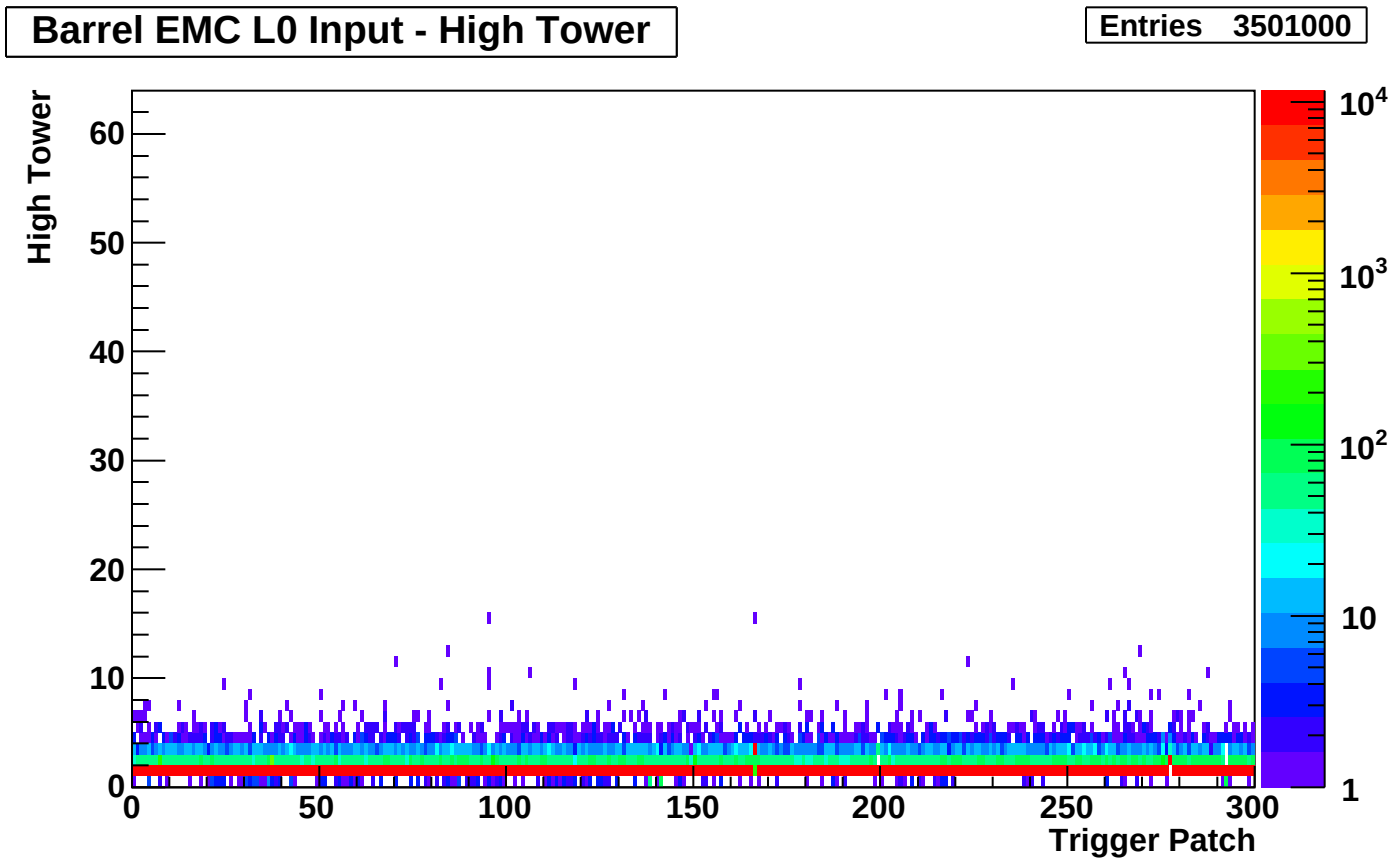
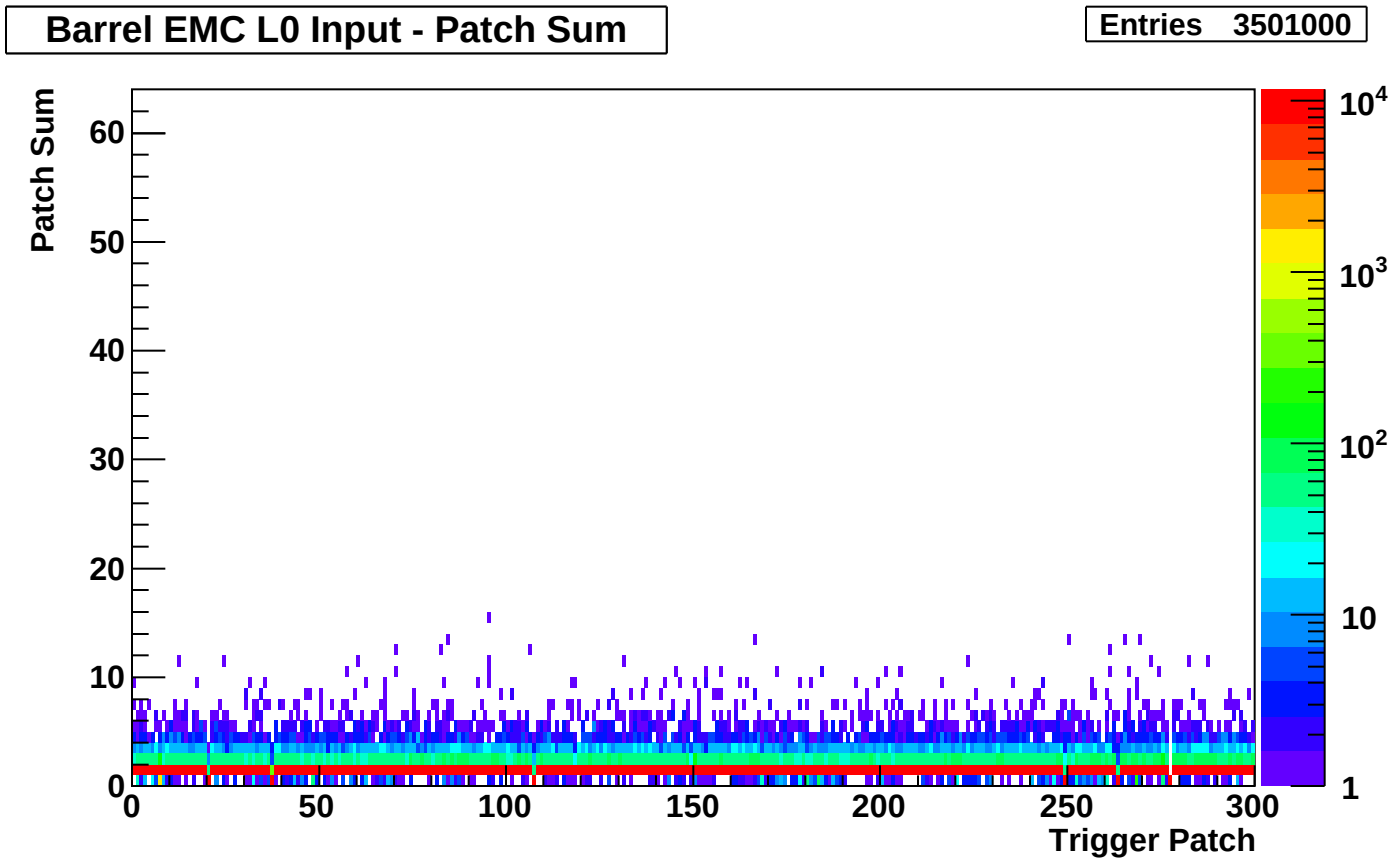
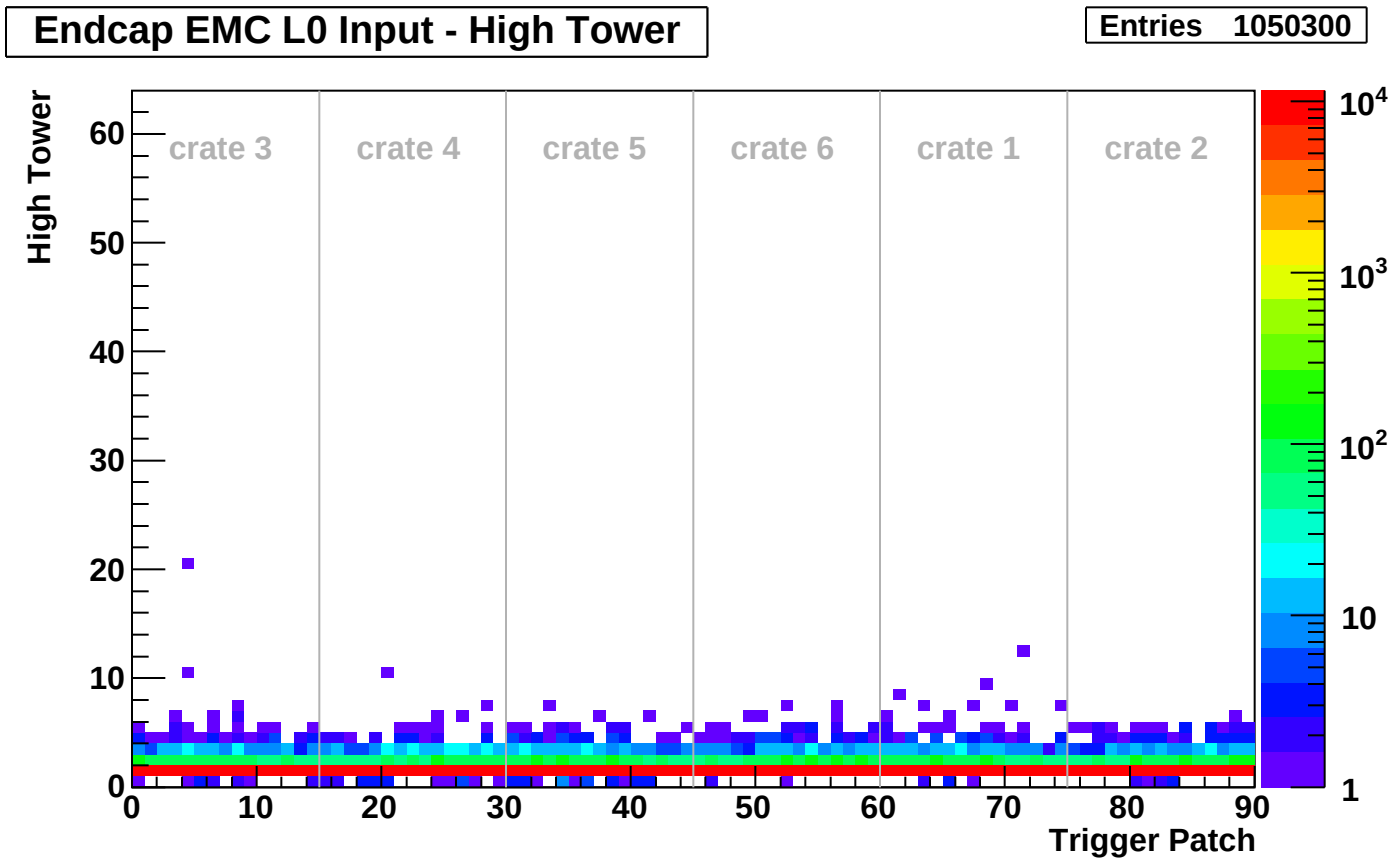
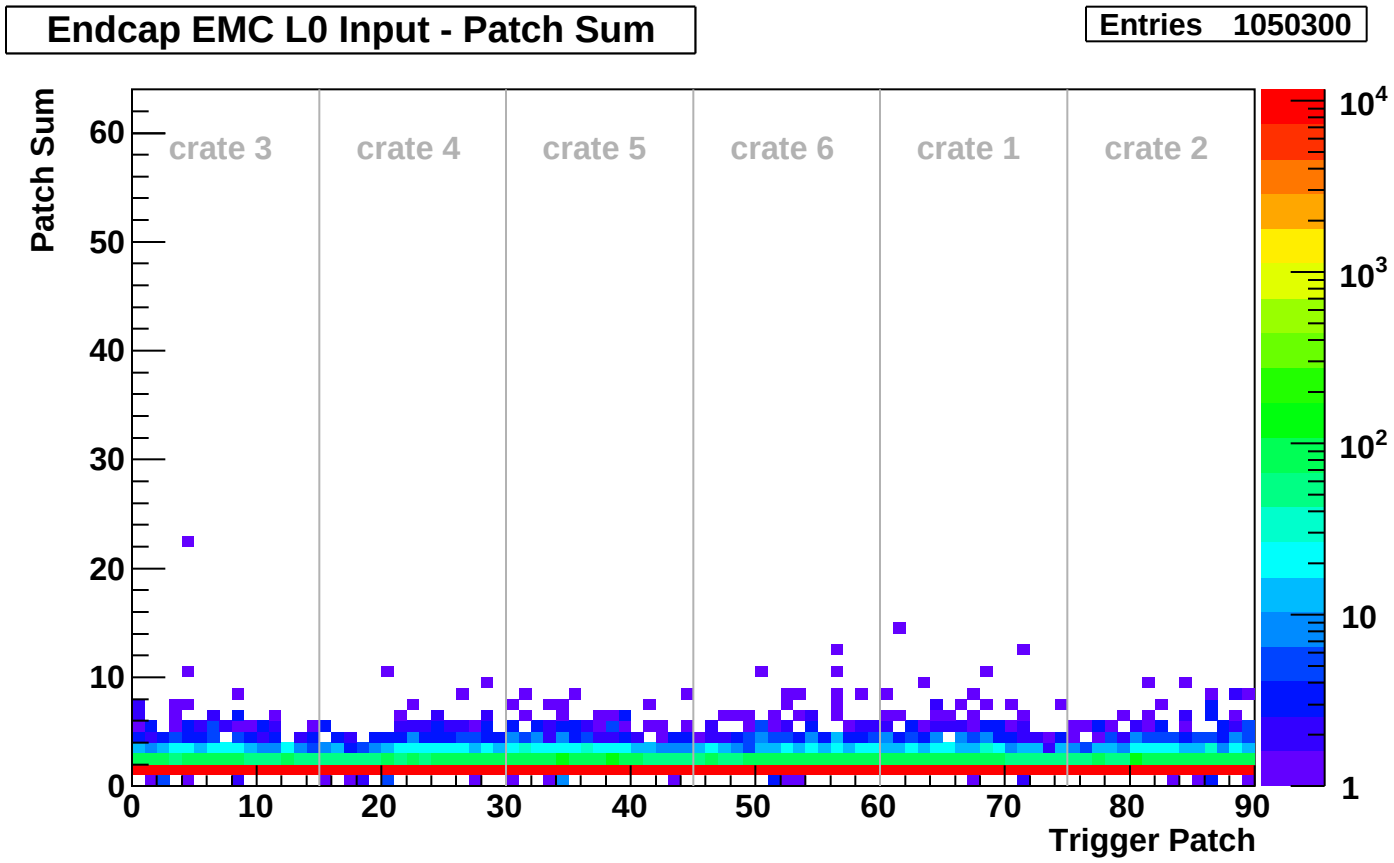
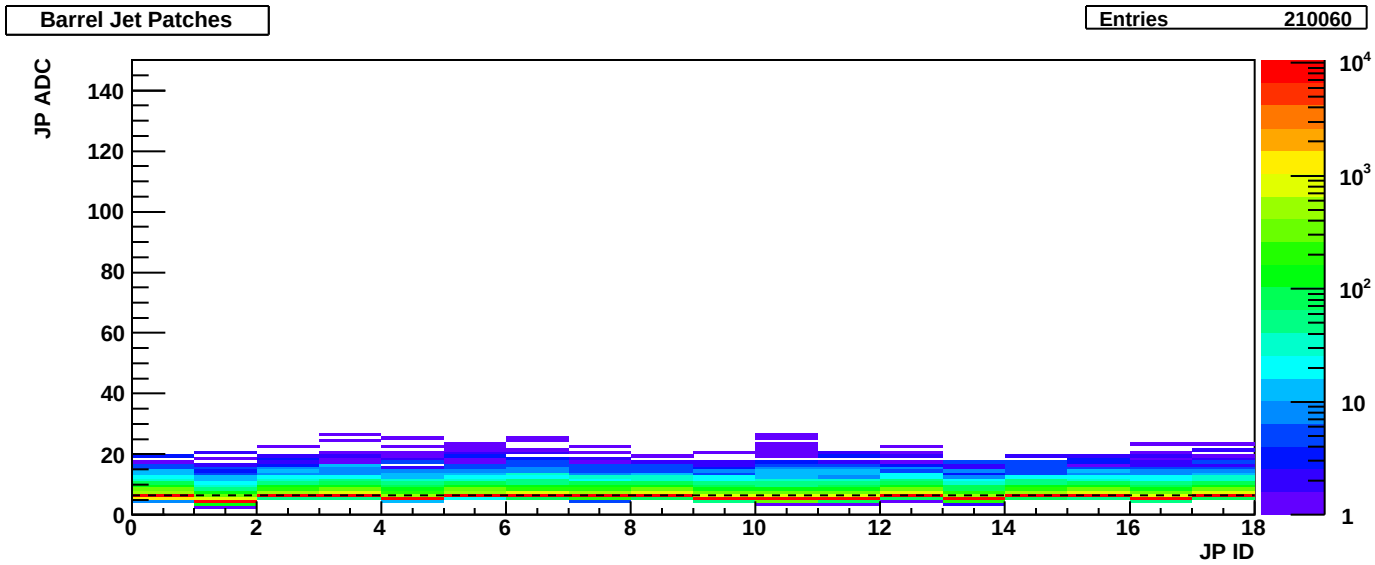
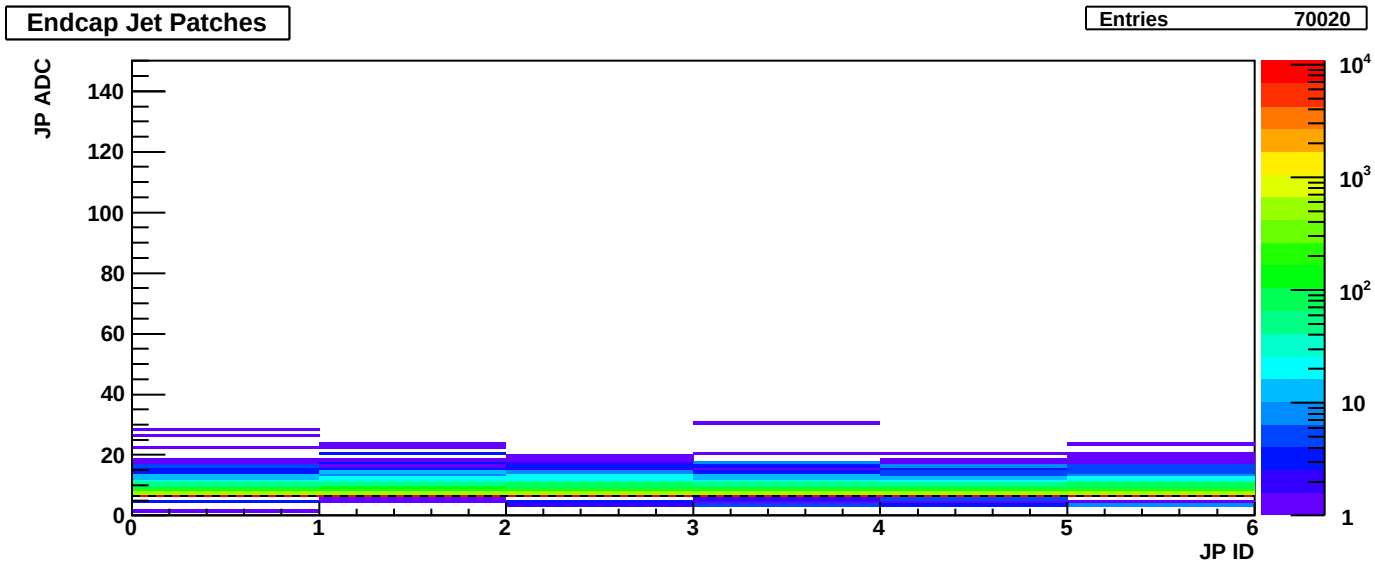

