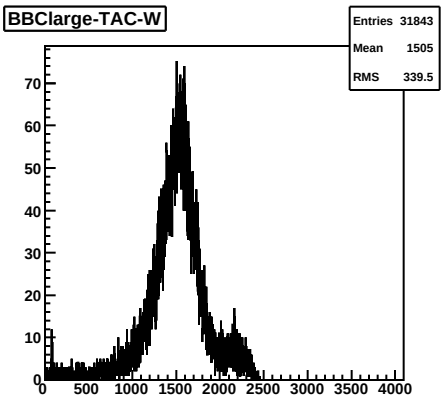

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1328
Mean 1040
RMS 40.27

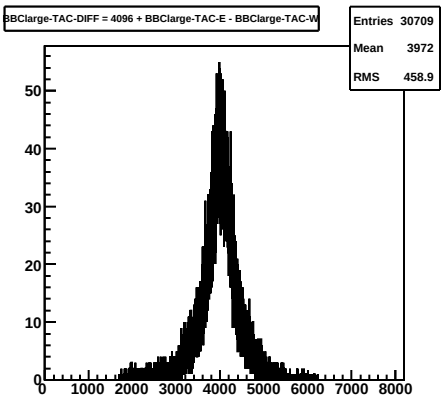

BBCsmall-TAC-E
Entries 35675
Mean 1592
RMS 305.5

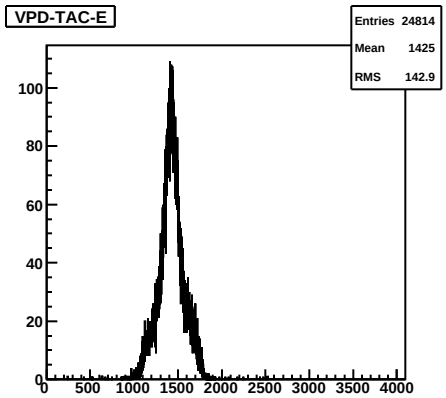

BBCsmall-TAC-W
Entries 35675
Mean 1634
RMS 327

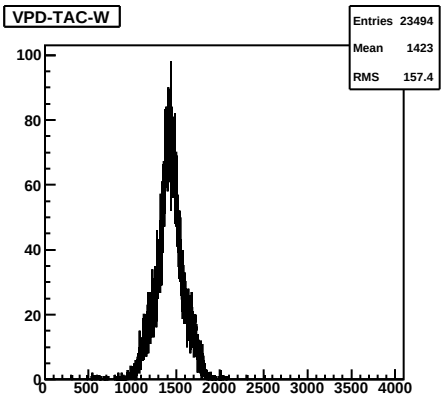

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 35675
Mean 4054
RMS 409.6

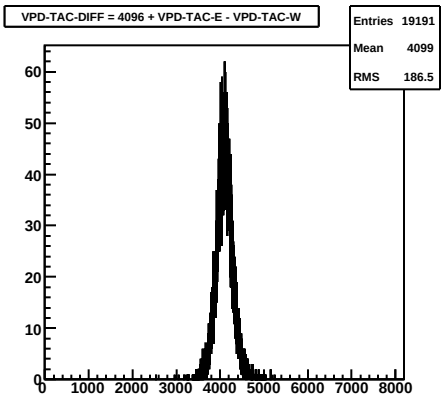

BBClarge-TAC-E
Entries 33042
Mean 1355
RMS 413.6

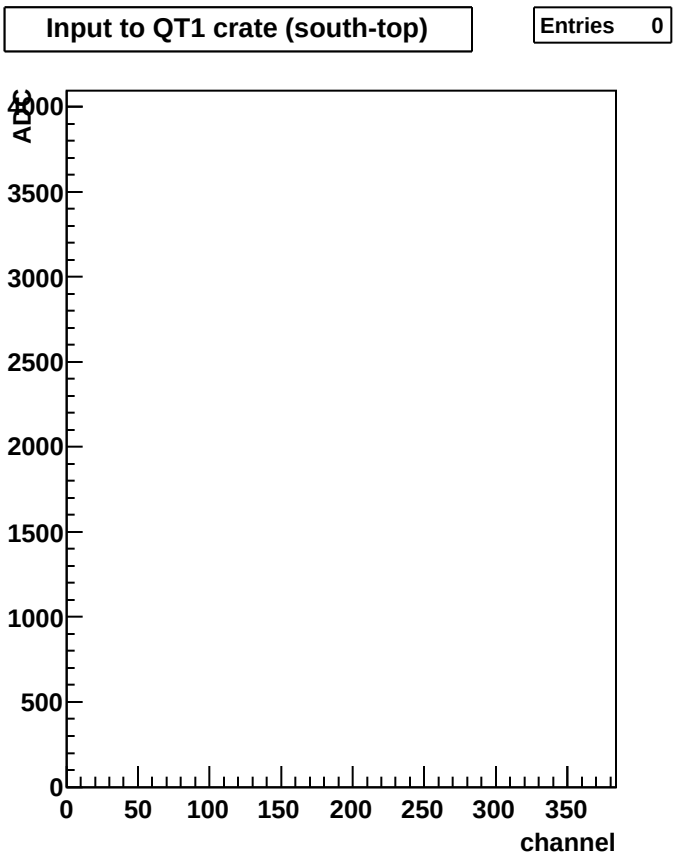

BBClarge-TAC-W
Entries 31843
Mean 1505
RMS 339.5

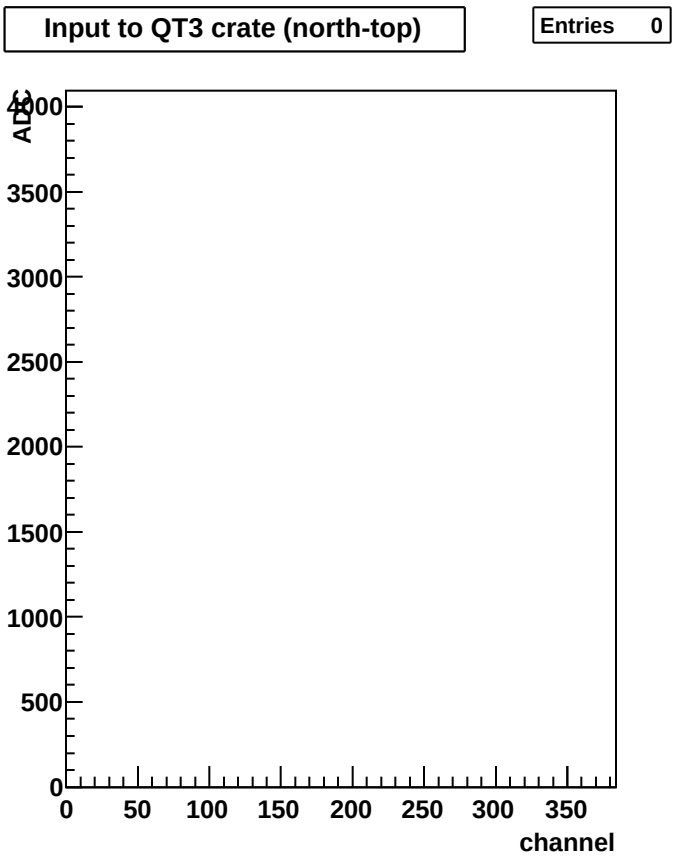

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 30709
Mean 3972
RMS 458.9

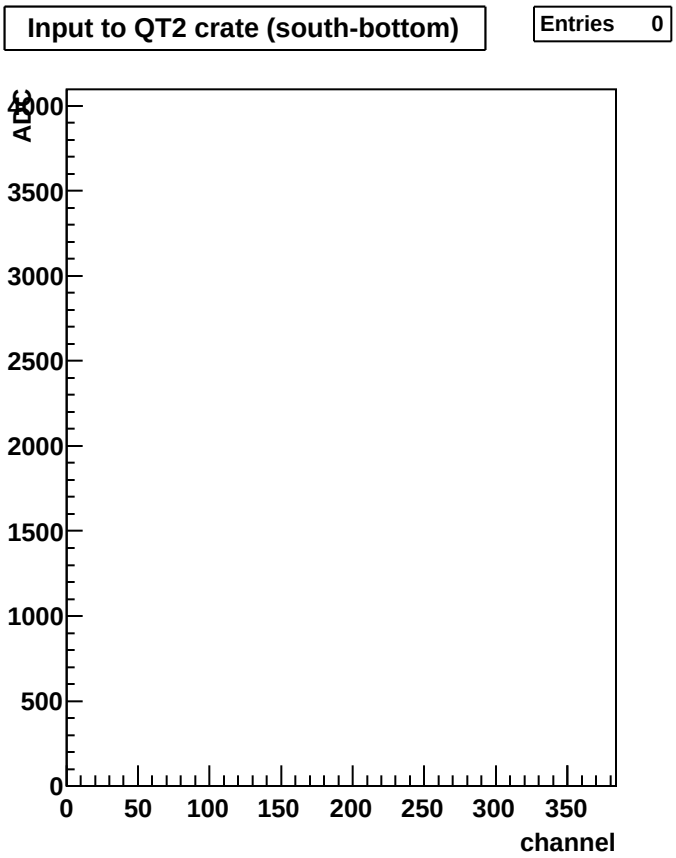

VPD-TAC-E
Entries 24814
Mean 1425
RMS 142.9

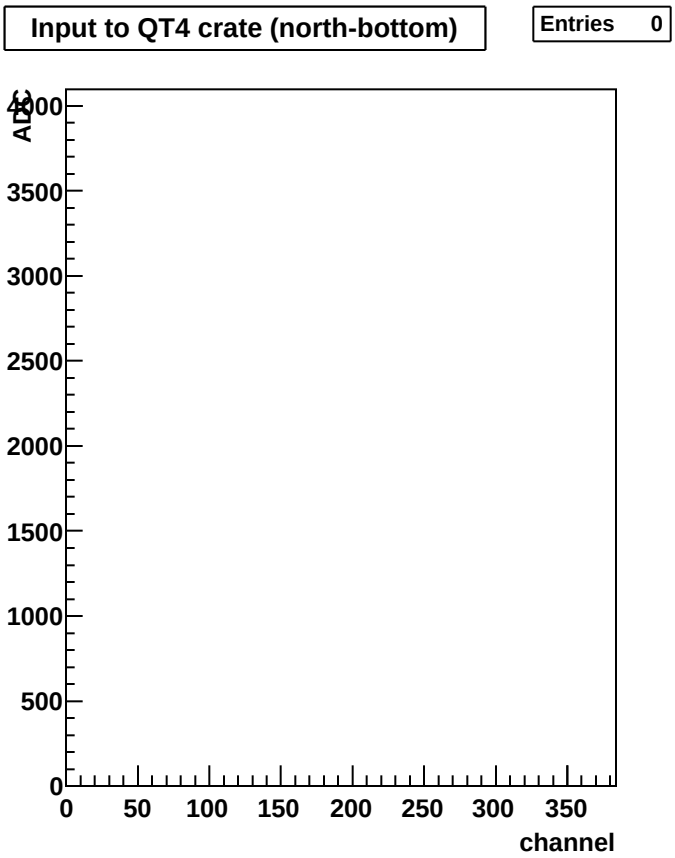

VPD-TAC-W
Entries 23494
Mean 1423
RMS 157.4

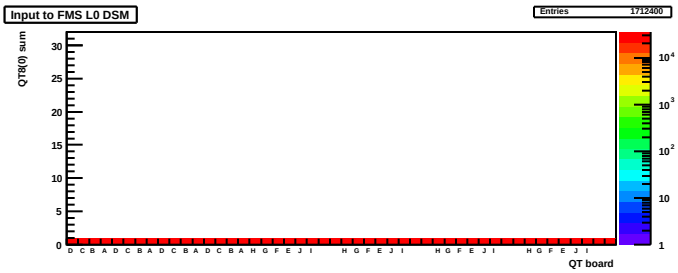

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19191
Mean 4099
RMS 186.5

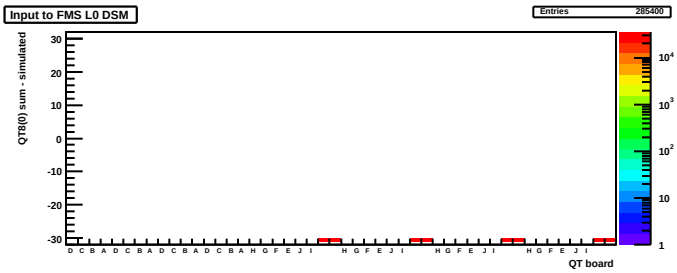

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

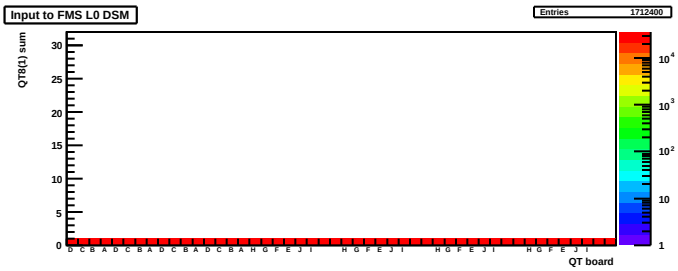

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

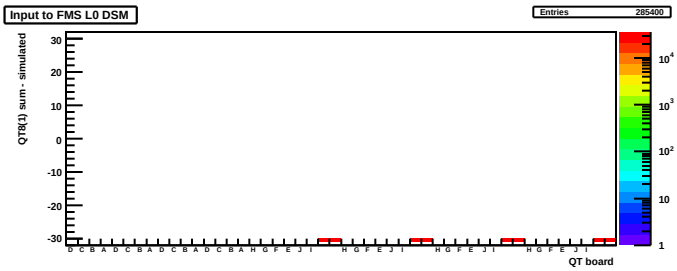

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

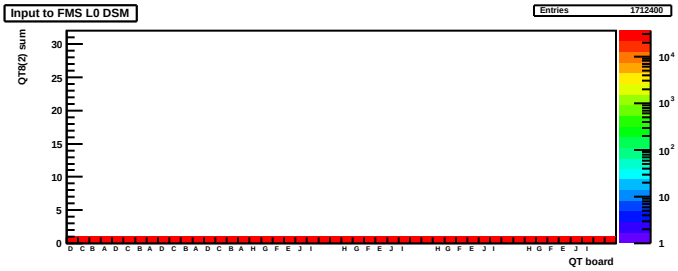

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

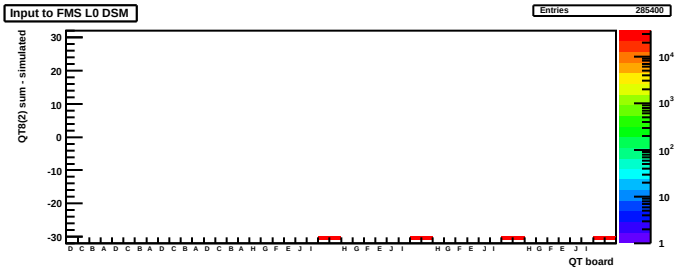

Input to FMS L0 DSM
Entries 1712400
QT8(0) sum
QT board

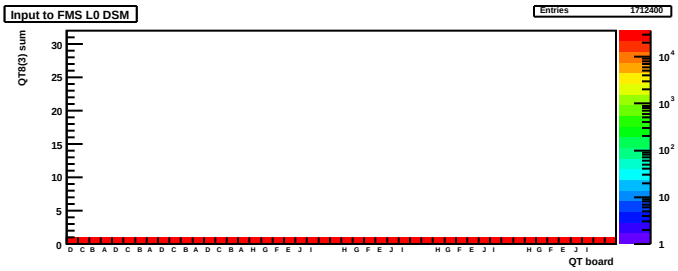

Input to FMS L0 DSM
Entries 285400
QT8(0) sum - simulated
QT board

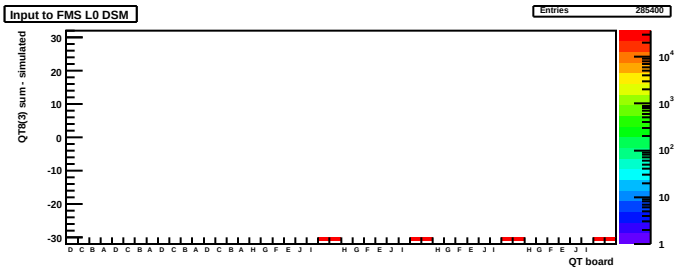

Input to FMS L0 DSM
Entries 1712400
QT8(1) sum
QT board

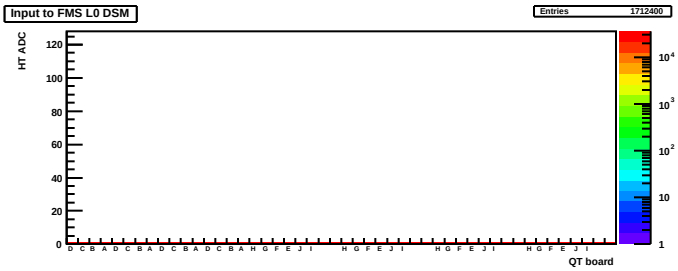