Barrel EMC L0 Input - High Tower
Entries 3501000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

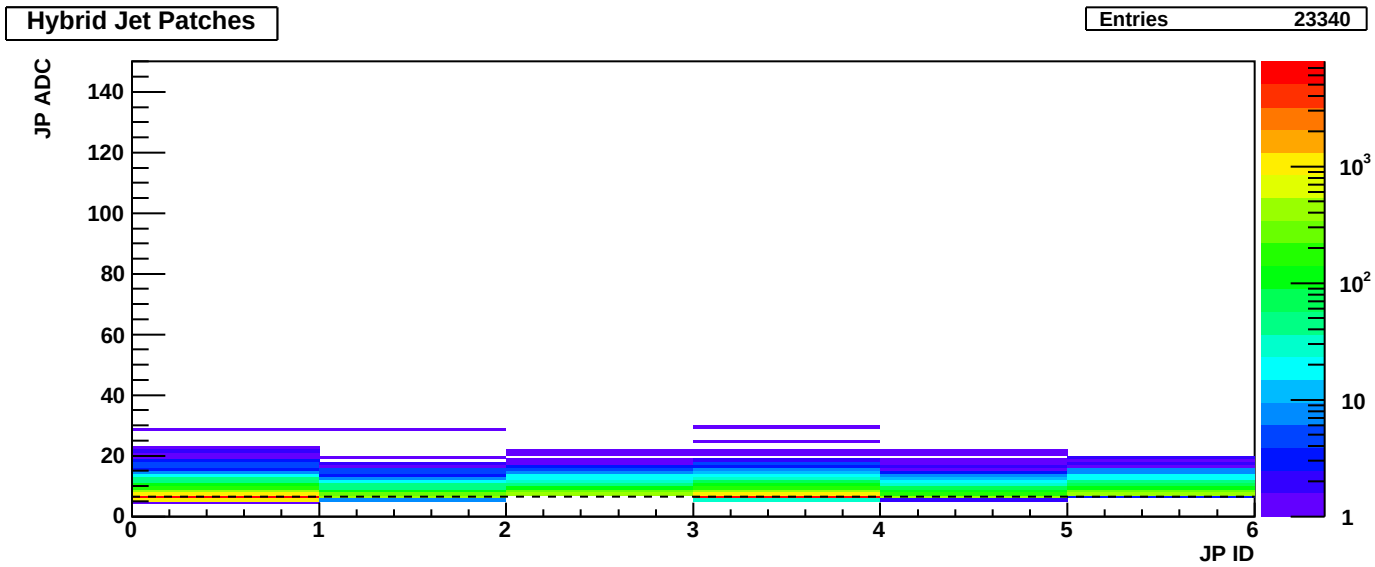

Barrel EMC L0 Input - Patch Sum
Entries 3501000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

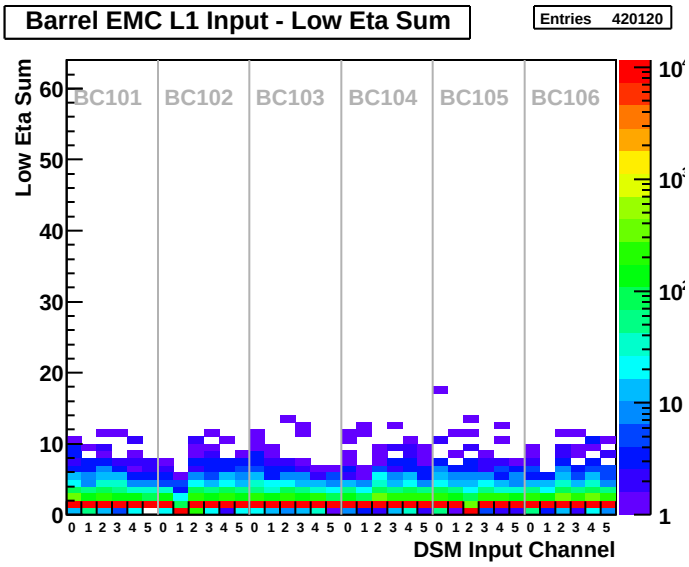

Endcap EMC L0 Input - High Tower
Entries 1050300
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

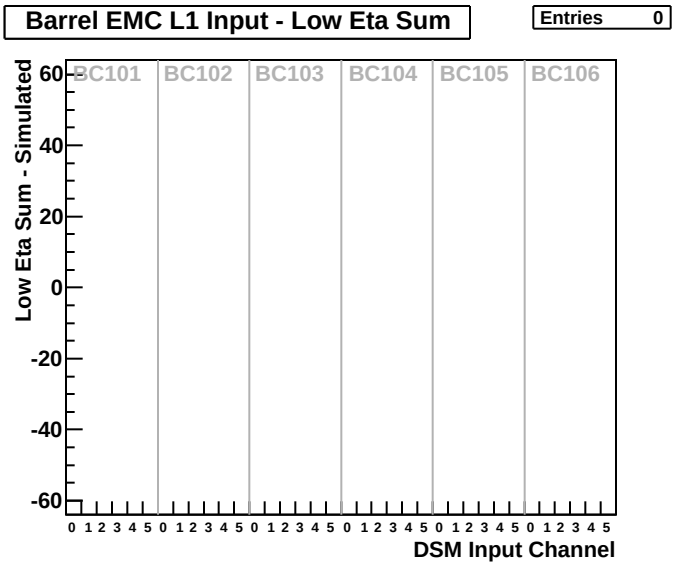

Endcap EMC L0 Input - Patch Sum
Entries 1050300
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

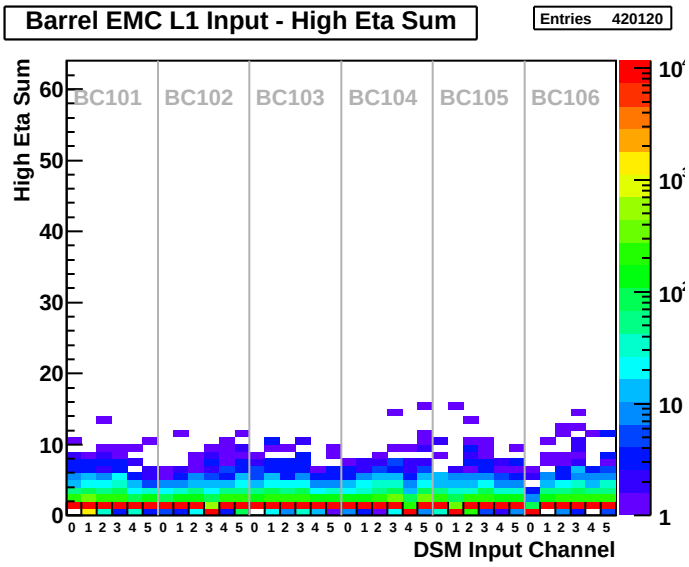

Barrel Jet Patches
Entries 210060
JP ADC
JP ID

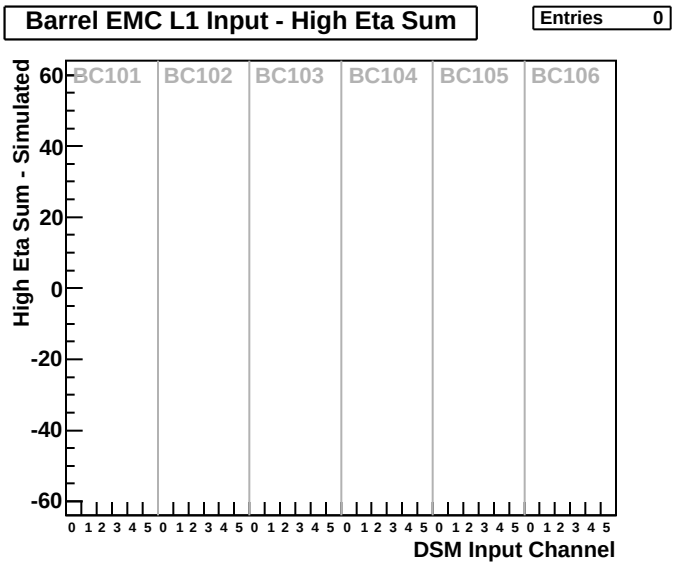

Endcap Jet Patches
Entries 70020
JP ADC
JP ID

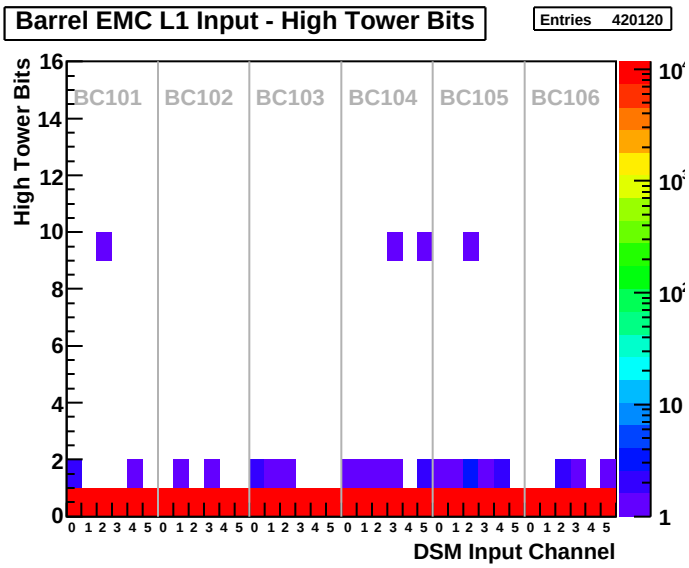

Hybrid Jet Patches
Entries 23340
JP ADC
JP ID

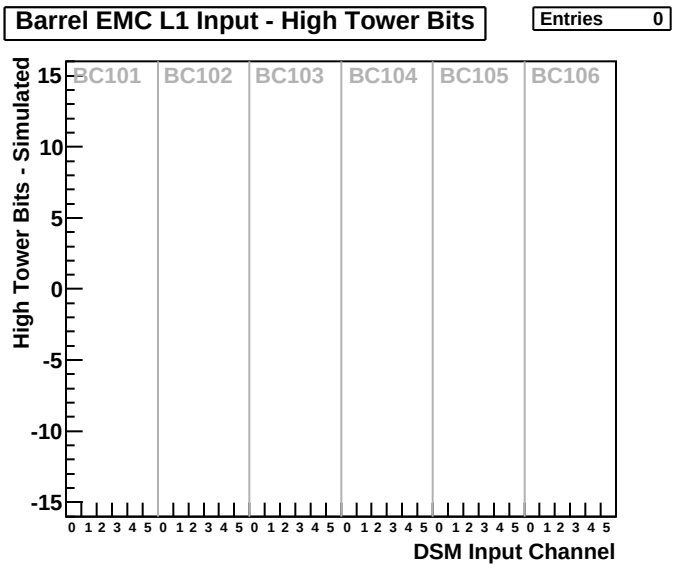

Barrel EMC L1 Input - Low Eta Sum
Entries 420120
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

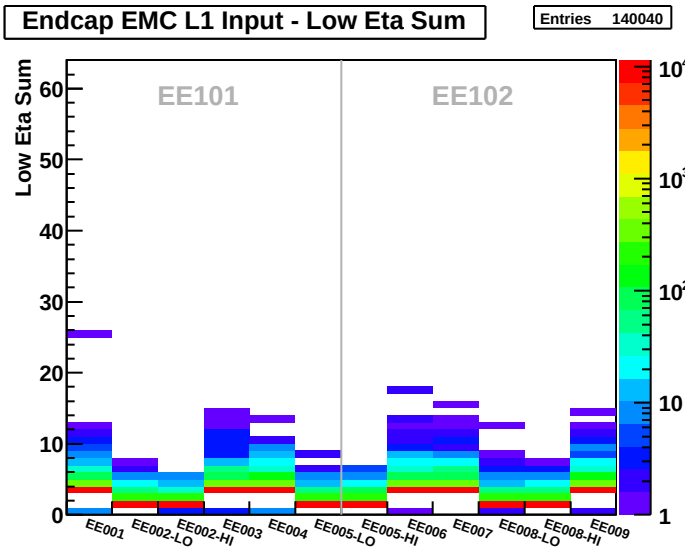

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

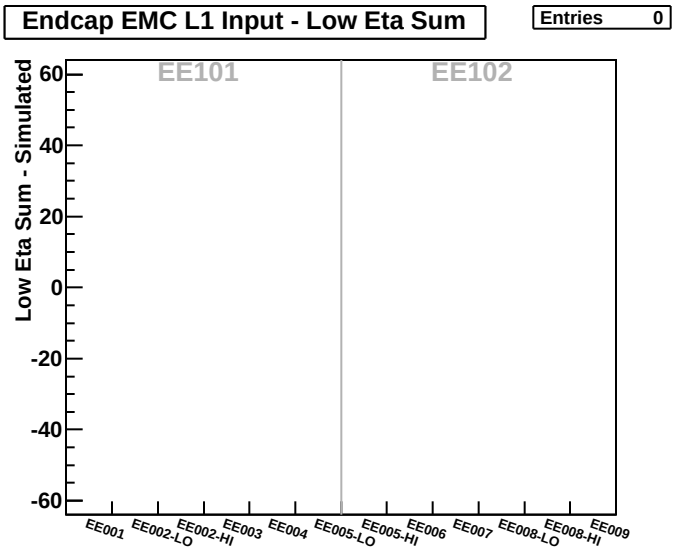

Barrel EMC L1 Input - High Eta Sum
Entries 420120
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

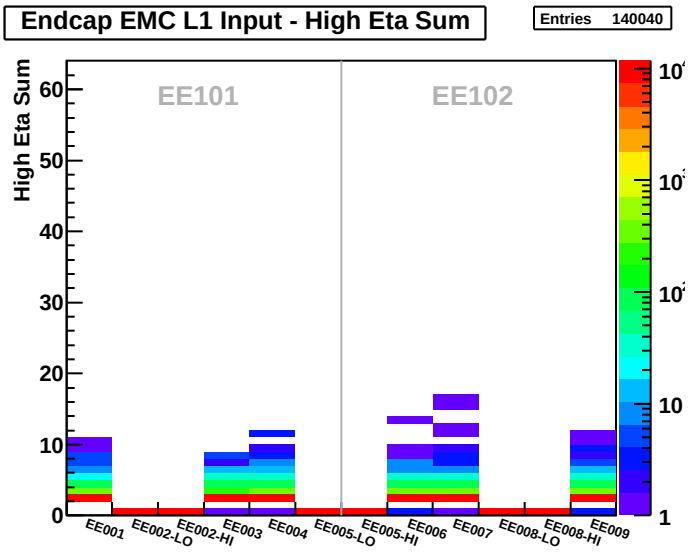

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

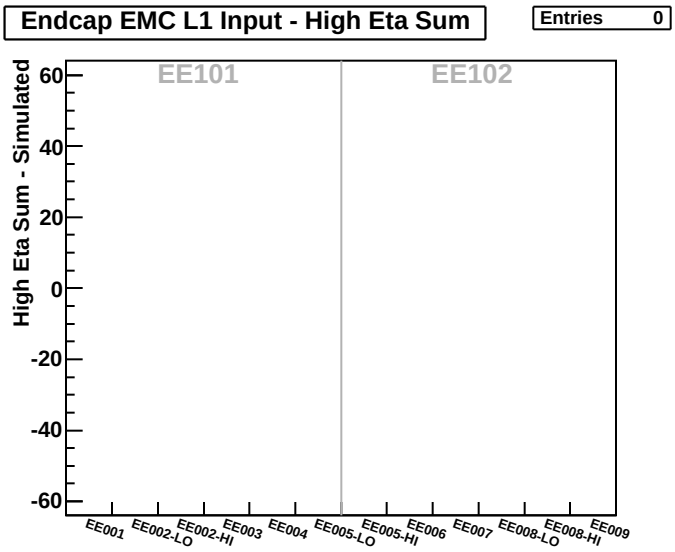

Barrel EMC L1 Input - High Tower Bits
Entries 420120
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

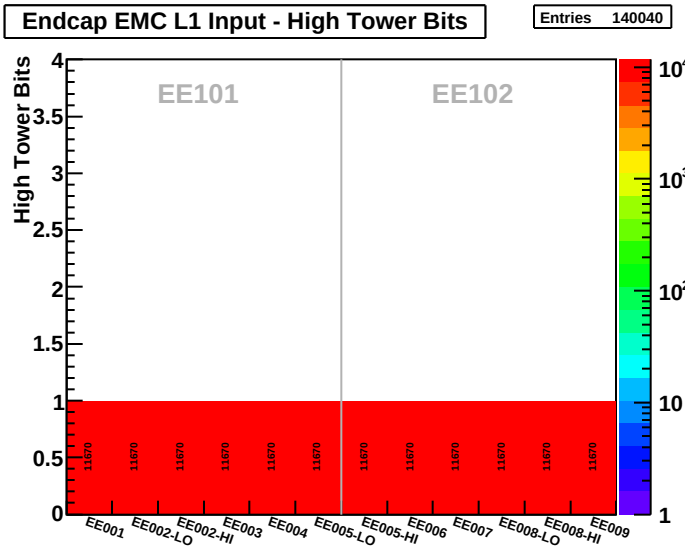

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

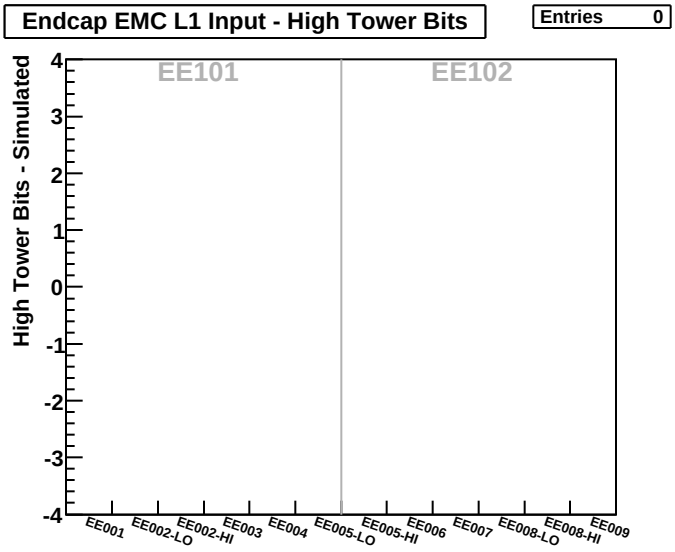

Endcap EMC L1 Input - Low Eta Sum
Entries 140040
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