Input to FMS L0 DSM
Entries 285400
QT8(1) sum - simulated
QT board

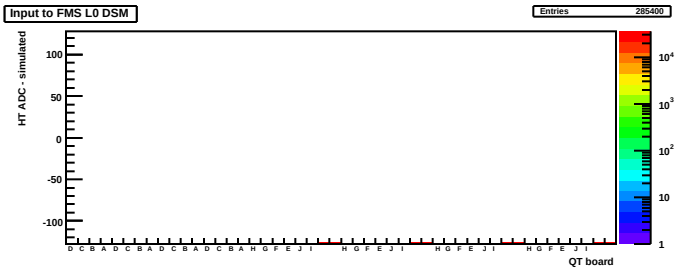

Input to FMS L0 DSM
Entries 1712400
QT8(2) sum
QT board

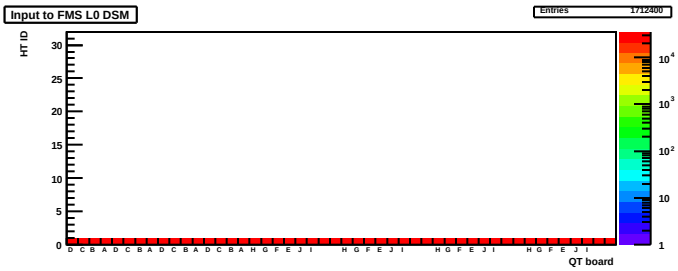

Input to FMS L0 DSM
Entries 285400
QT8(2) sum - simulated
QT board

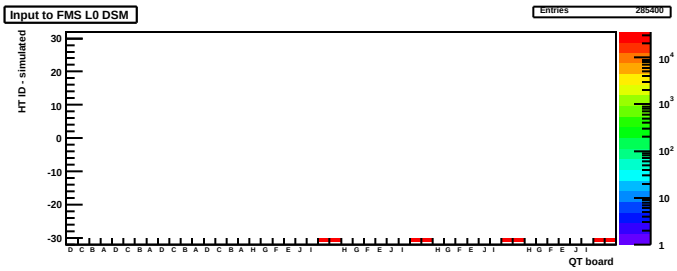

Input to FMS L0 DSM
Entries 1712400
QT8(3) sum
QT board

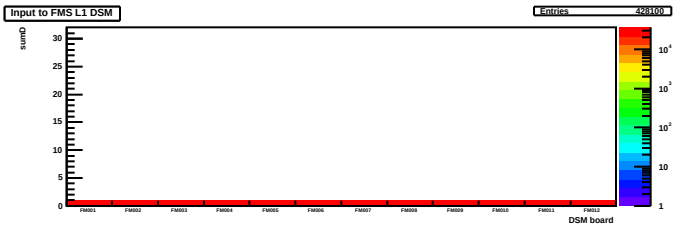

Input to FMS L0 DSM
Entries 285400
QT8(3) sum - simulated
QT board

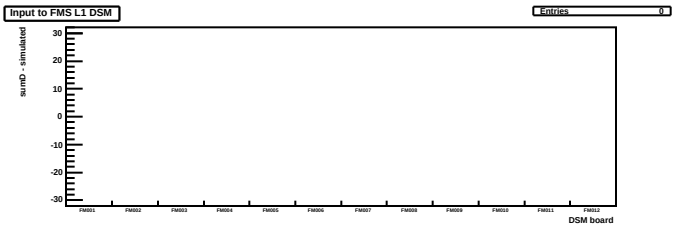

Input to FMS L0 DSM
Entries 1712400
HT ADC
QT board

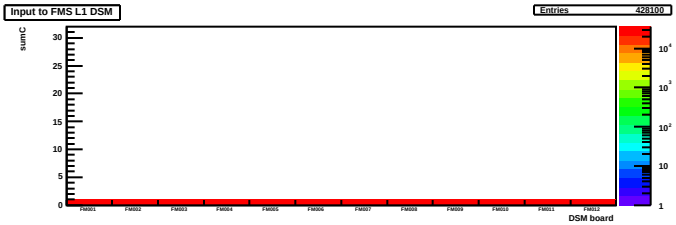

Input to FMS L0 DSM
Entries 285400
HT ADC - simulated
QT board

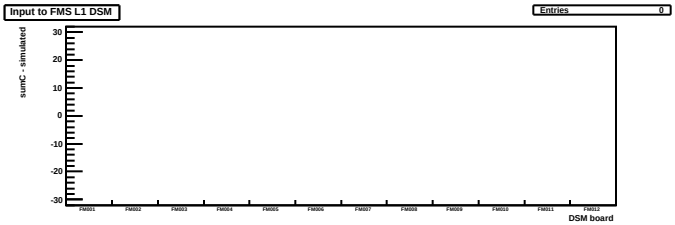

Input to FMS L0 DSM
Entries 1712400
HT ID
QT board

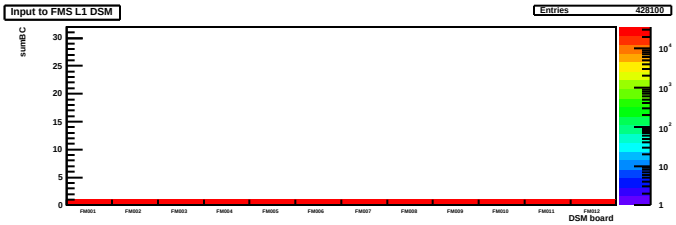

Input to FMS L0 DSM
Entries 285400
HT ID - simulated
QT board

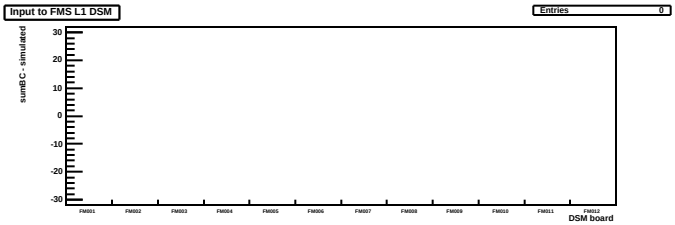

Input to FMS L1 DSM
Entries 428100
sumD
DSM board

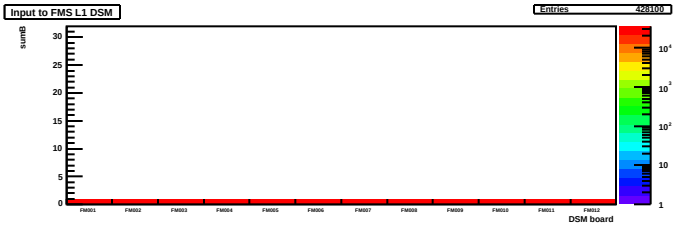

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

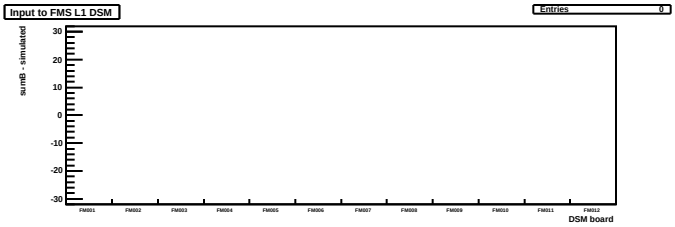

Input to FMS L1 DSM
Entries 428100
sumC
DSM board

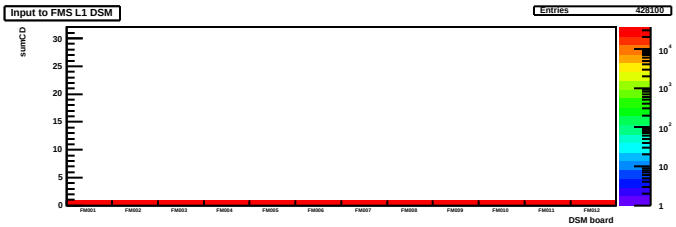

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

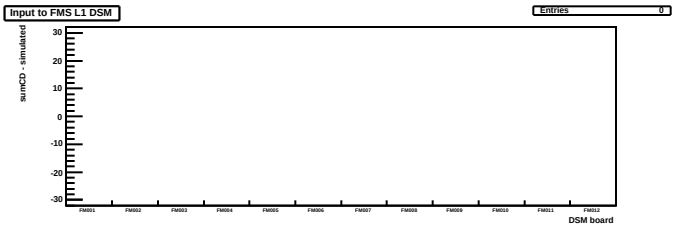

Input to FMS L1 DSM
Entries 428100
sumBC
DSM board

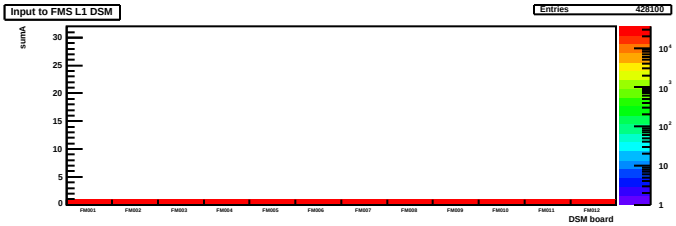

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

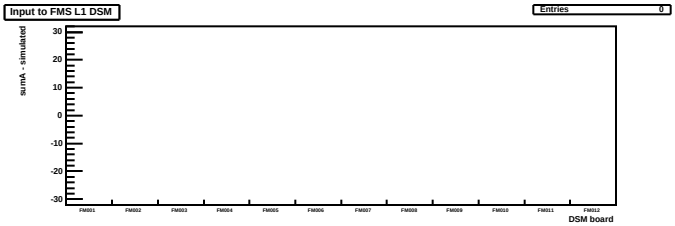

Input to FMS L1 DSM
Entries 428100
sumB
DSM board

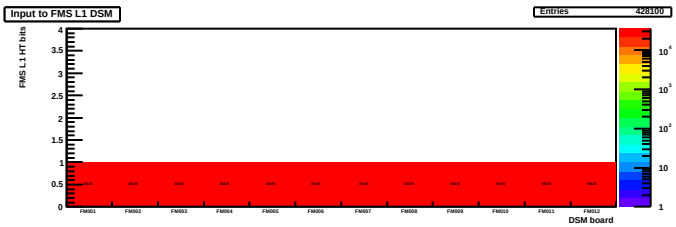

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

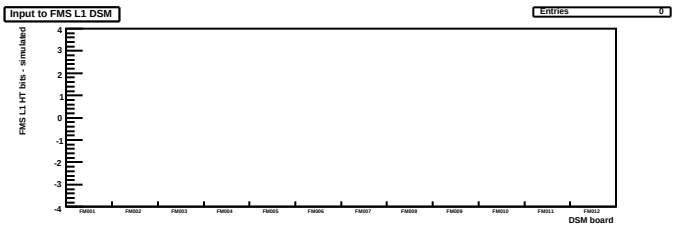

Input to FMS L1 DSM
Entries 428100
sumCD
DSM board