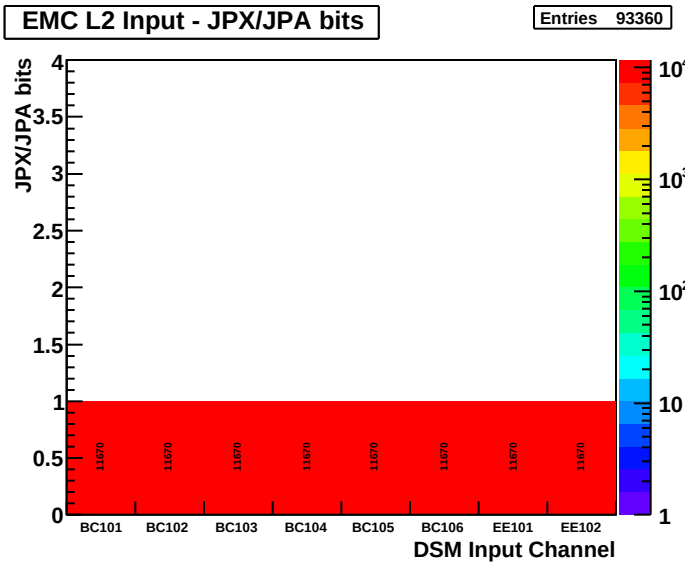

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

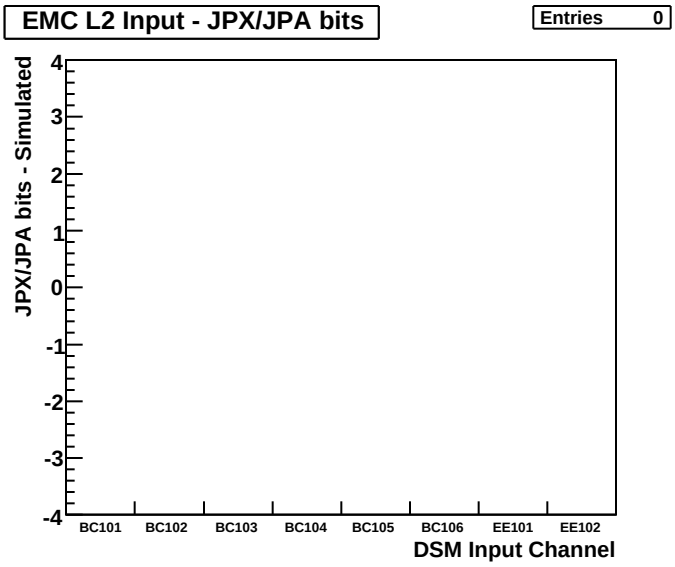

Endcap EMC L1 Input - High Eta Sum
Entries 140040
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

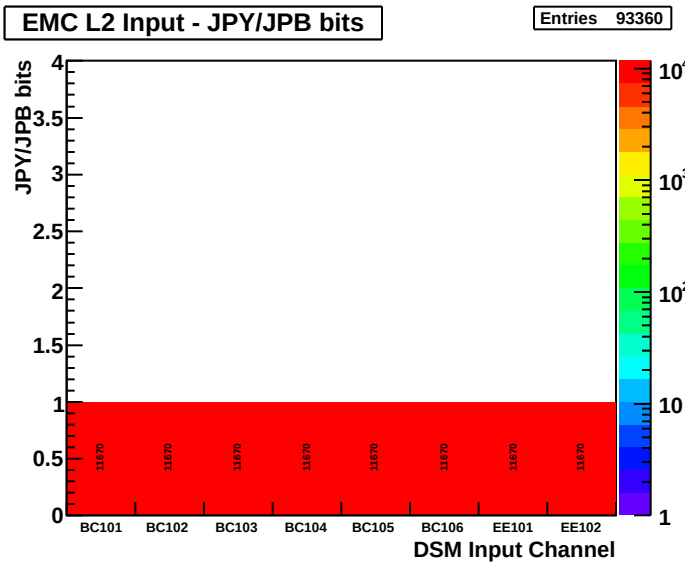

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

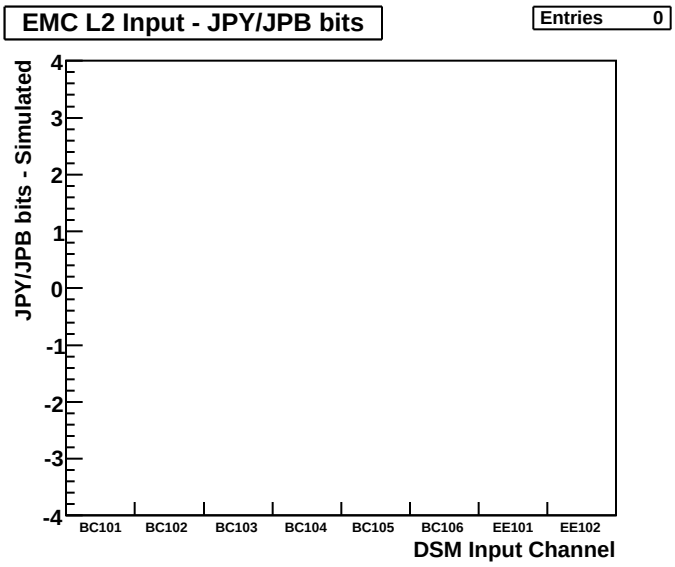

Endcap EMC L1 Input - High Tower Bits
Entries 140040
High Tower Bits
EE101
EE102
11670
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

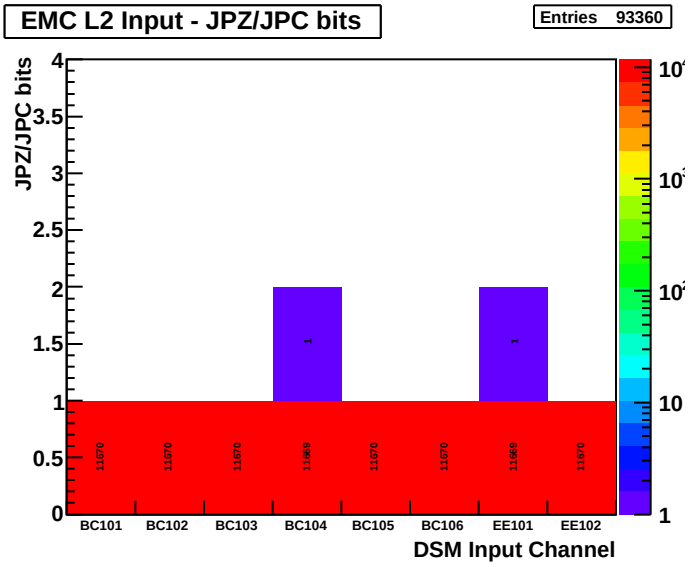

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

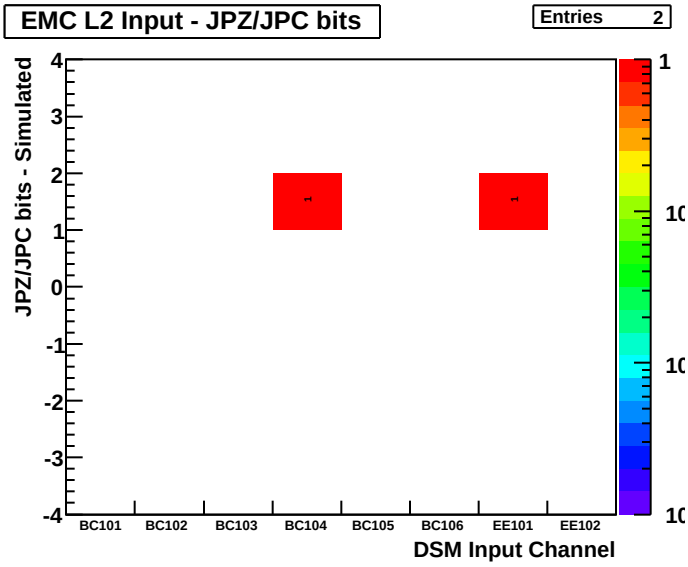

EMC L2 Input - JPX/JPA bits
Entries 93360
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

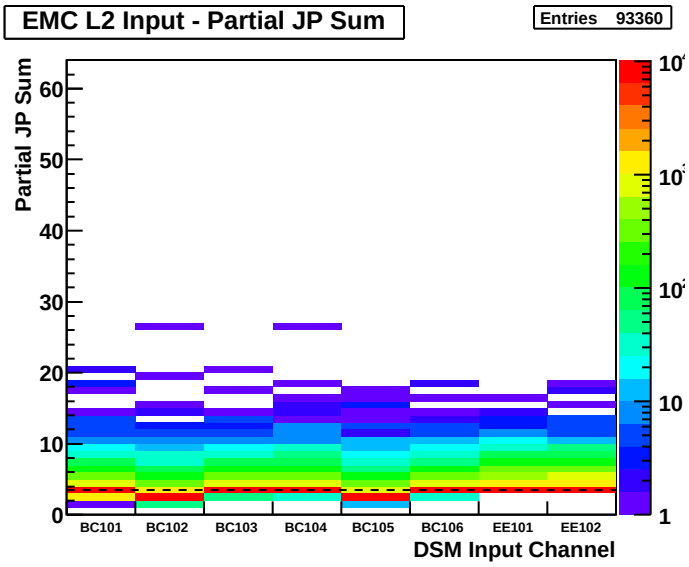

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

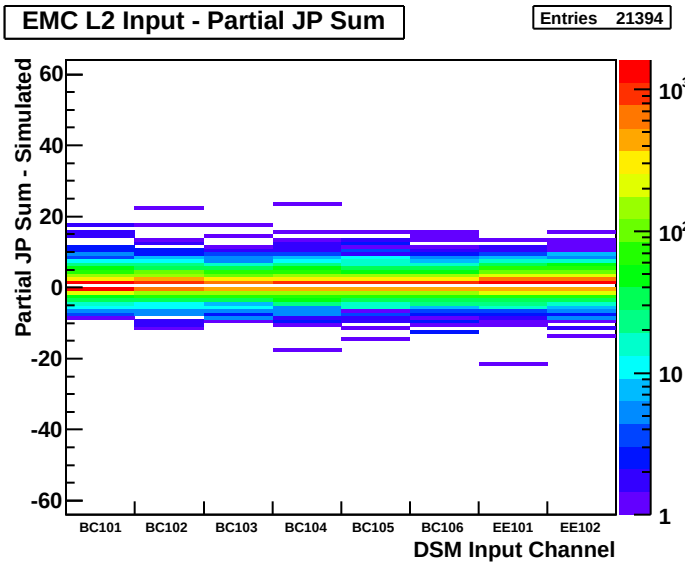

EMC L2 Input - JPY/JPB bits
Entries 93360
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

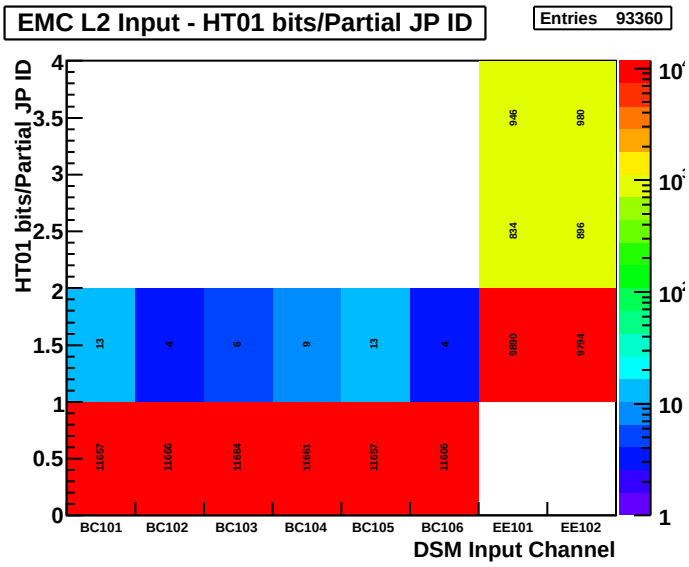

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

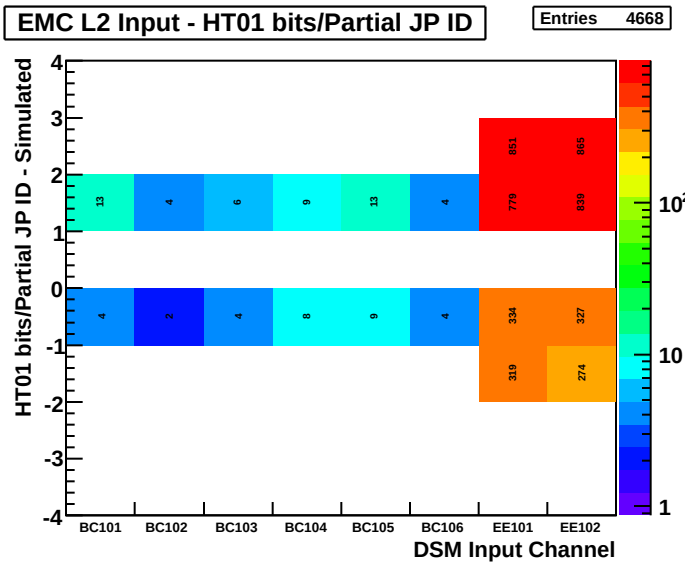

EMC L2 Input - JPZ/JPC bits
Entries 93360
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

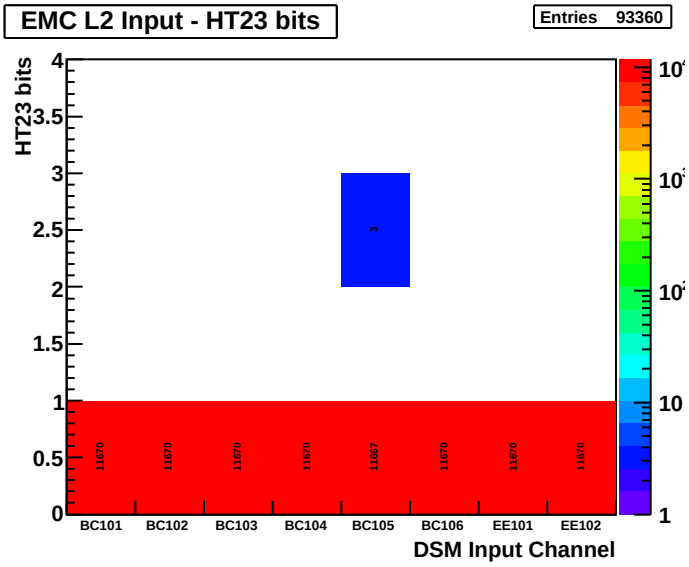

EMC L2 Input - JPZ/JPC bits
Entries 2
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

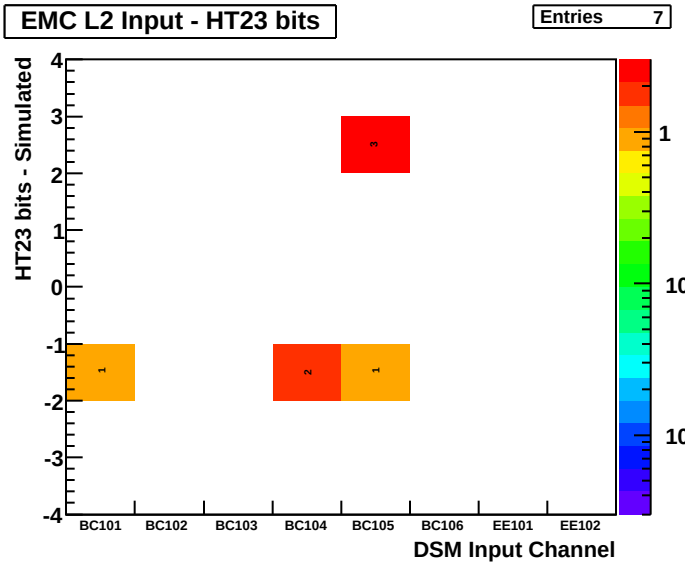

EMC L2 Input - Partial JP Sum
Entries 93360
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

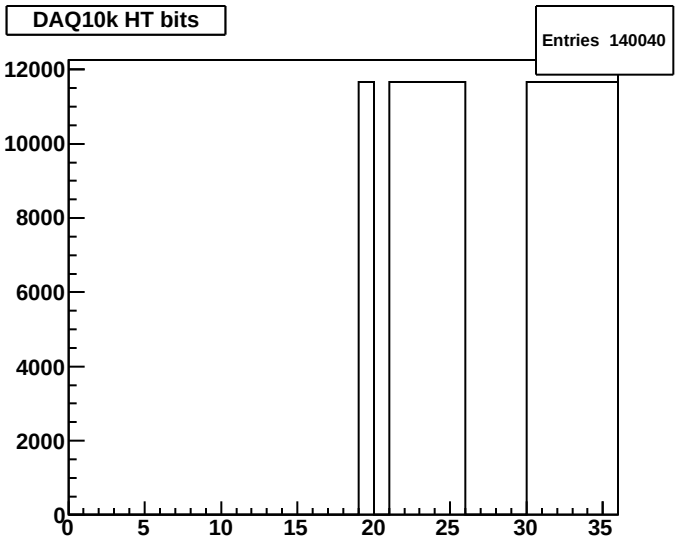

EMC L2 Input - Partial JP Sum
Entries 21394
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

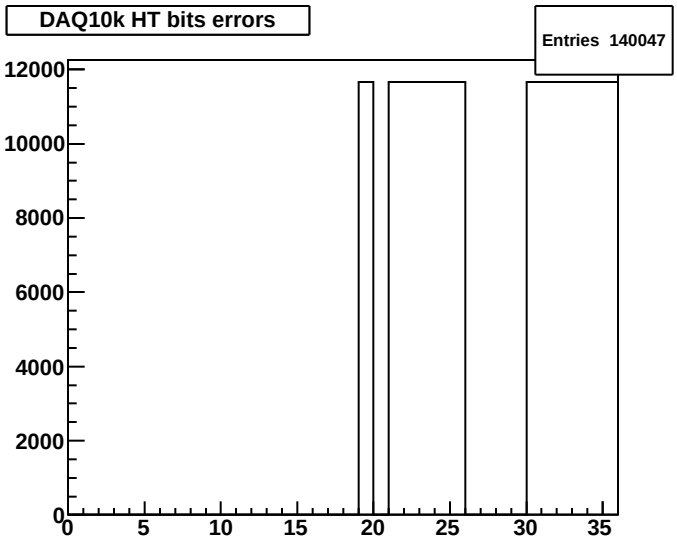

EMC L2 Input - HT01 bits/Partial JP ID
Entries 93360
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

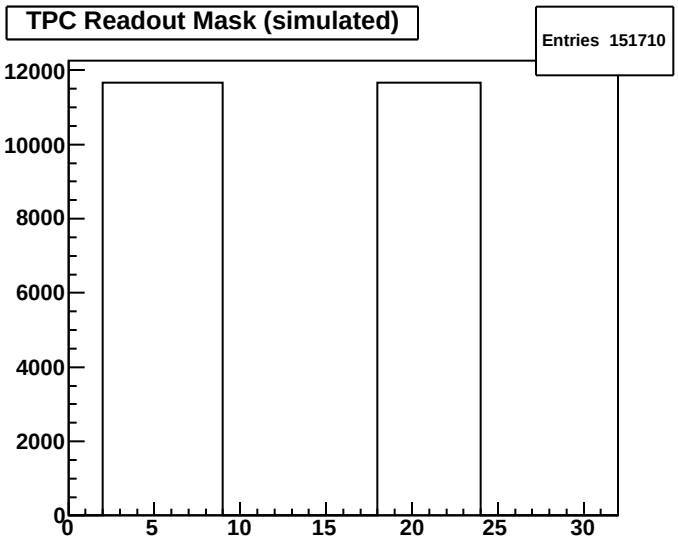

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4668
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

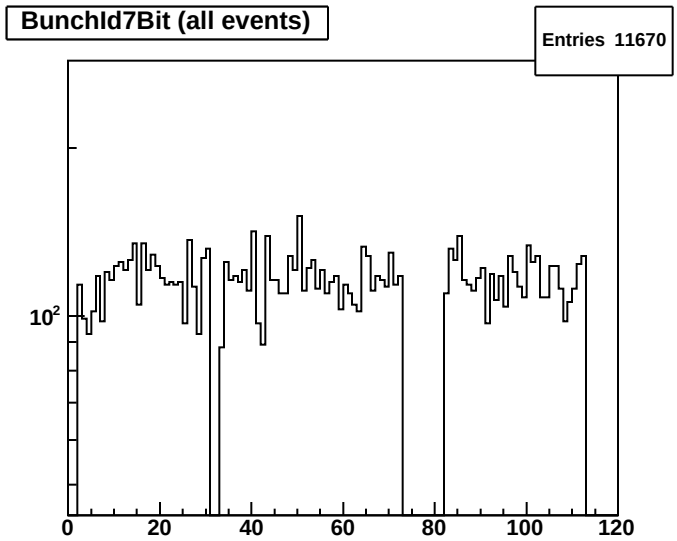

EMC L2 Input - HT23 bits
Entries 93360
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

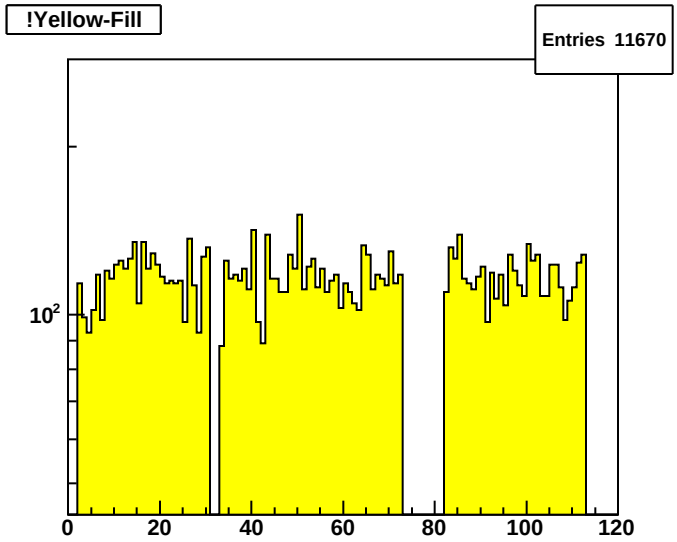

EMC L2 Input - HT23 bits
Entries 7
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

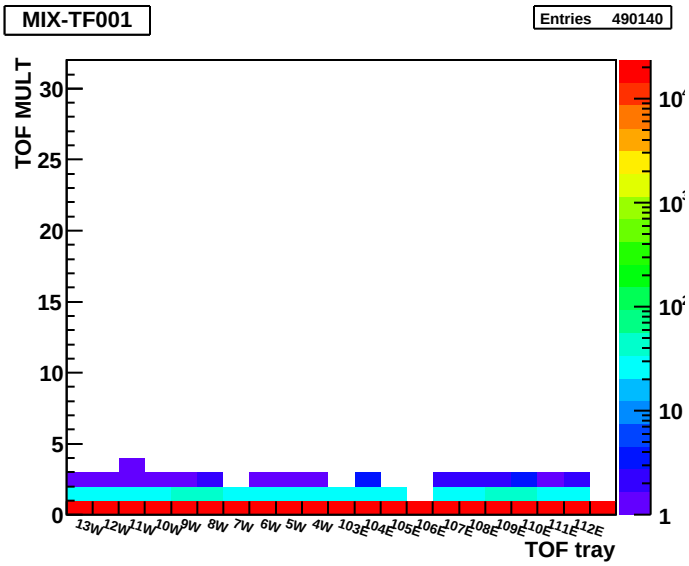

DAQ10k HT bits
Entries 140040
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

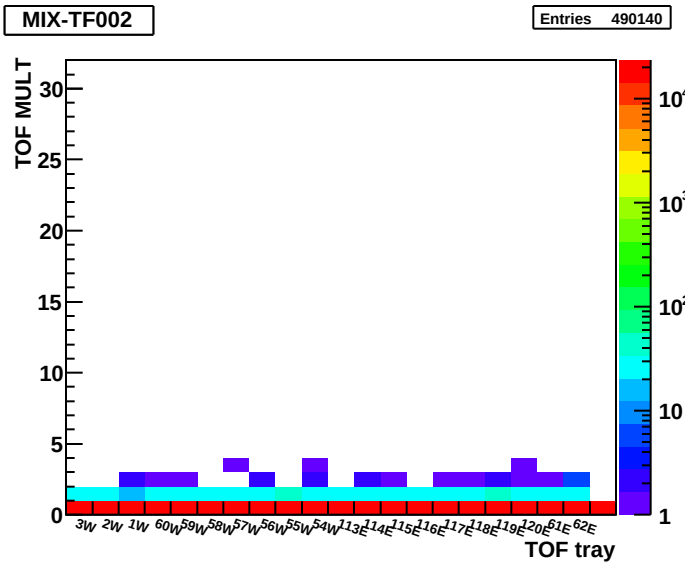

DAQ10k HT bits errors
Entries 140047
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

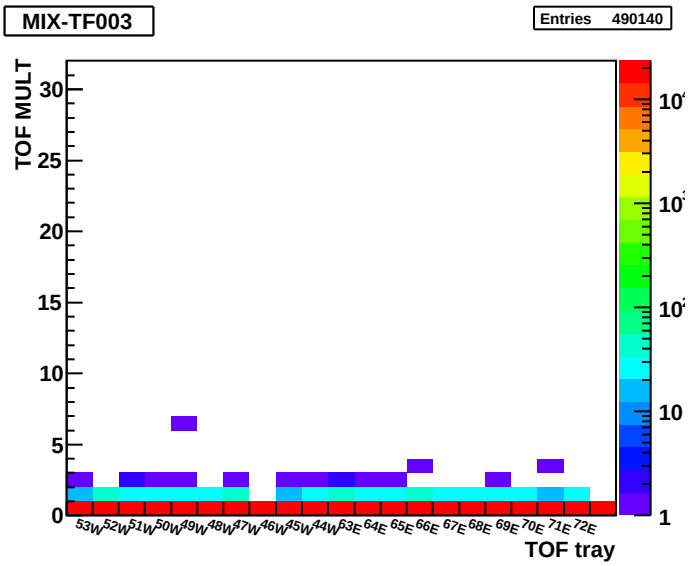

TPC Readout Mask (simulated)
Entries 151710
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

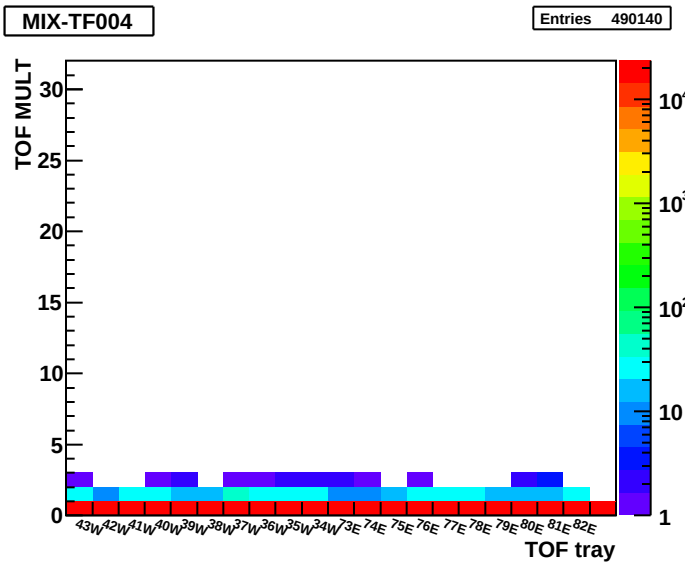

BunchId7Bit (all events)
Entries 11670
10^2
0 20 40 60 80 100 120

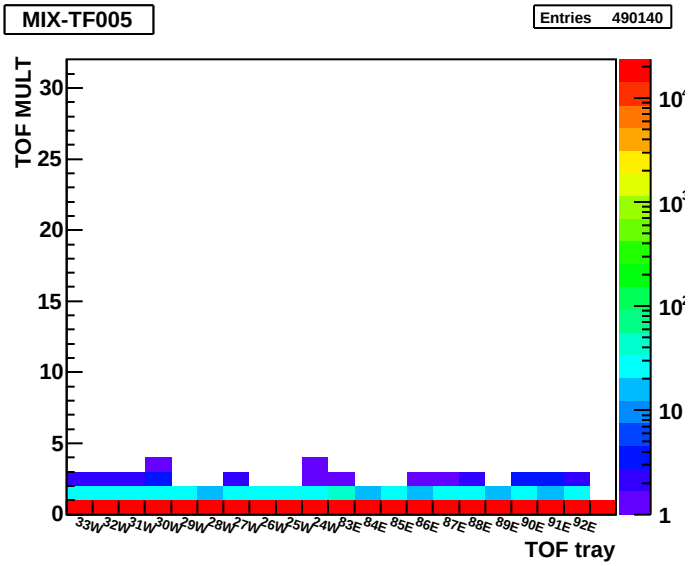

!Yellow-Fill
Entries 11670
10^2
0 20 40 60 80 100 120

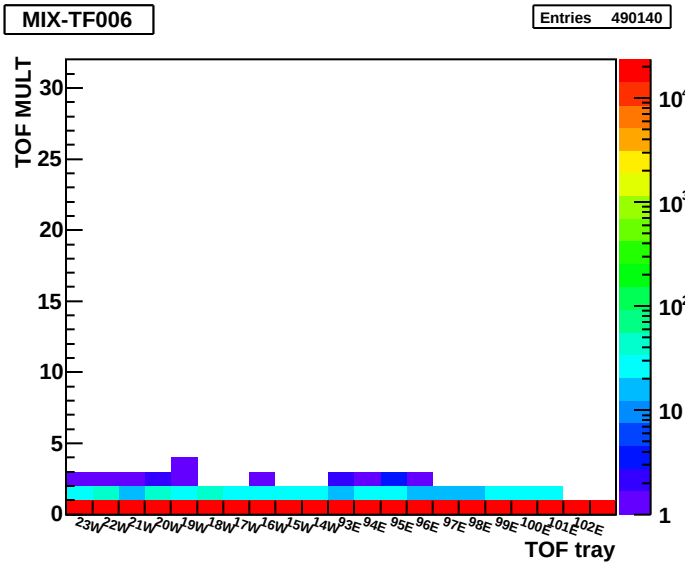

MIX-TF001
Entries 490140
TOF MULT
TOF tray

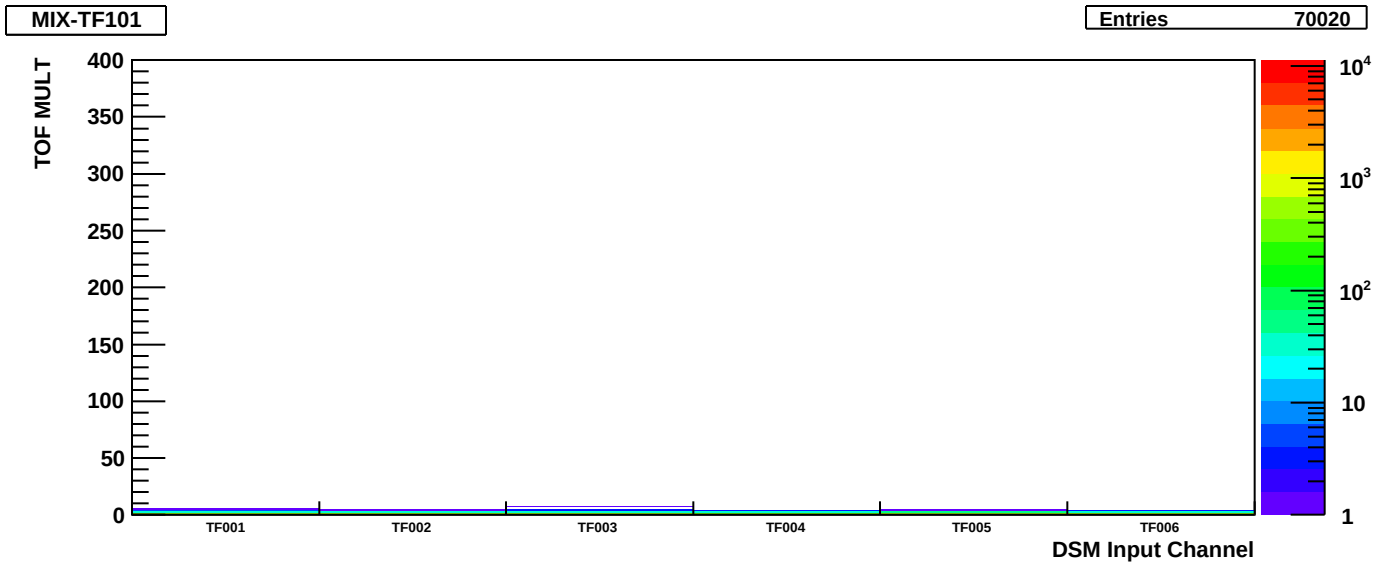

MIX-TF002
Entries 490140
TOF MULT
TOF tray

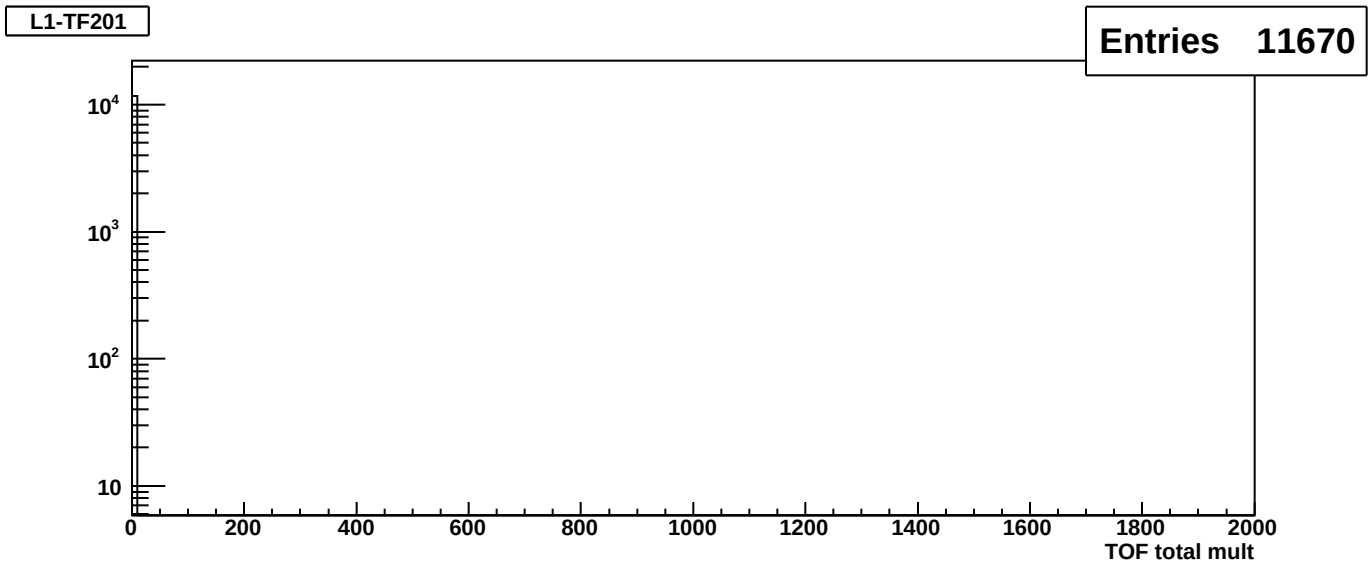

MIX-TF003
Entries 490140
TOF MULT
TOF tray

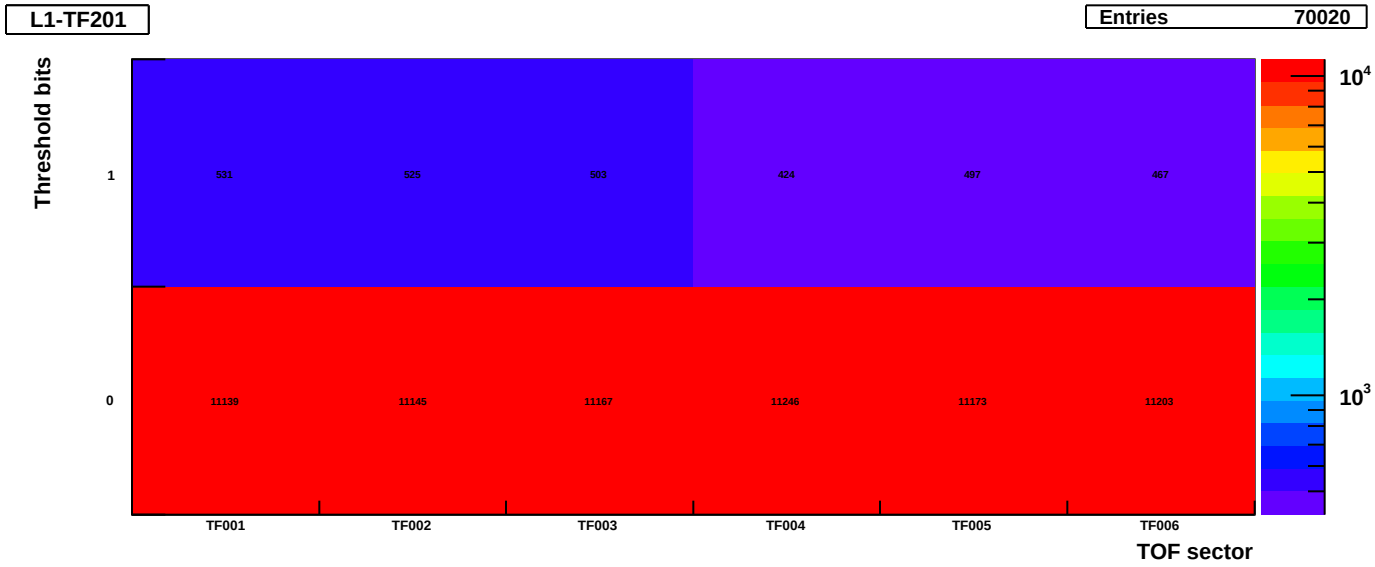

MIX-TF004
Entries 490140
TOF MULT
TOF tray

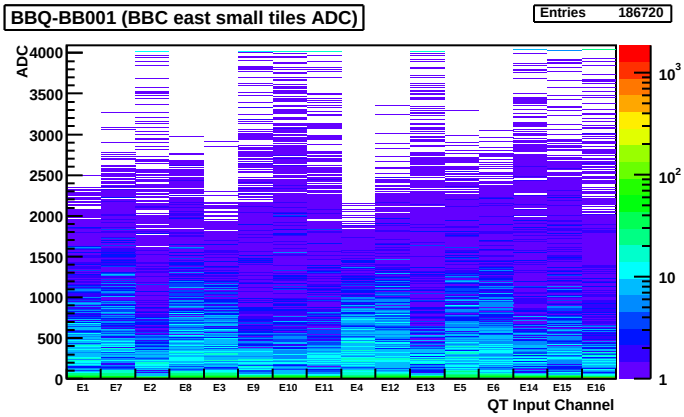

MIX-TF005
Entries 490140
TOF MULT
TOF tray

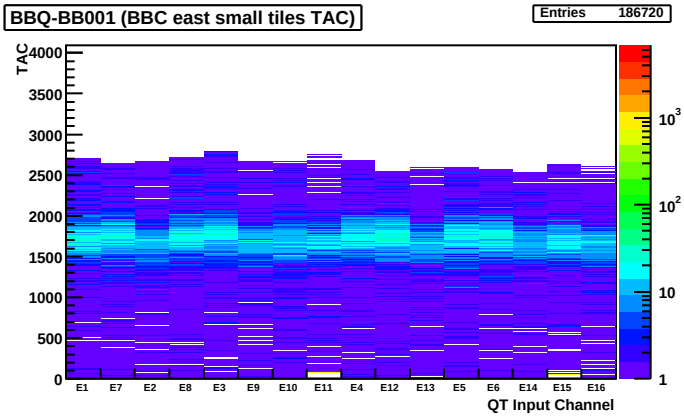

MIX-TF006
Entries 490140
TOF MULT
TOF tray

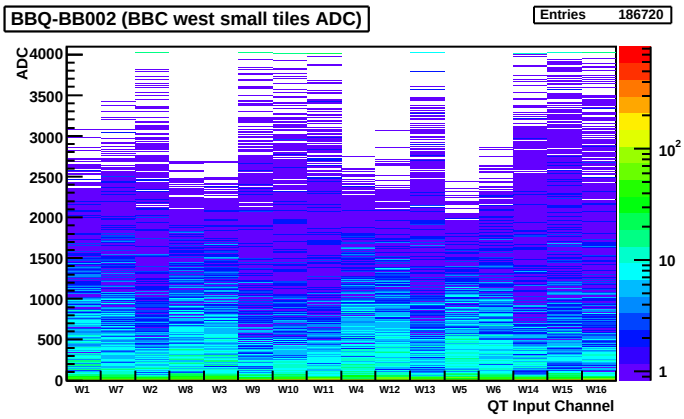

MIX-TF101
Entries 70020
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

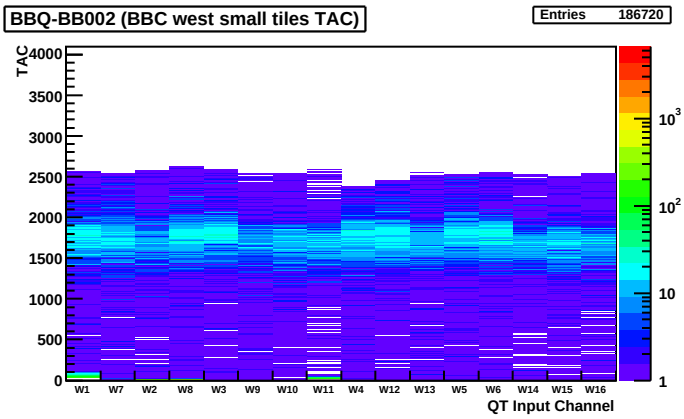

L1-TF201
Entries 11670
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

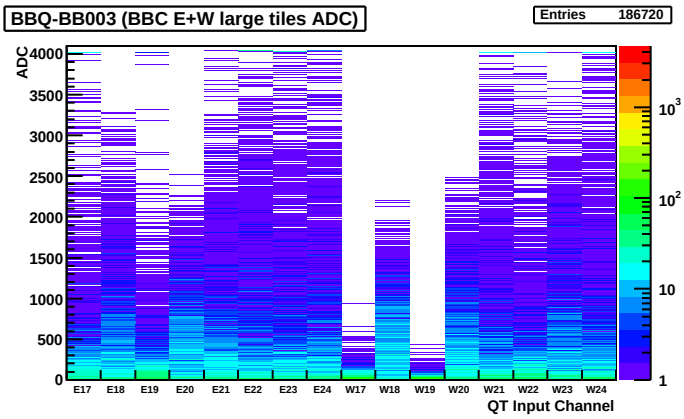

L1-TF201
Entries 70020
Threshold bits
1
0
531
525
503
424
497
467
11139
11145
11167
11246
11173
11203
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