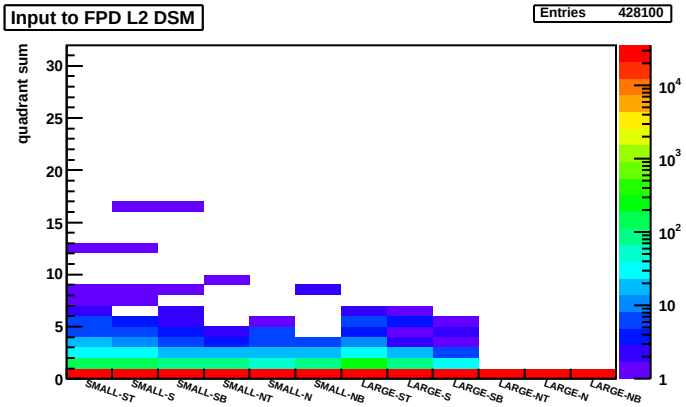

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

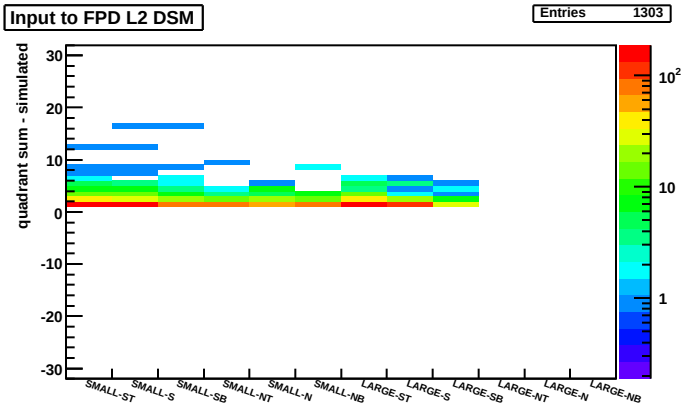

Input to FMS L1 DSM
Entries 428100
sumA
DSM board

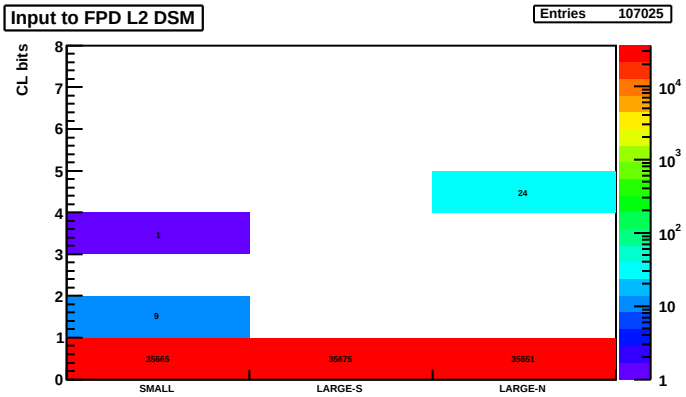

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

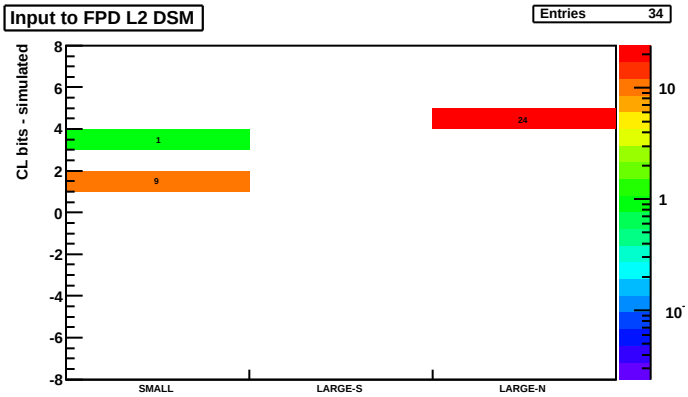

Input to FMS L1 DSM
Entries 428100
FMS L1 HT bits
DSM board

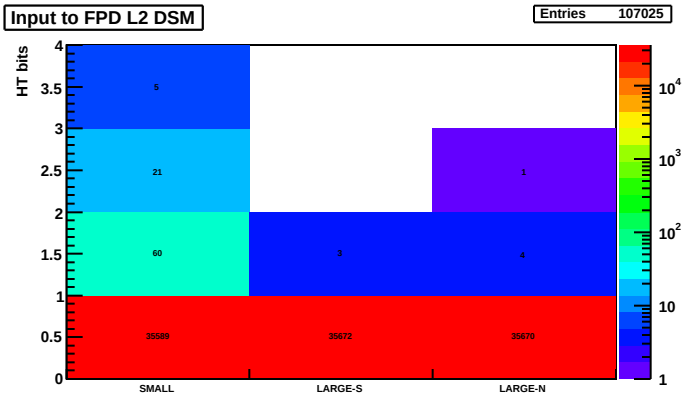

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

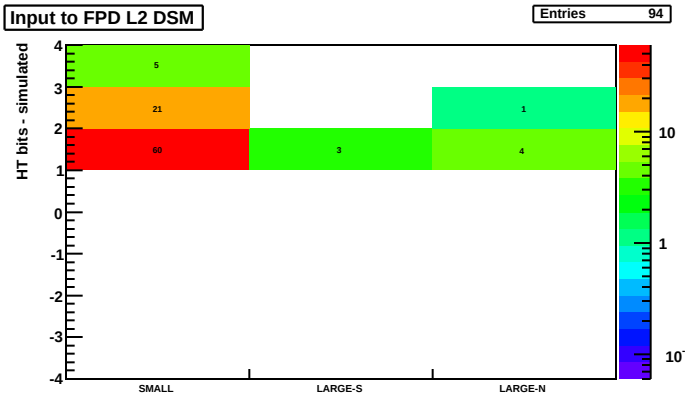

Input to FPD L2 DSM
Entries 428100
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

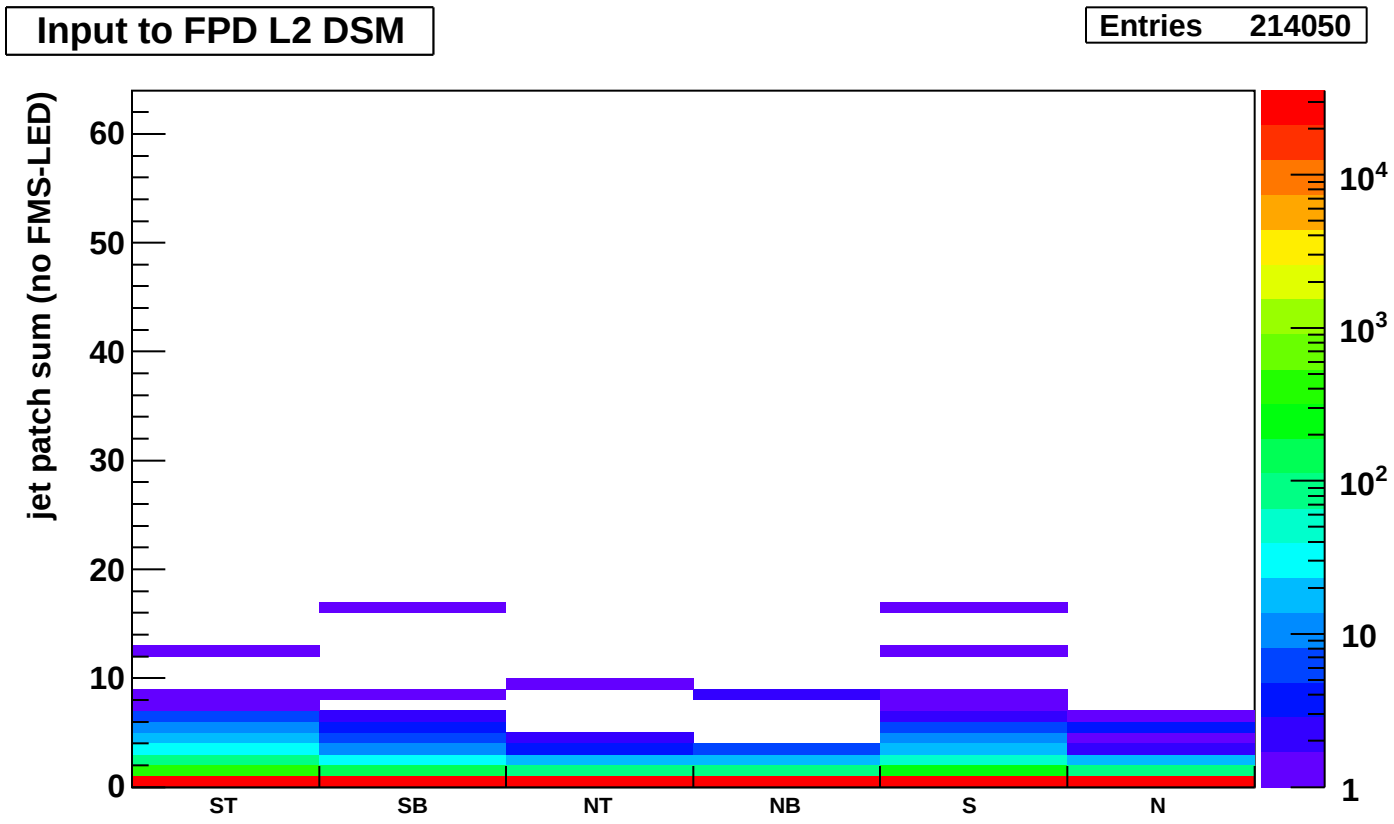

Input to FPD L2 DSM
Entries 1303
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

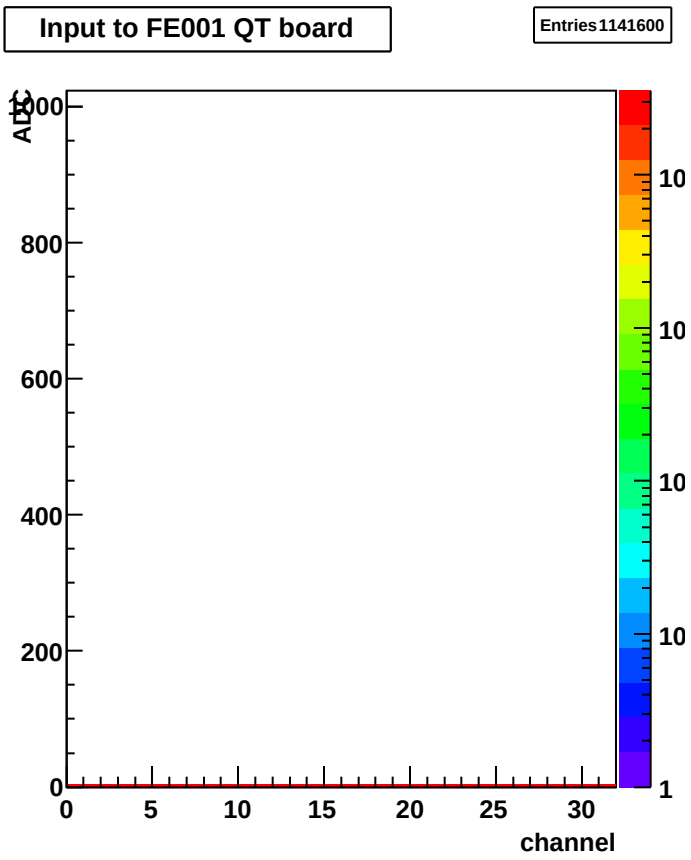

Input to FPD L2 DSM
Entries 107025
CL bits
1
9
35665
35675
24
35651
SMALL
LARGE-S
LARGE-N