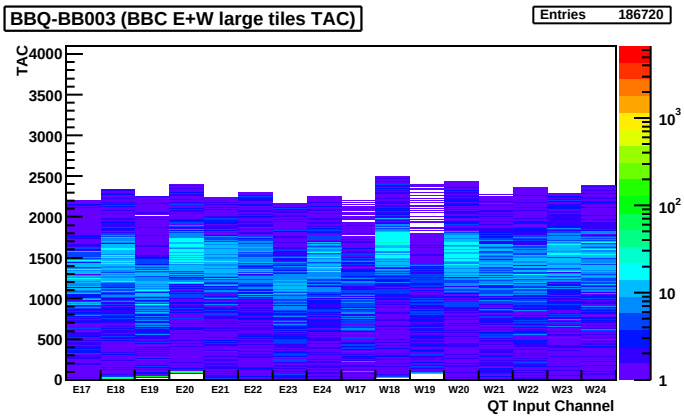

BBQ-BB001 (BBC east small tiles ADC)
Entries 186720
ADC
QT Input Channel

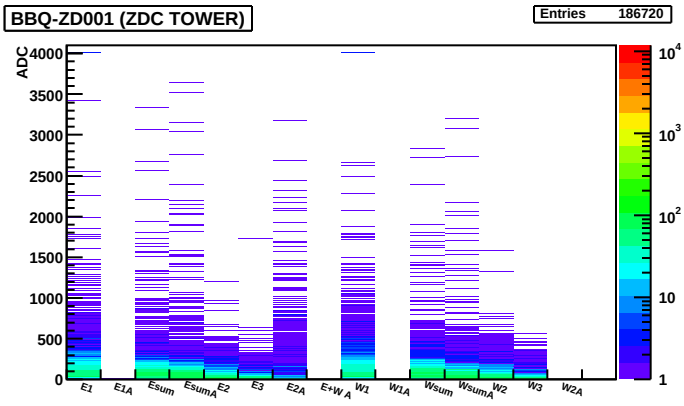

BBQ-BB001 (BBC east small tiles TAC)
Entries 186720
TAC
QT Input Channel

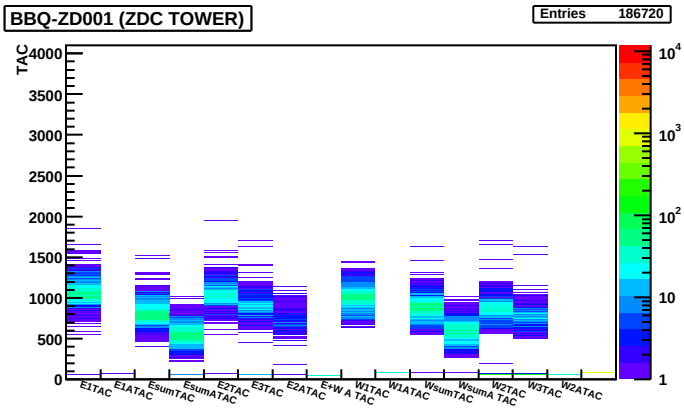

BBQ-BB002 (BBC west small tiles ADC)
Entries 186720
ADC
QT Input Channel

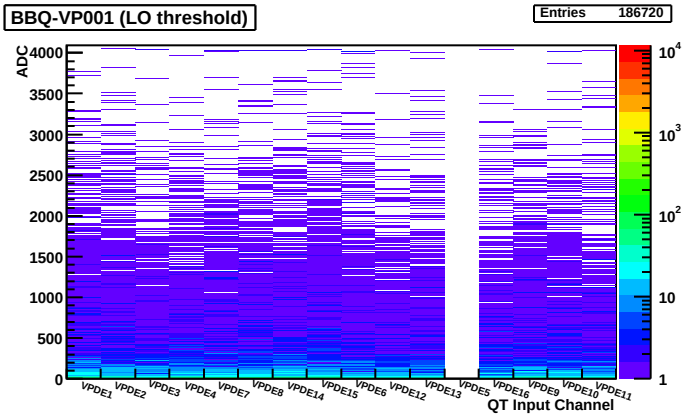

BBQ-BB002 (BBC west small tiles TAC)
Entries 186720
TAC
QT Input Channel

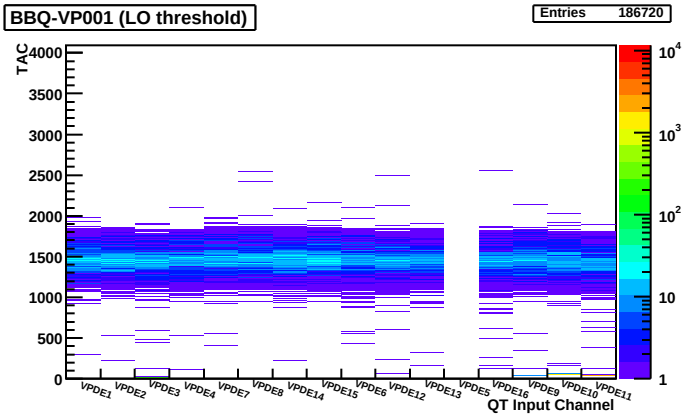

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 186720
ADC
QT Input Channel

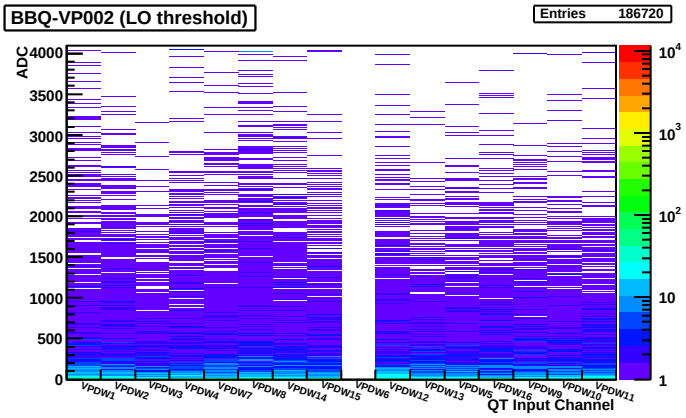

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 186720
TAC
QT Input Channel

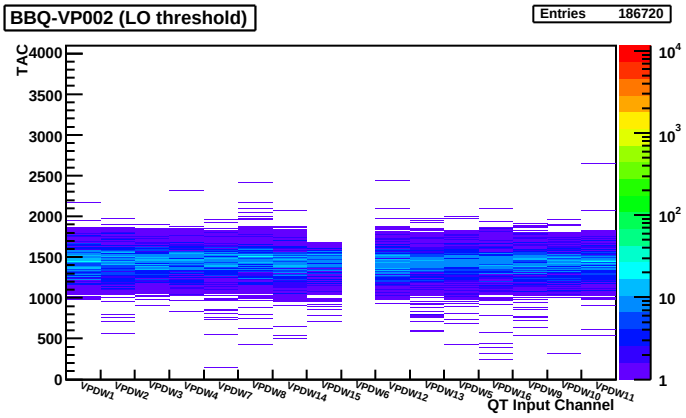

BBQ-ZD001 (ZDC TOWER)
Entries 186720
ADC

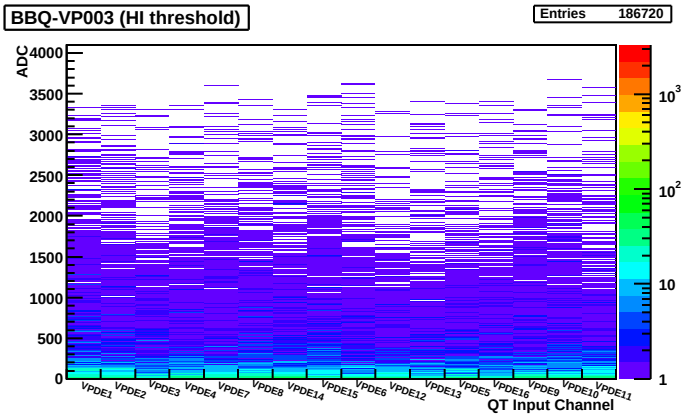

BBQ-ZD001 (ZDC TOWER)
Entries 186720
TAC

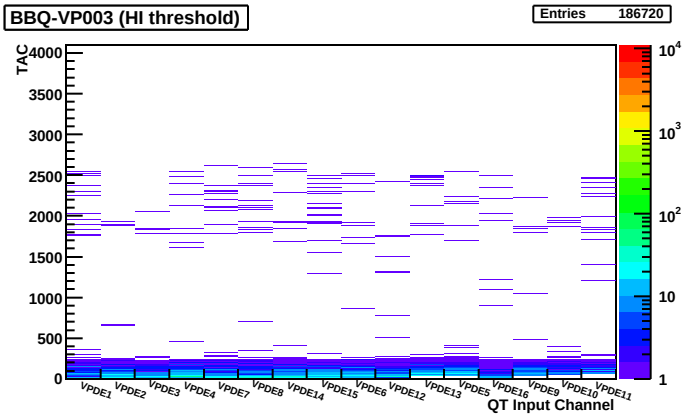

BBQ-VP001 (LO threshold)
Entries 186720
ADC
QT Input Channel

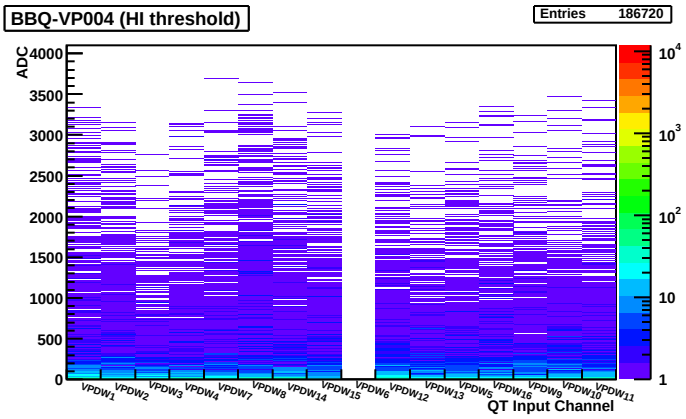

BBQ-VP001 (LO threshold)
Entries 186720
TAC
QT Input Channel

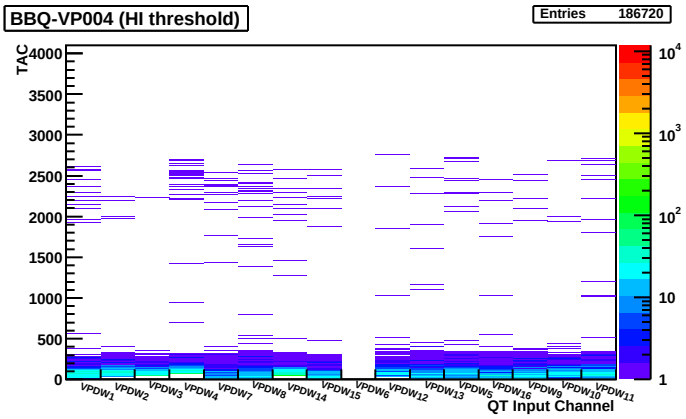

BBQ-VP002 (LO threshold)
Entries 186720
ADC
QT Input Channel

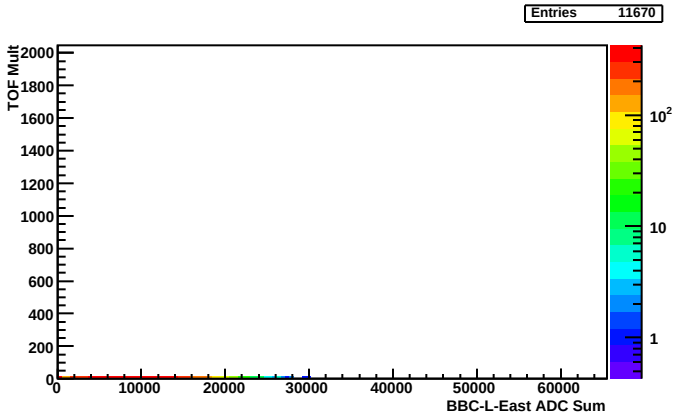

BBQ-VP002 (LO threshold)
Entries 186720
TAC
QT Input Channel

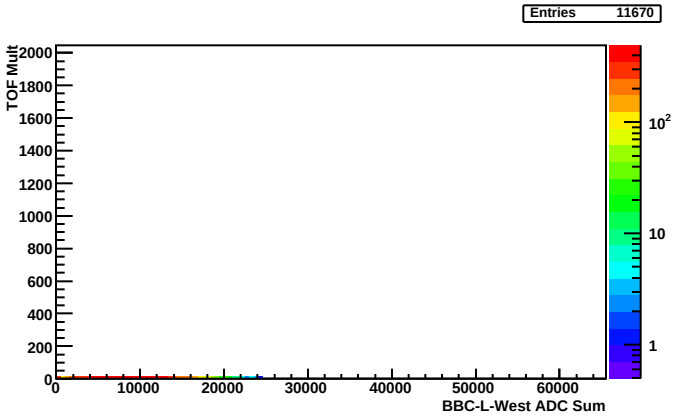

BBQ-VP003 (HI threshold)
Entries 186720
ADC
QT Input Channel

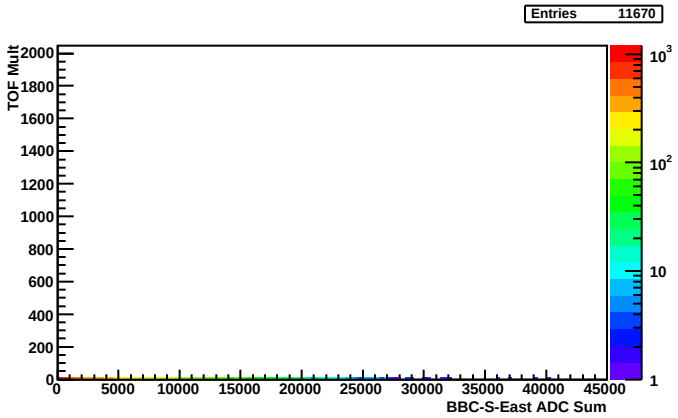

BBQ-VP003 (HI threshold)
Entries 186720
TAC
QT Input Channel

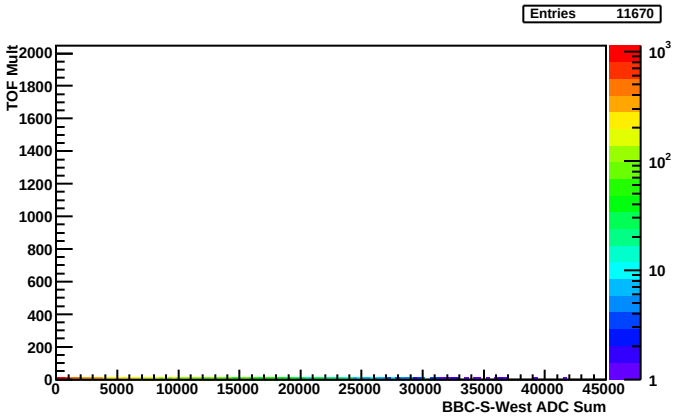

BBQ-VP004 (HI threshold)
Entries 186720
ADC
QT Input Channel

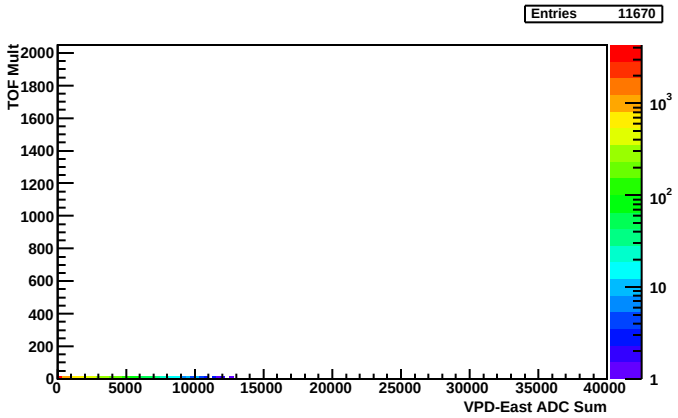

BBQ-VP004 (HI threshold)
Entries 186720
TAC
QT Input Channel

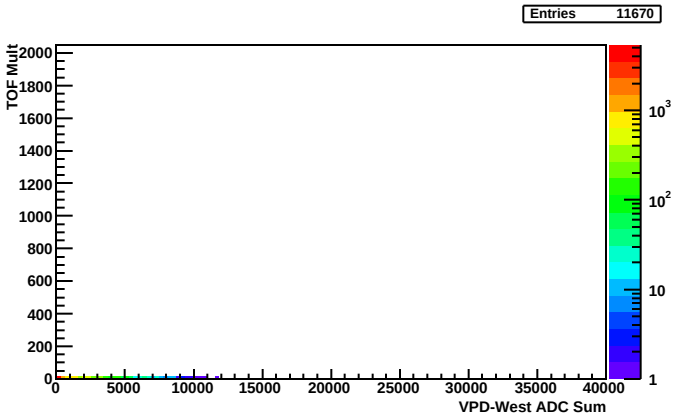

Entries 11670
TOF Mult
BBC-L-East ADC Sum

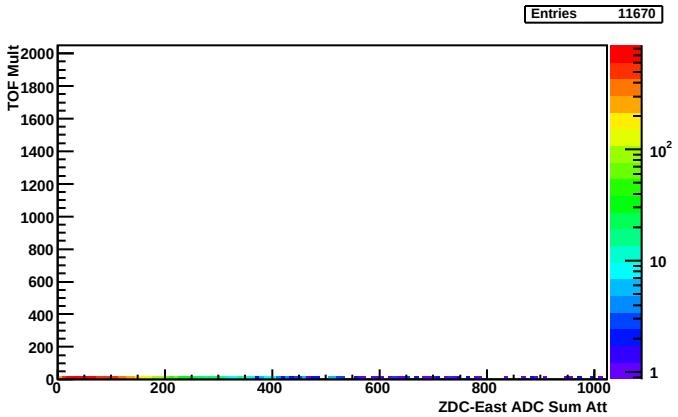

Entries 11670
TOF Mult
BBC-L-West ADC Sum

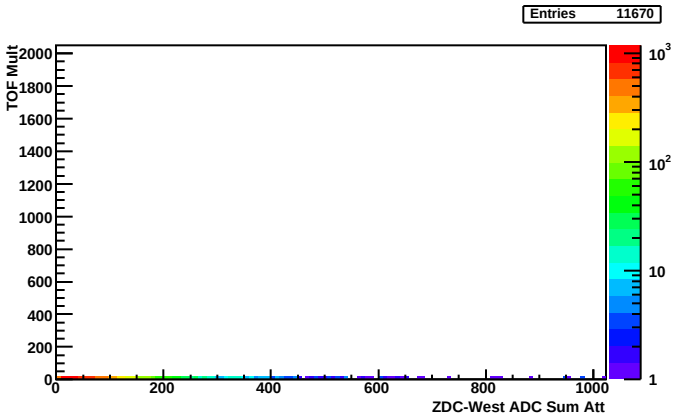

Entries 11670
TOF Mult
BBC-S-East ADC Sum

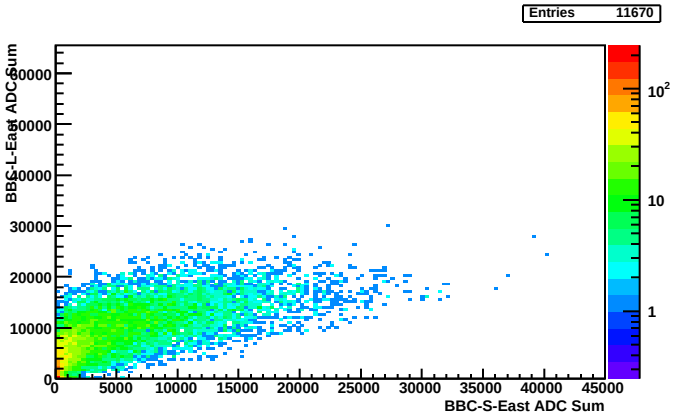

Entries 11670
TOF Mult
BBC-S-West ADC Sum

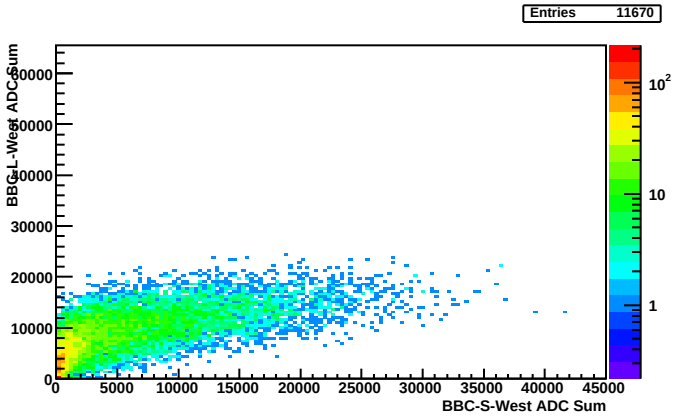

Entries 11670
TOF Mult
VPD-East ADC Sum

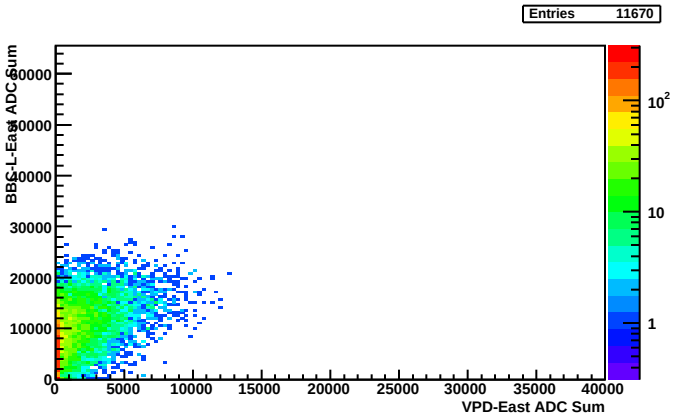

Entries 11670
TOF Mult
VPD-West ADC Sum

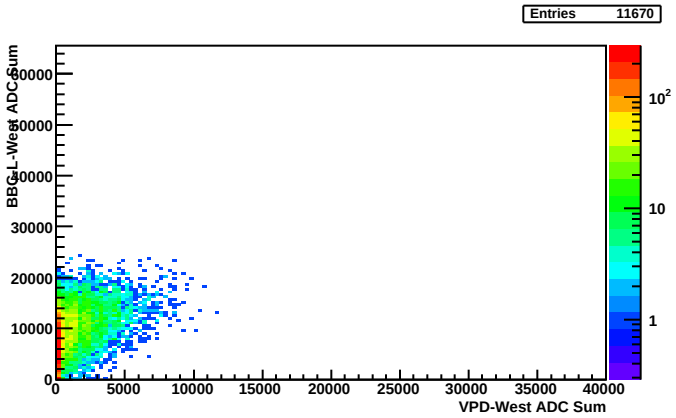

Entries 11670
TOF Mult
ZDC-East ADC Sum Att

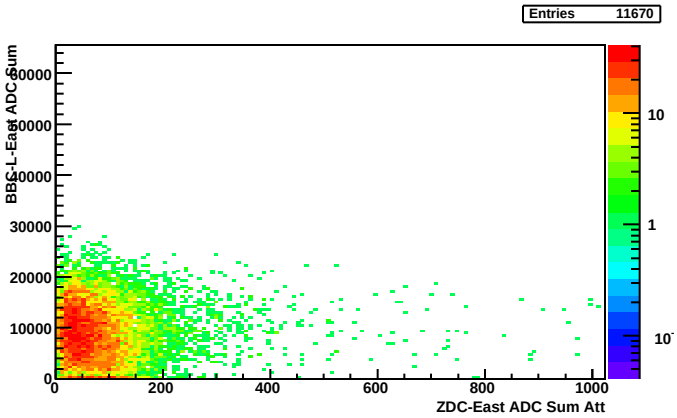

Entries 11670
TOF Mult
ZDC-West ADC Sum Att

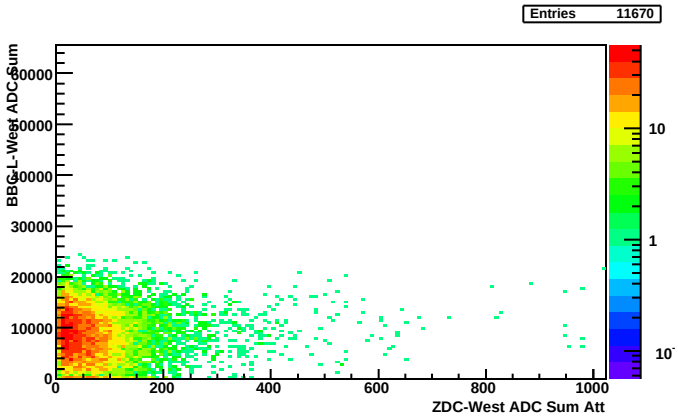

Entries 11670
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 11670
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 11670
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 11670
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 11670
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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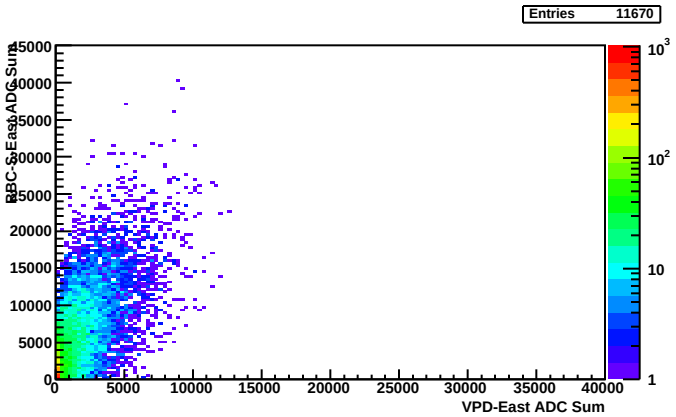
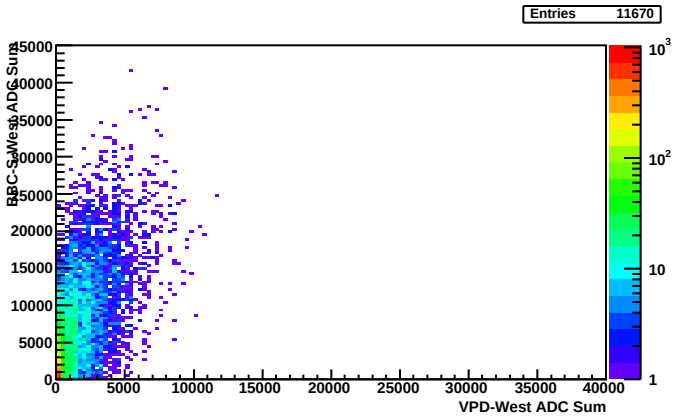
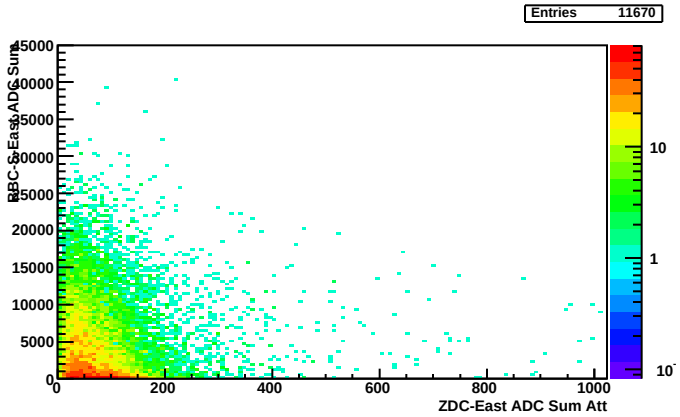
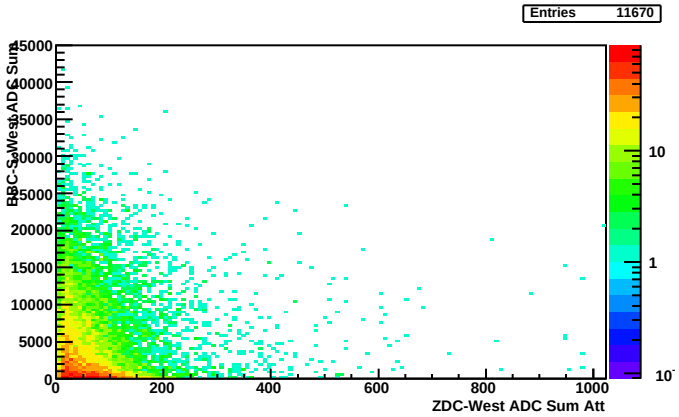
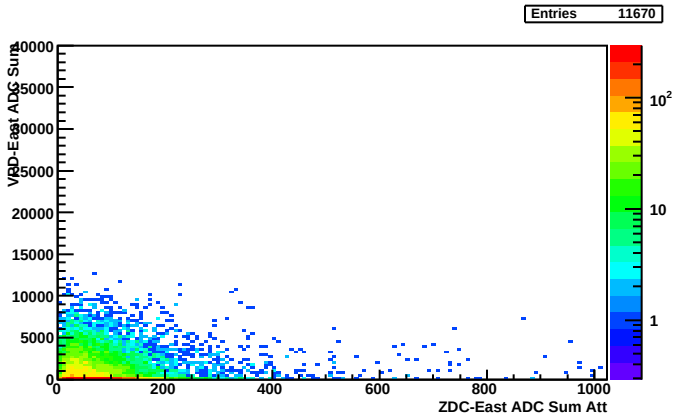
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

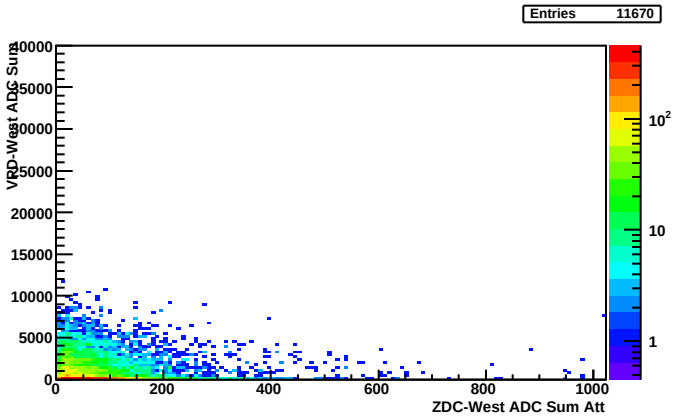

Entries 11670
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 11670
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 11670
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 11670
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 11670
VPD-East ADC Sum
ZDC-East ADC Sum Att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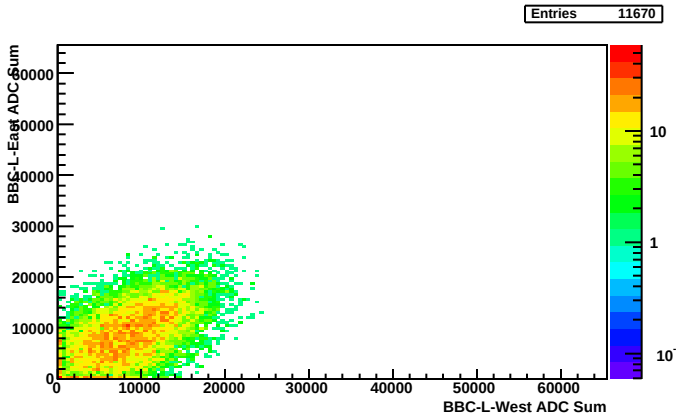
VPD-West ADC Sum
ZDC-West ADC Sum Att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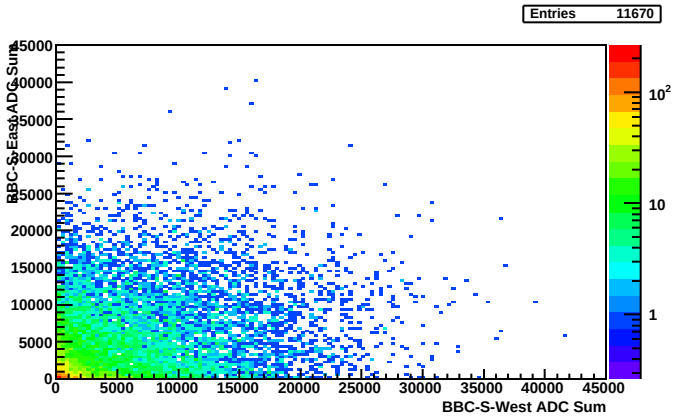
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 11670
BBC-S-East ADC Sum
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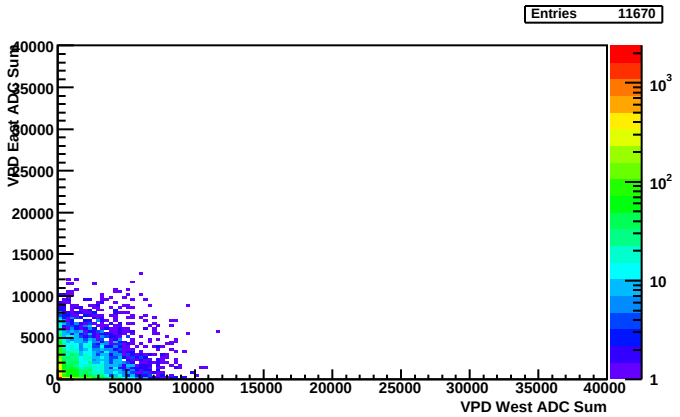
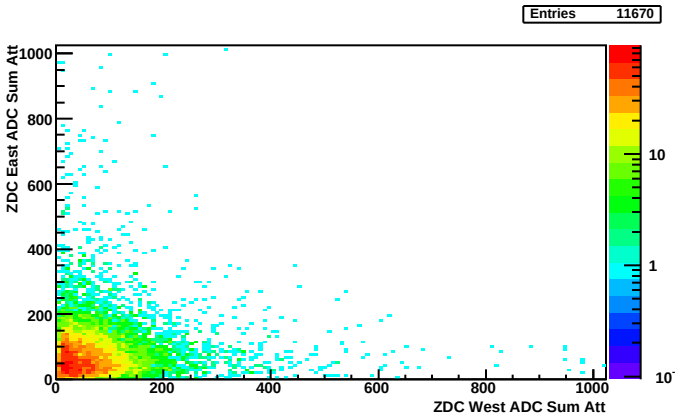
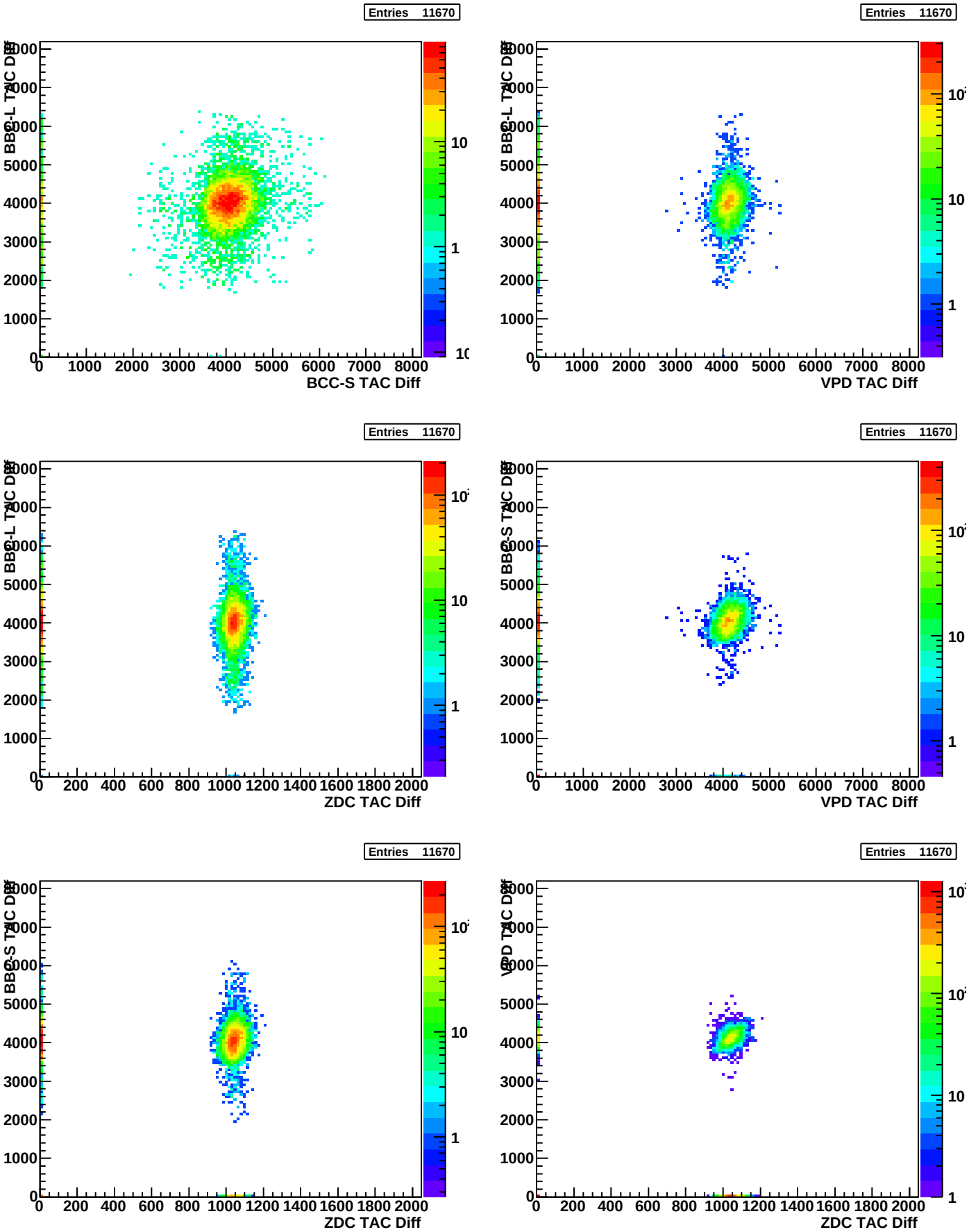
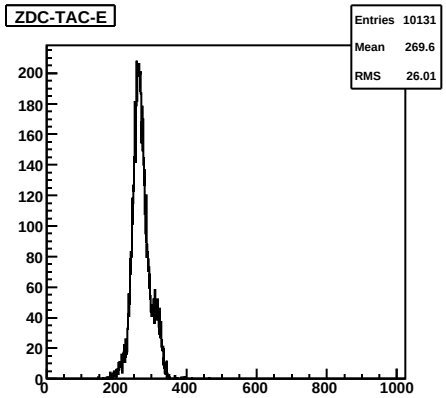
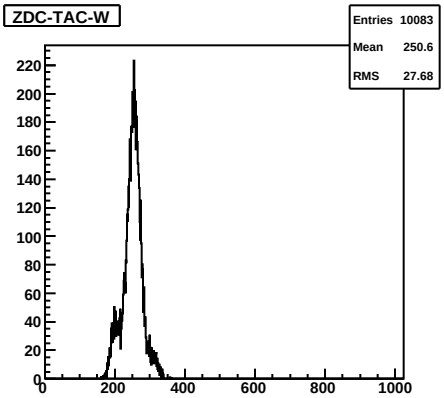
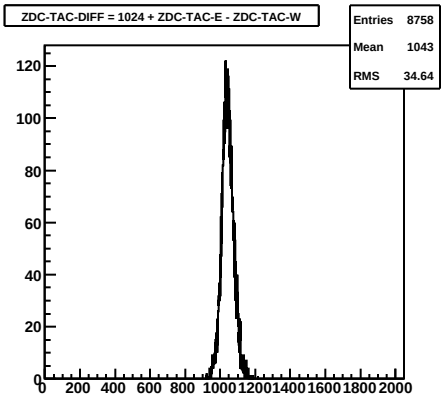