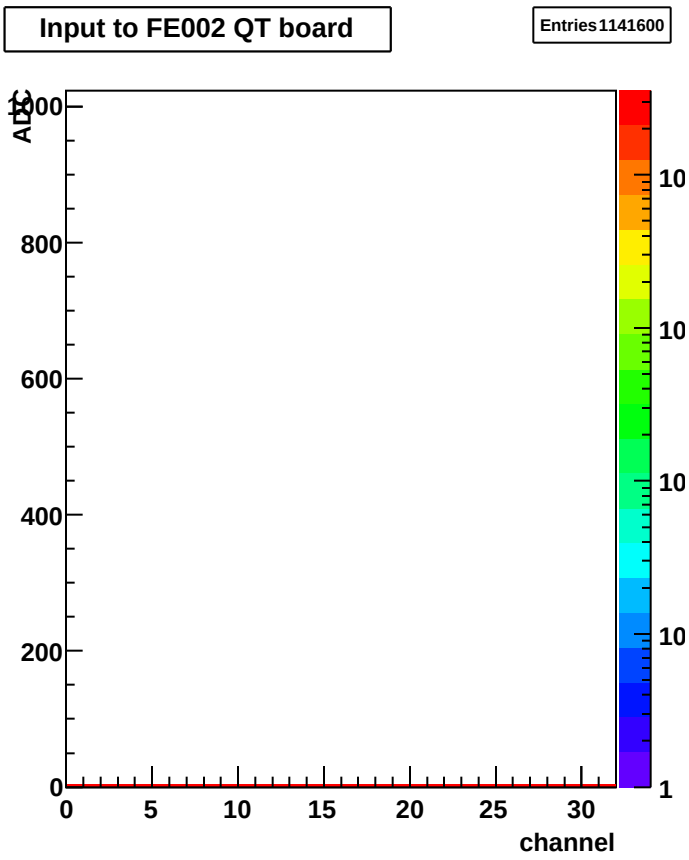

Input to FPD L2 DSM
Entries 34
CL bits - simulated
1
9
24
SMALL
LARGE-S
LARGE-N

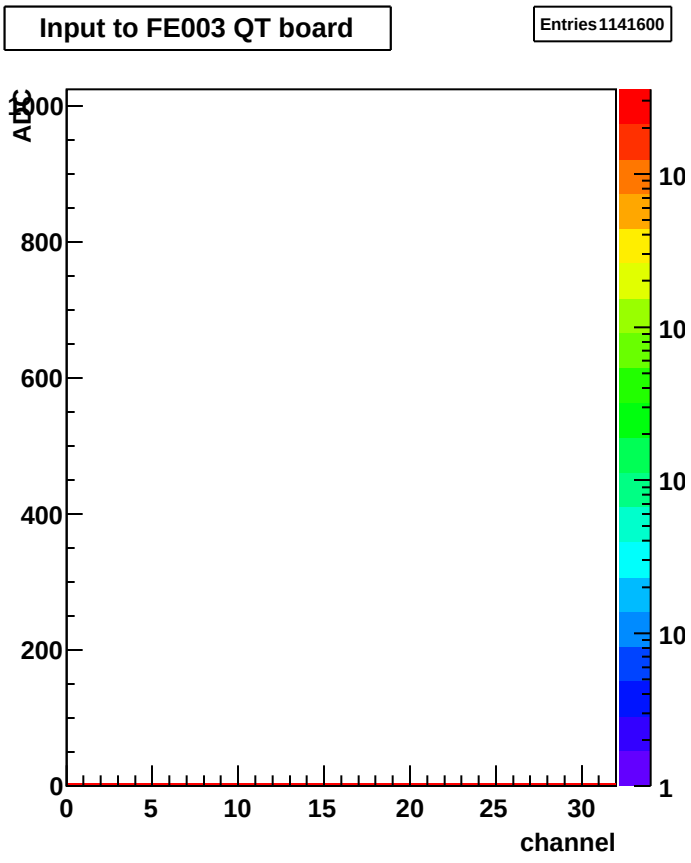

Input to FPD L2 DSM
Entries 107025
HT bits
5
21
60
35589
3
35672
1
4
35670
SMALL
LARGE-S
LARGE-N

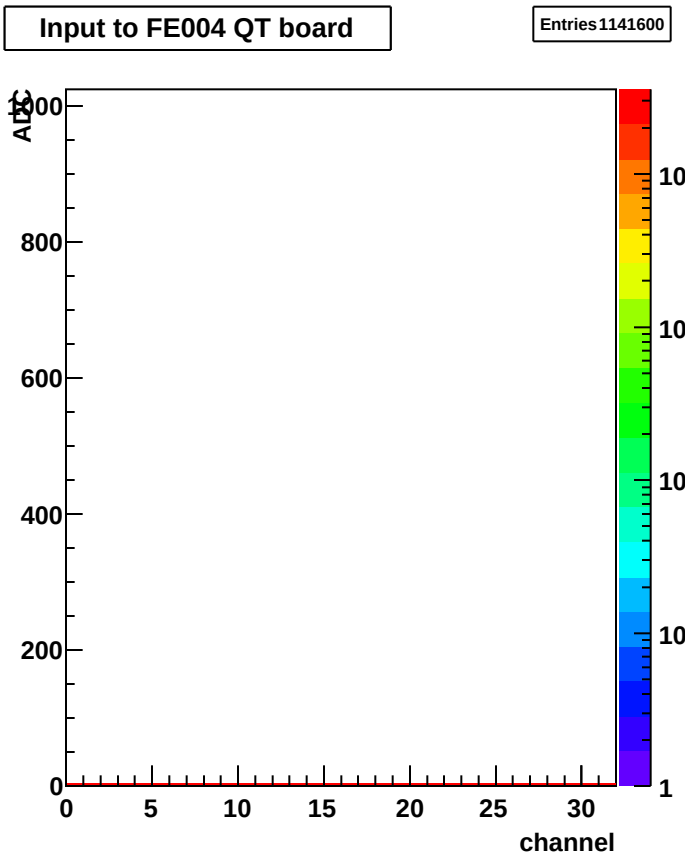

Input to FPD L2 DSM
Entries 94
HT bits - simulated
5
21
60
3
1
4
SMALL
LARGE-S
LARGE-N

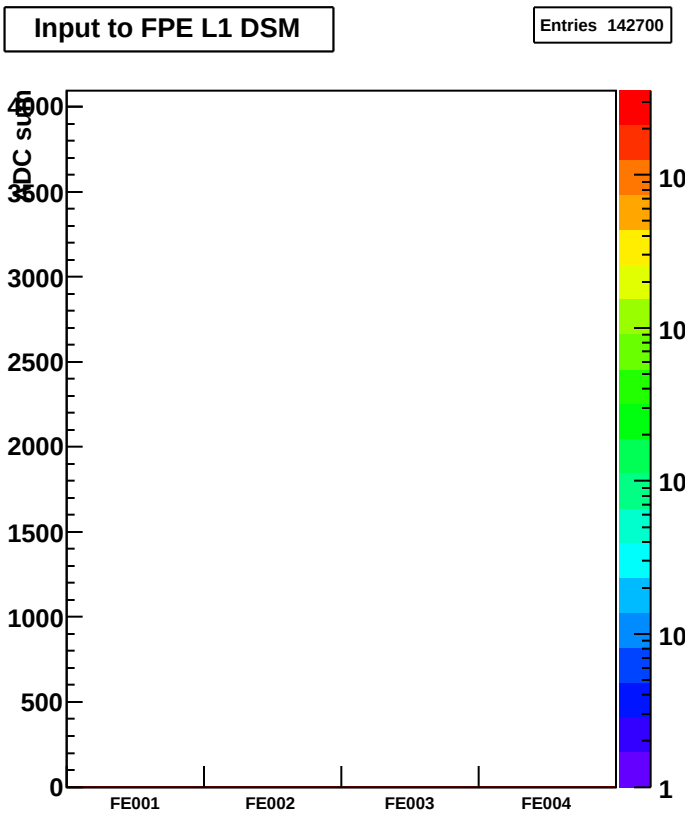

Input to FPD L2 DSM
Entries 214050
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