Entries 11670
VPD East ADC Sum
VPD West ADC Sum

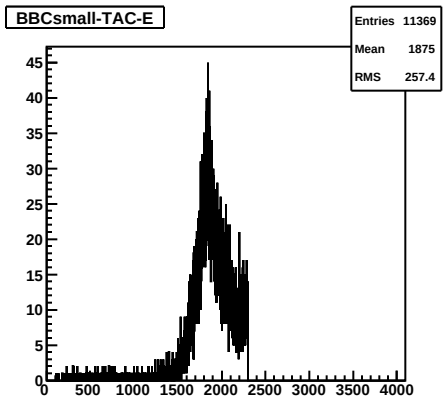

Entries 11670
ZDC East ADC Sum Att
ZDC West ADC Sum Att

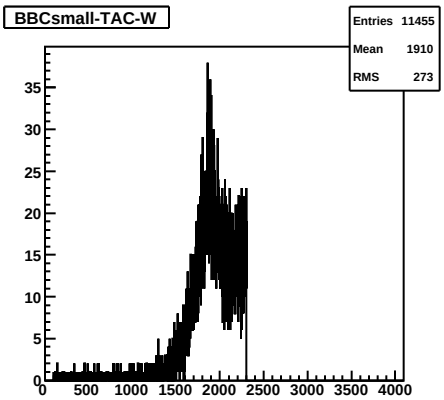

Entries 11670
BBC-L TAC Diff
BCC-S TAC Diff
Entries 11670
BBC-L TAC Diff
VPD TAC Diff
Entries 11670
BBC-L TAC Diff
ZDC TAC Diff
Entries 11670
BBC-S TAC Diff
VPD TAC Diff
Entries 11670
BBC-S TAC Diff
ZDC TAC Diff
Entries 11670
VPD TAC Diff
ZDC TAC Diff