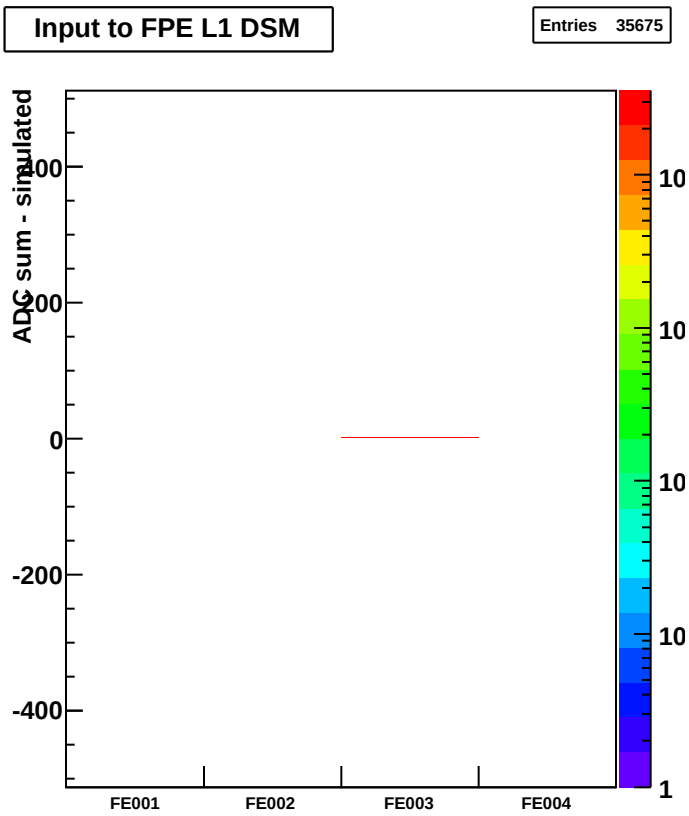

Input to FE001 QT board
Entries 1141600
ADC
channel

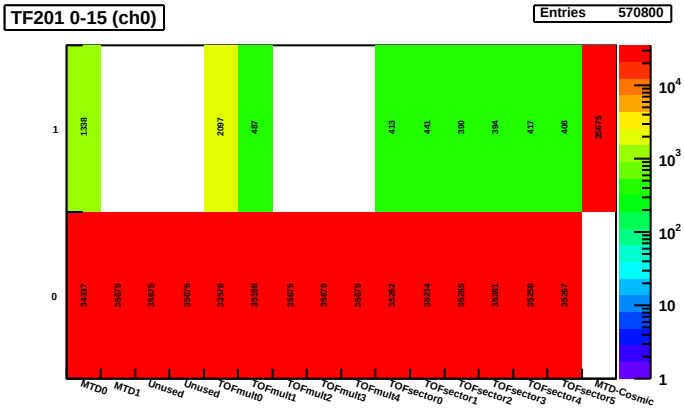

Input to FE002 QT board
Entries 1141600
ADC
channel

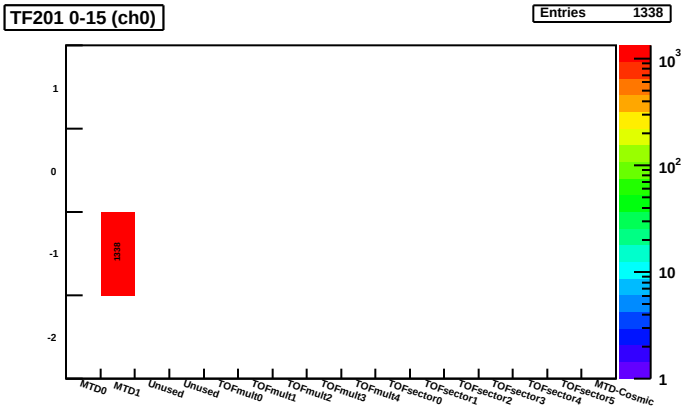

Input to FE003 QT board
Entries 1141600
ADC
channel

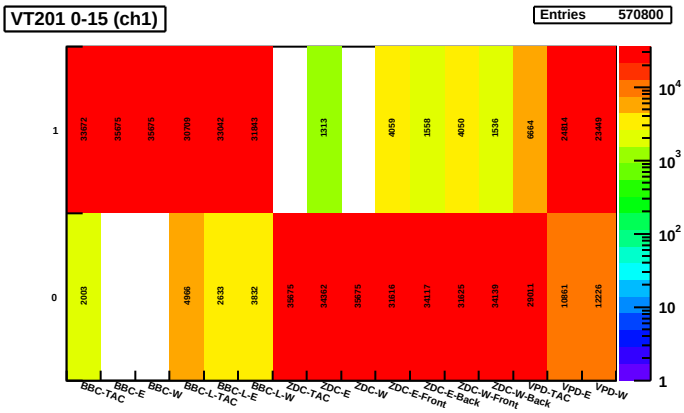

Input to FE004 QT board
Entries 1141600
ADC
channel

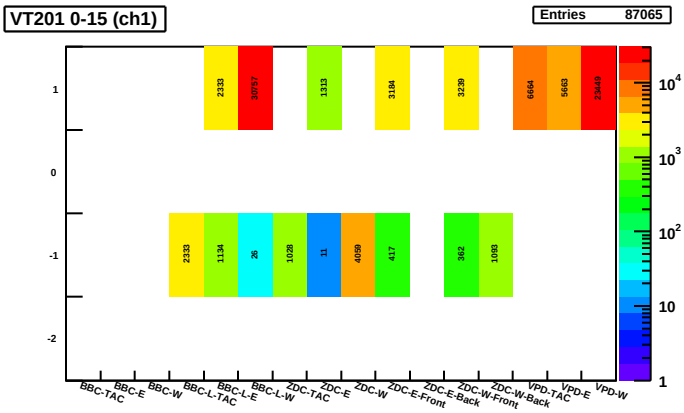

Input to FPE L1 DSM
Entries 142700
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 35675
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 570800
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1338
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 570800
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


VT201 0-15 (ch1)
Entries 87065
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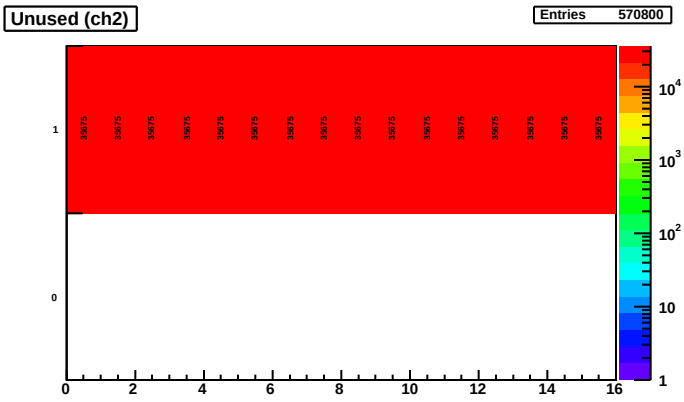
Unused (ch2)
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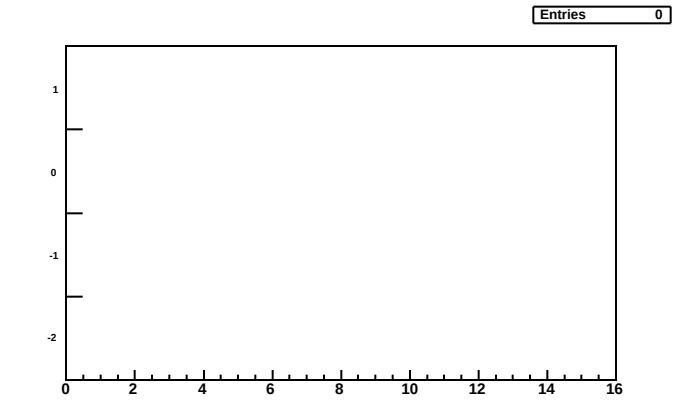
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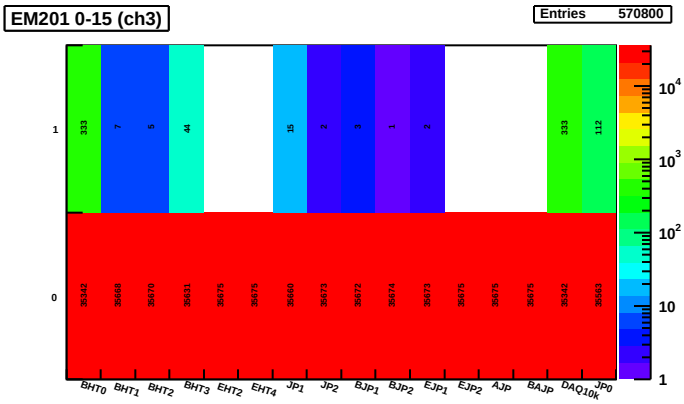
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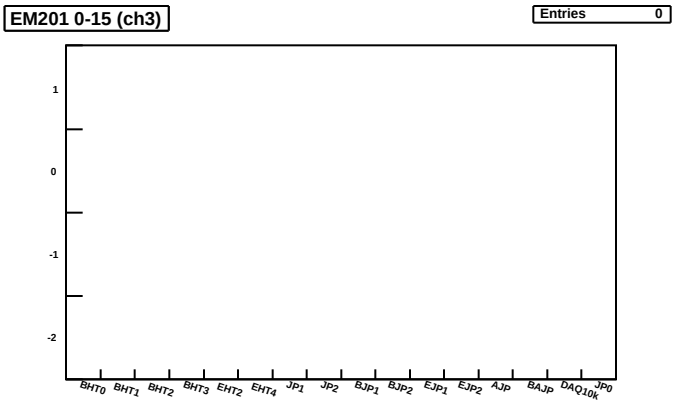
EM201 0-15 (ch3)
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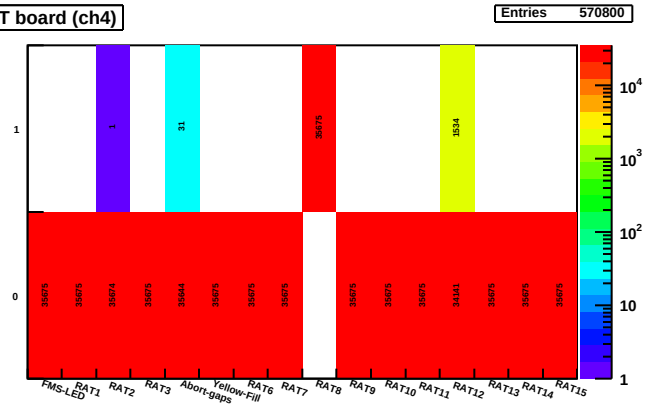
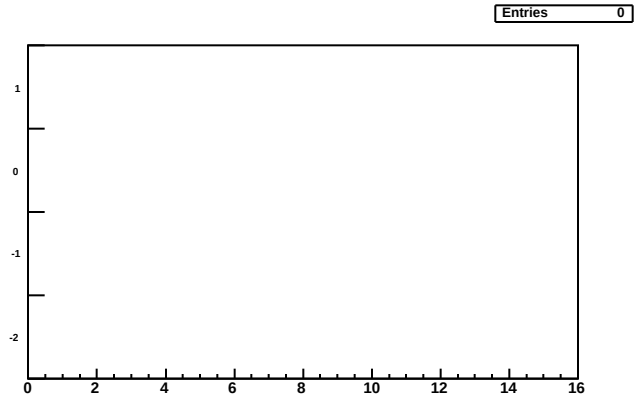
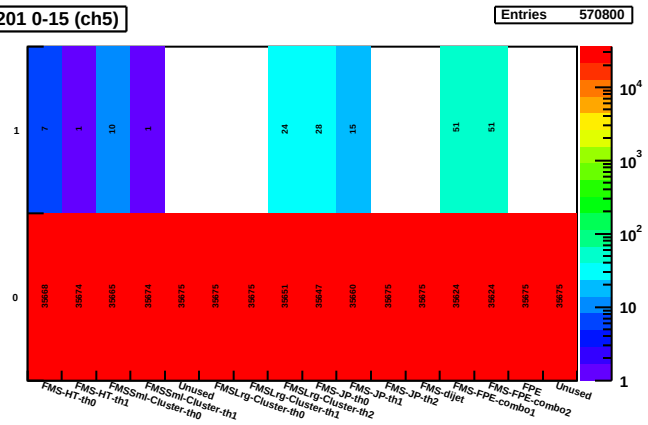
RAT board (ch4)

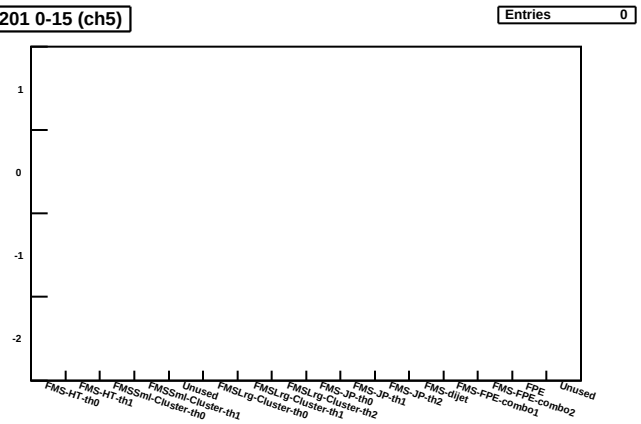




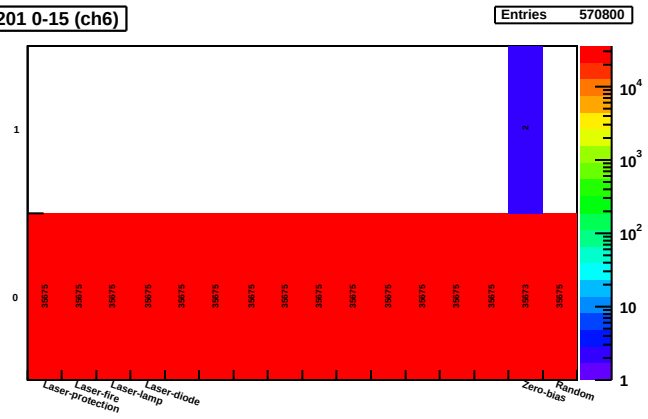
FP201 0-15 (ch5)

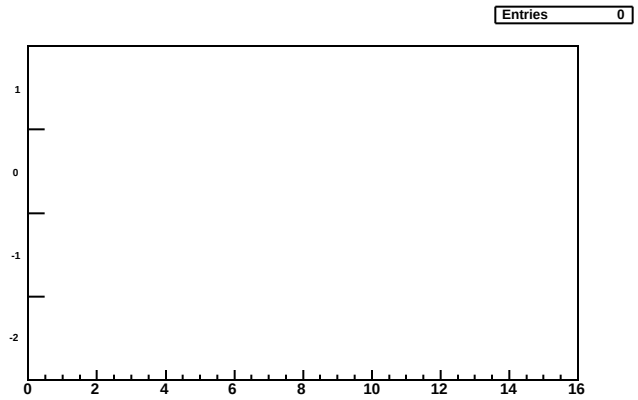
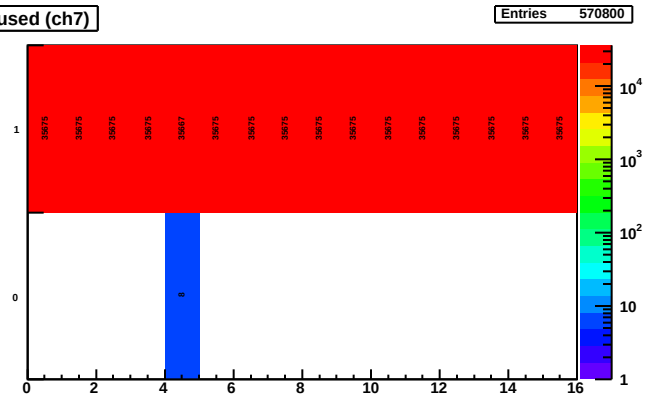
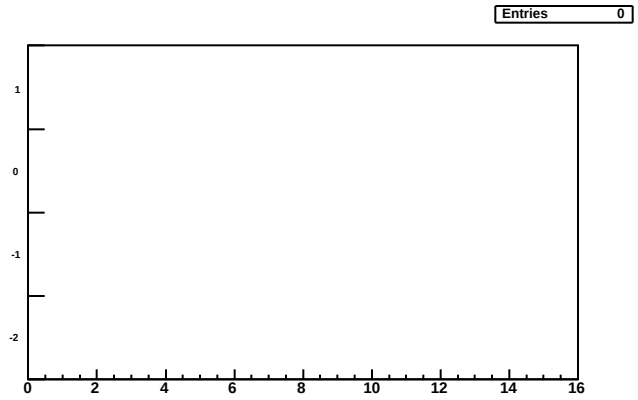


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)