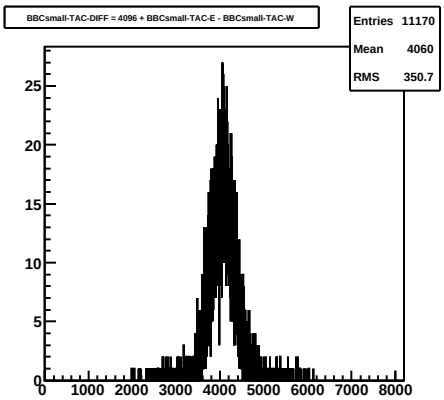

ZDC-TAC-E
Entries 10131
Mean 269.6
RMS 26.01

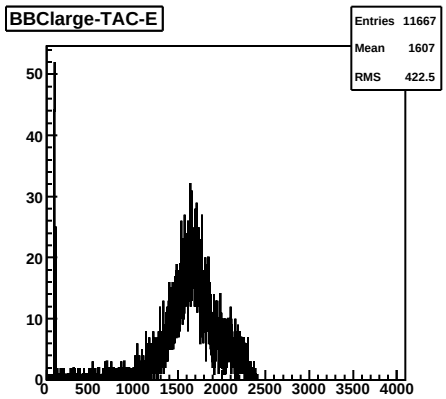

ZDC-TAC-W
Entries 10083
Mean 250.6
RMS 27.68

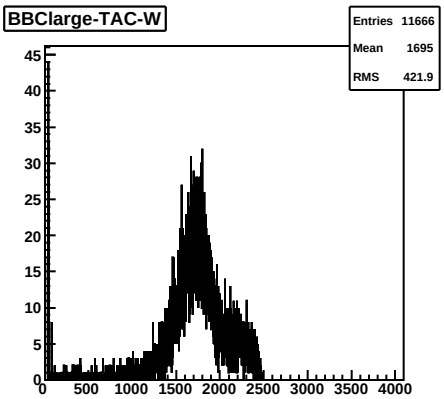

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 8758
Mean 1043
RMS 34.64

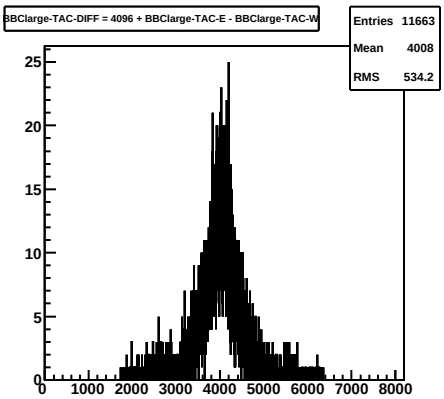

BBCsmall-TAC-E
Entries 11369
Mean 1875
RMS 257.4

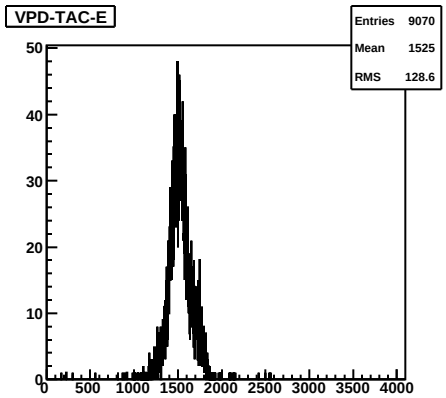

BBCsmall-TAC-W
Entries 11455
Mean 1910
RMS 273

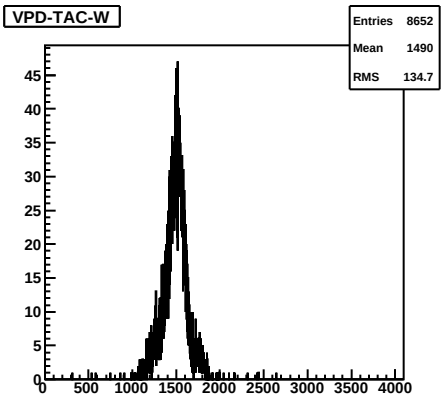

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 11170
Mean 4060
RMS 350.7

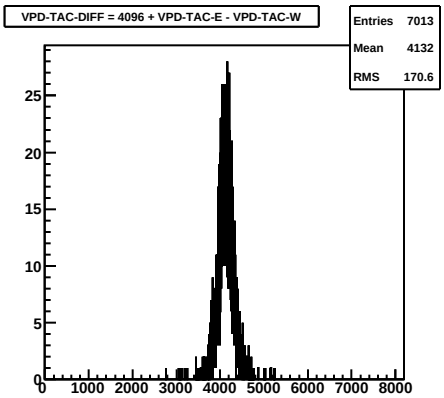

BBClarge-TAC-E
Entries 11667
Mean 1607
RMS 422.5

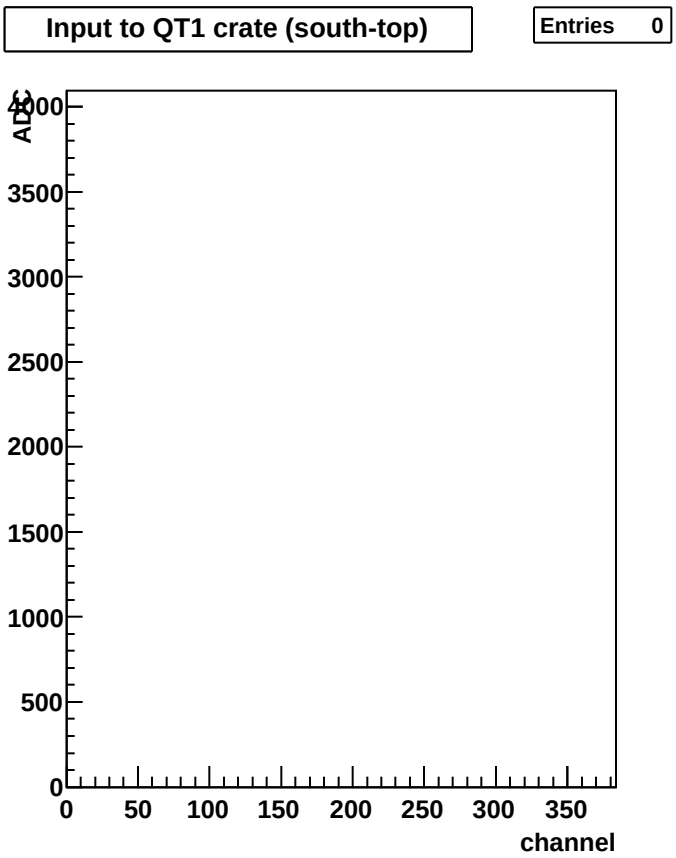

BBClarge-TAC-W
Entries 11666
Mean 1695
RMS 421.9

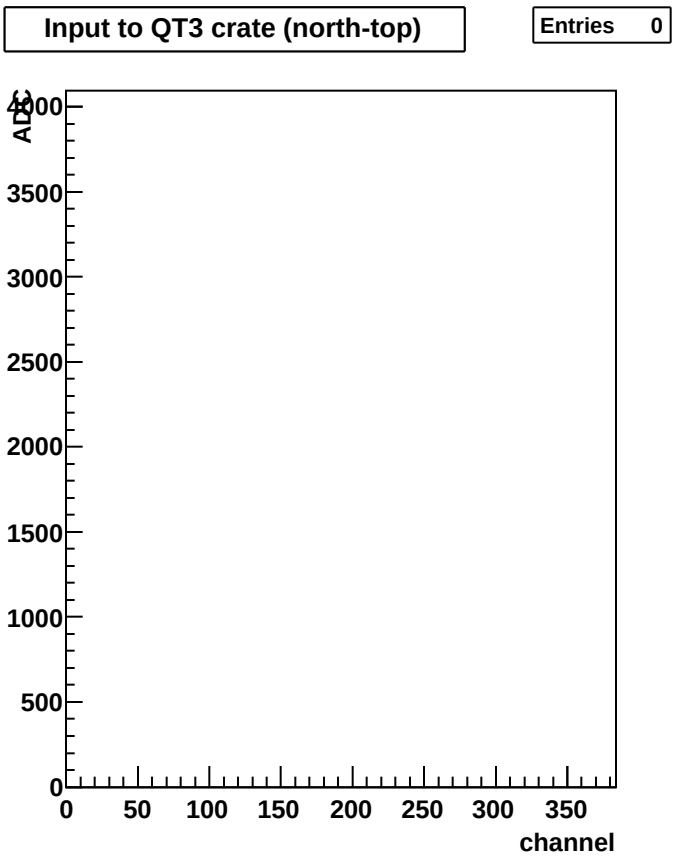

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 11663
Mean 4008
RMS 534.2

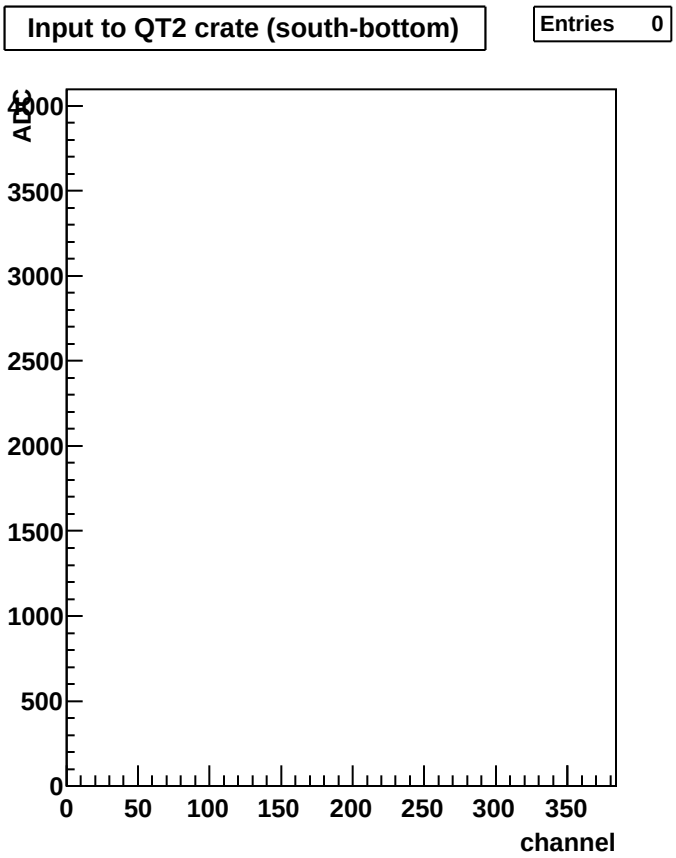

VPD-TAC-E
Entries 9070
Mean 1525
RMS 128.6

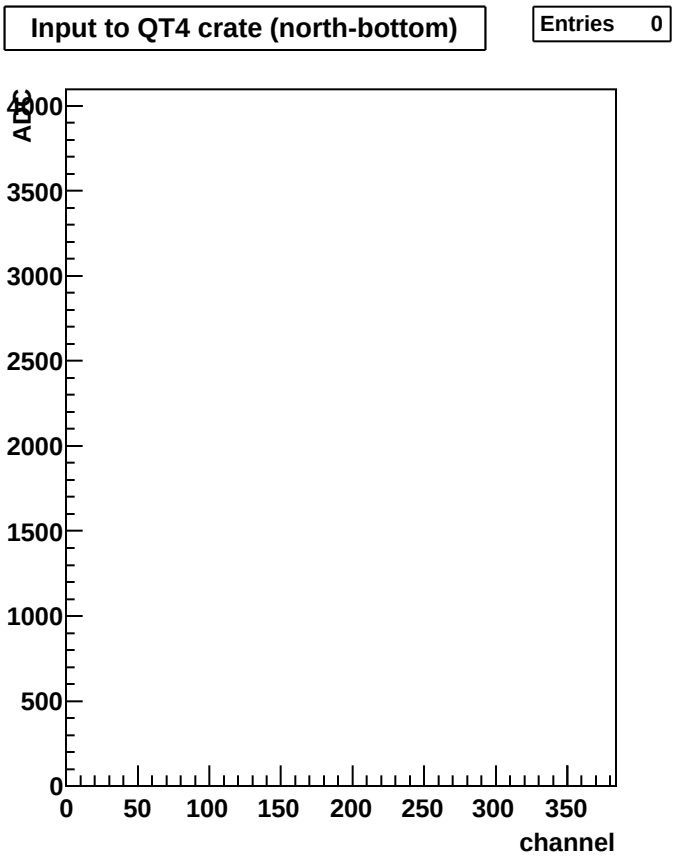

VPD-TAC-W
Entries 8652
Mean 1490
RMS 134.7

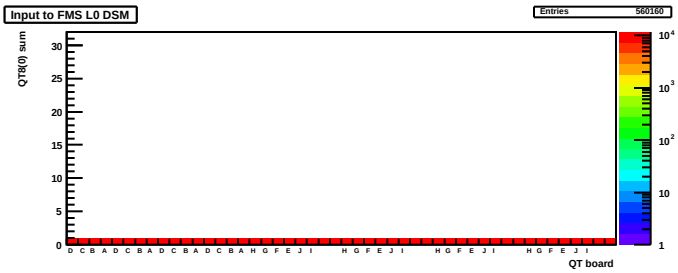

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 7013
Mean 4132
RMS 170.6

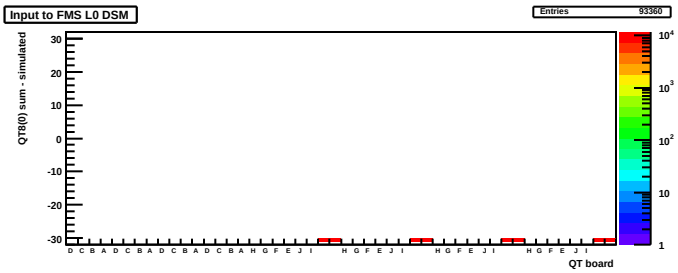

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

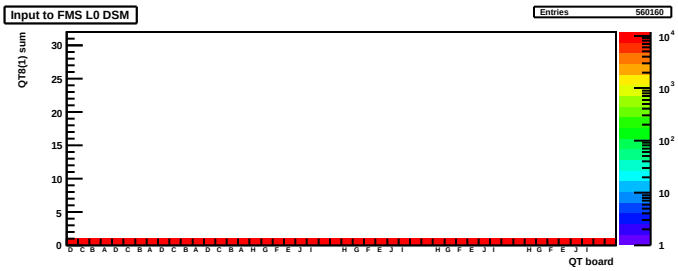

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

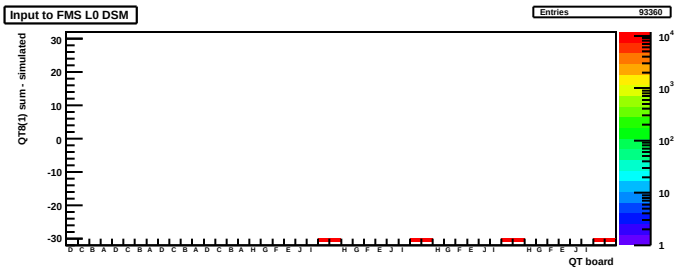

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

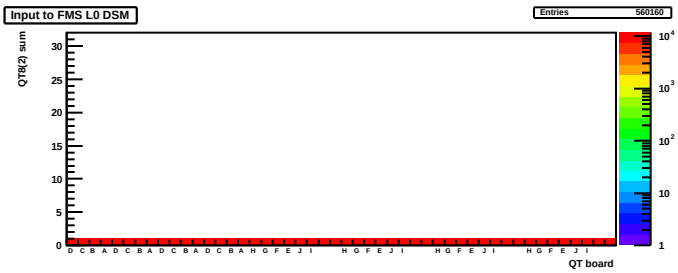

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

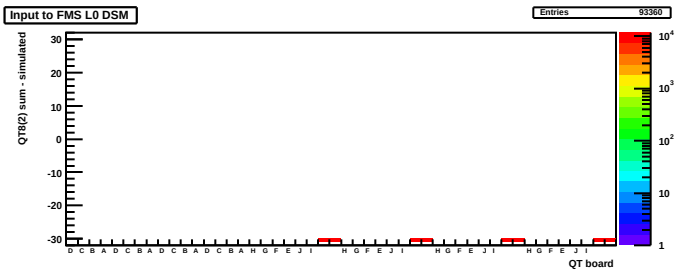

Input to FMS L0 DSM
Entries 560160
QT8(0) sum
QT board

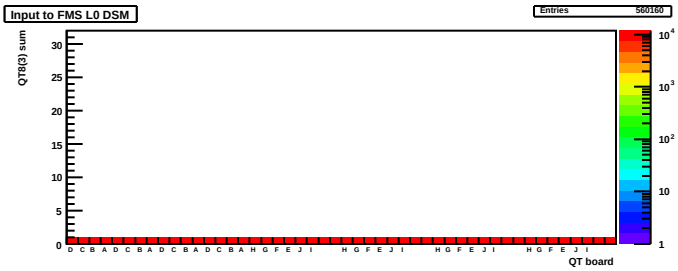

Input to FMS L0 DSM
Entries 93360
QT8(0) sum - simulated
QT board

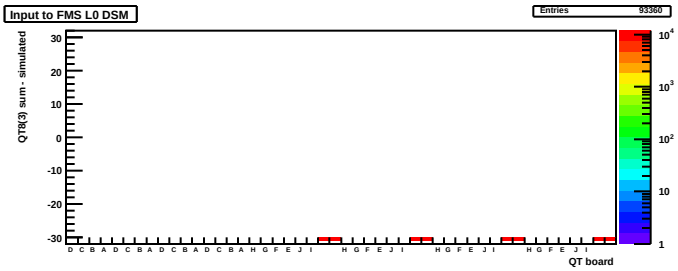

Input to FMS L0 DSM
Entries 560160
QT8(1) sum
QT board

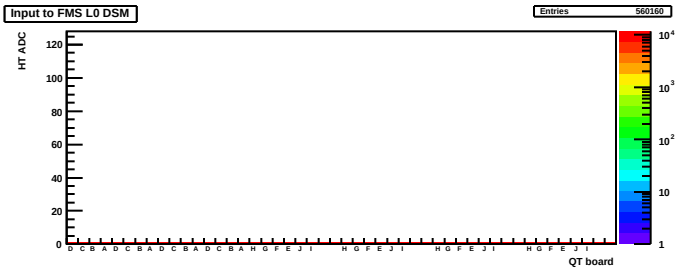

Input to FMS L0 DSM
Entries 93360
QT8(1) sum - simulated
QT board

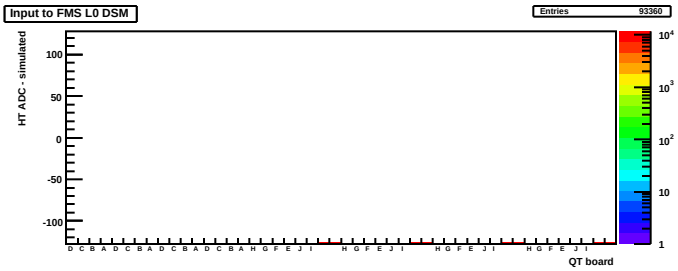

Input to FMS L0 DSM
Entries 560160
QT8(2) sum
QT board

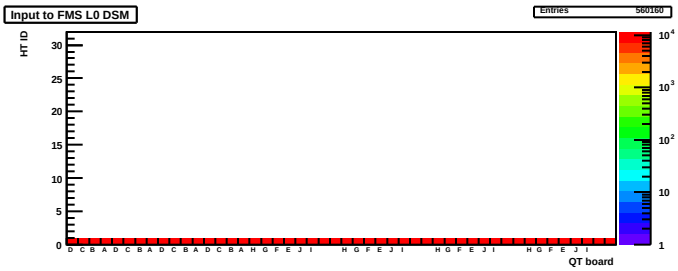

Input to FMS L0 DSM
Entries 93360
QT8(2) sum - simulated
QT board

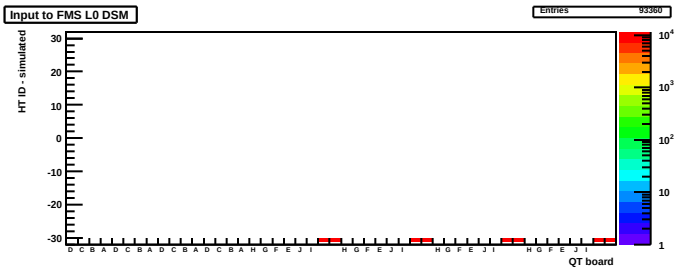

Input to FMS L0 DSM
Entries 560160
QT8(3) sum
QT board

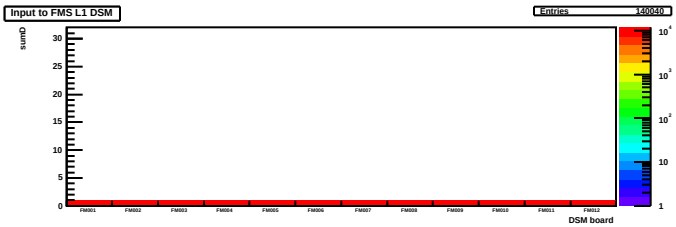

Input to FMS L0 DSM
Entries 93360
QT8(3) sum - simulated
QT board

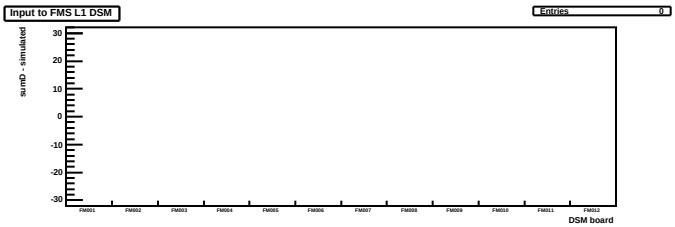

Input to FMS L0 DSM
Entries 560160
HT ADC
QT board

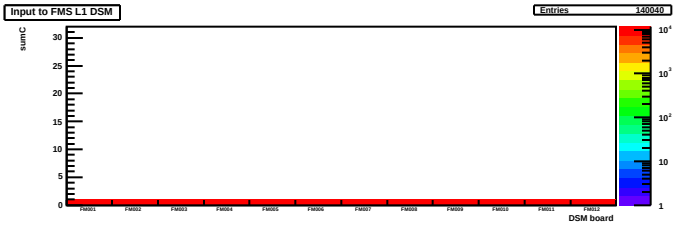

Input to FMS L0 DSM
Entries 93360
HT ADC - simulated
QT board

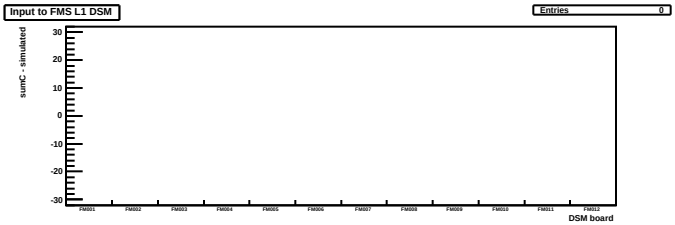

Input to FMS L0 DSM
Entries 560160
HT ID
QT board

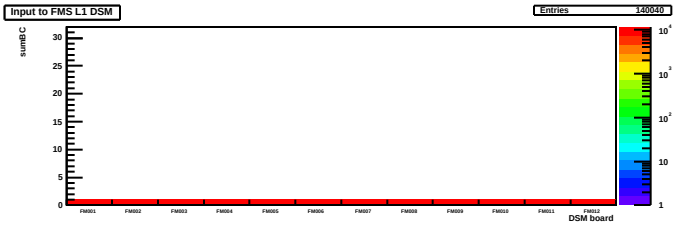

Input to FMS L0 DSM
Entries 93360
HT ID - simulated
QT board

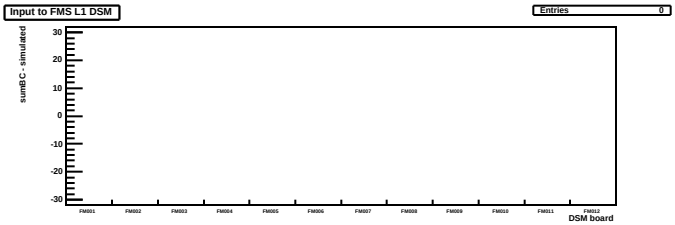

Input to FMS L1 DSM
Entries 140040
sumD
DSM board

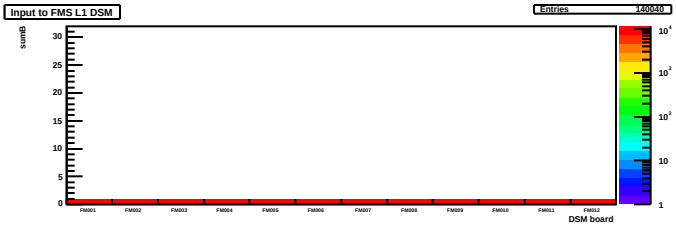

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

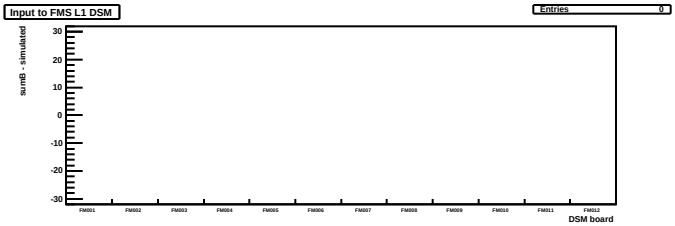

Input to FMS L1 DSM
Entries 140040
sumC
DSM board

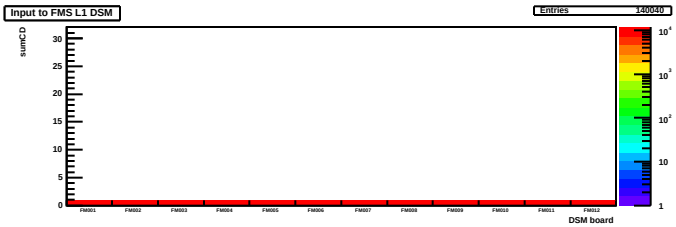

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

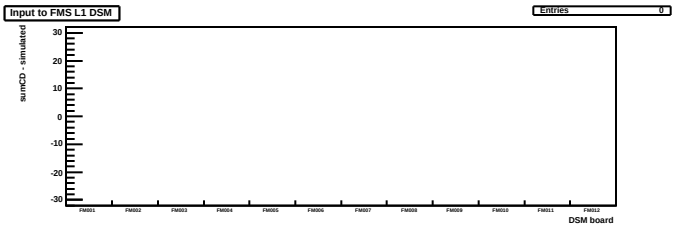

Input to FMS L1 DSM
Entries 140040
sumBC
DSM board

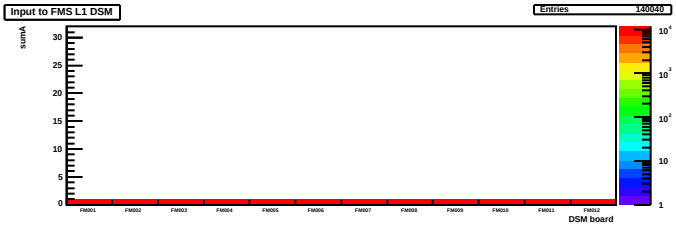

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

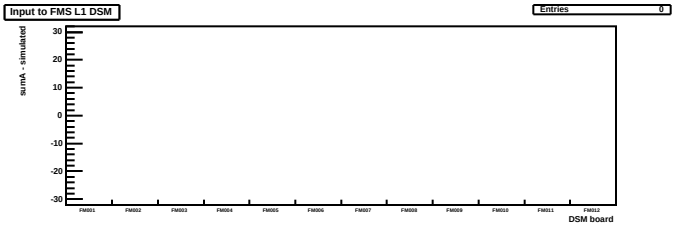

Input to FMS L1 DSM
Entries 140040
sumB
DSM board

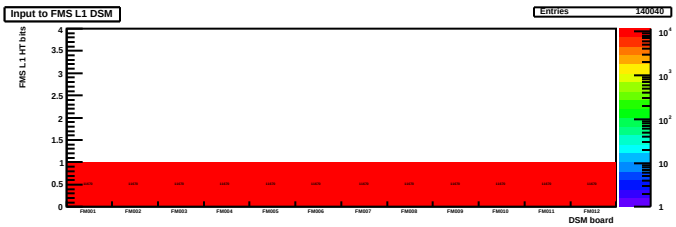

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

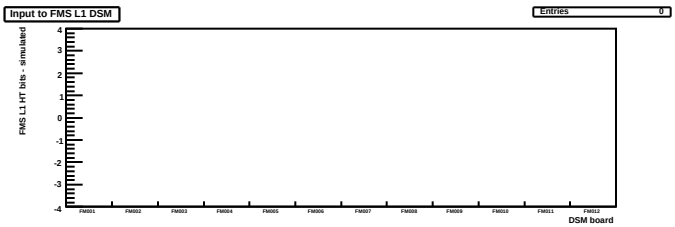

Input to FMS L1 DSM
Entries 140040
sumCD
DSM board

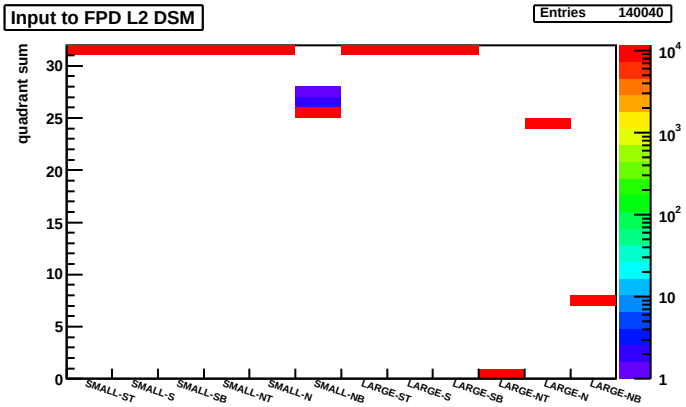

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

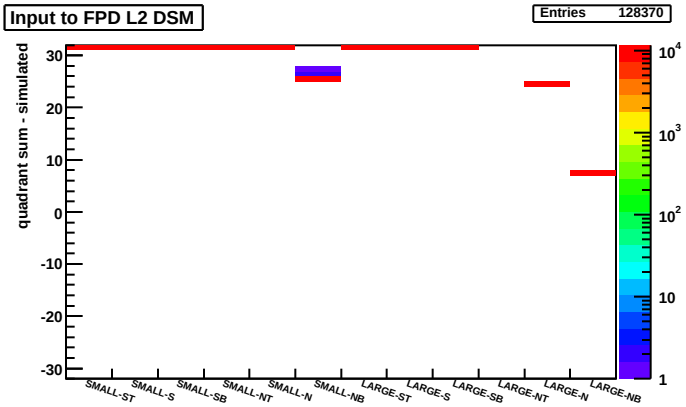

Input to FMS L1 DSM
Entries 140040
sumA
DSM board

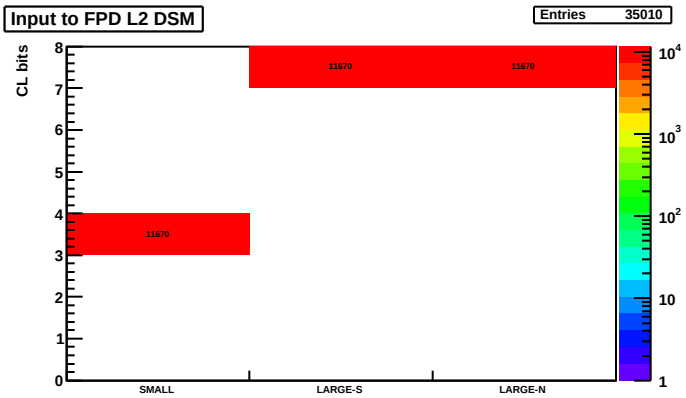

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

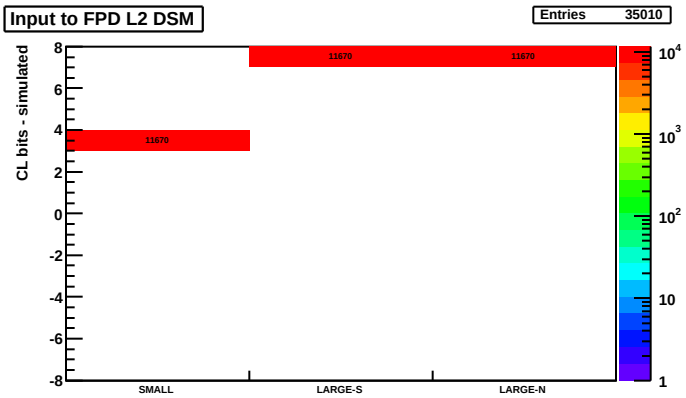

Input to FMS L1 DSM
Entries 140040
FMS L1 HT bits
DSM board

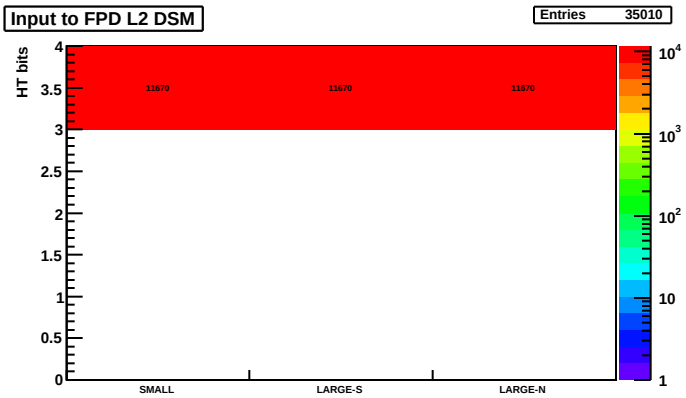

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

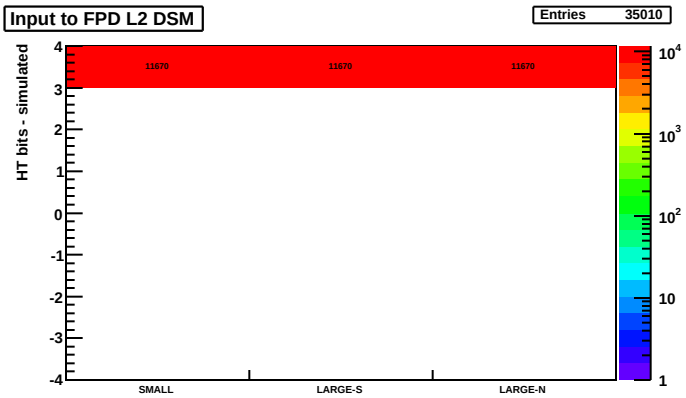

Input to FPD L2 DSM
Entries 140040
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

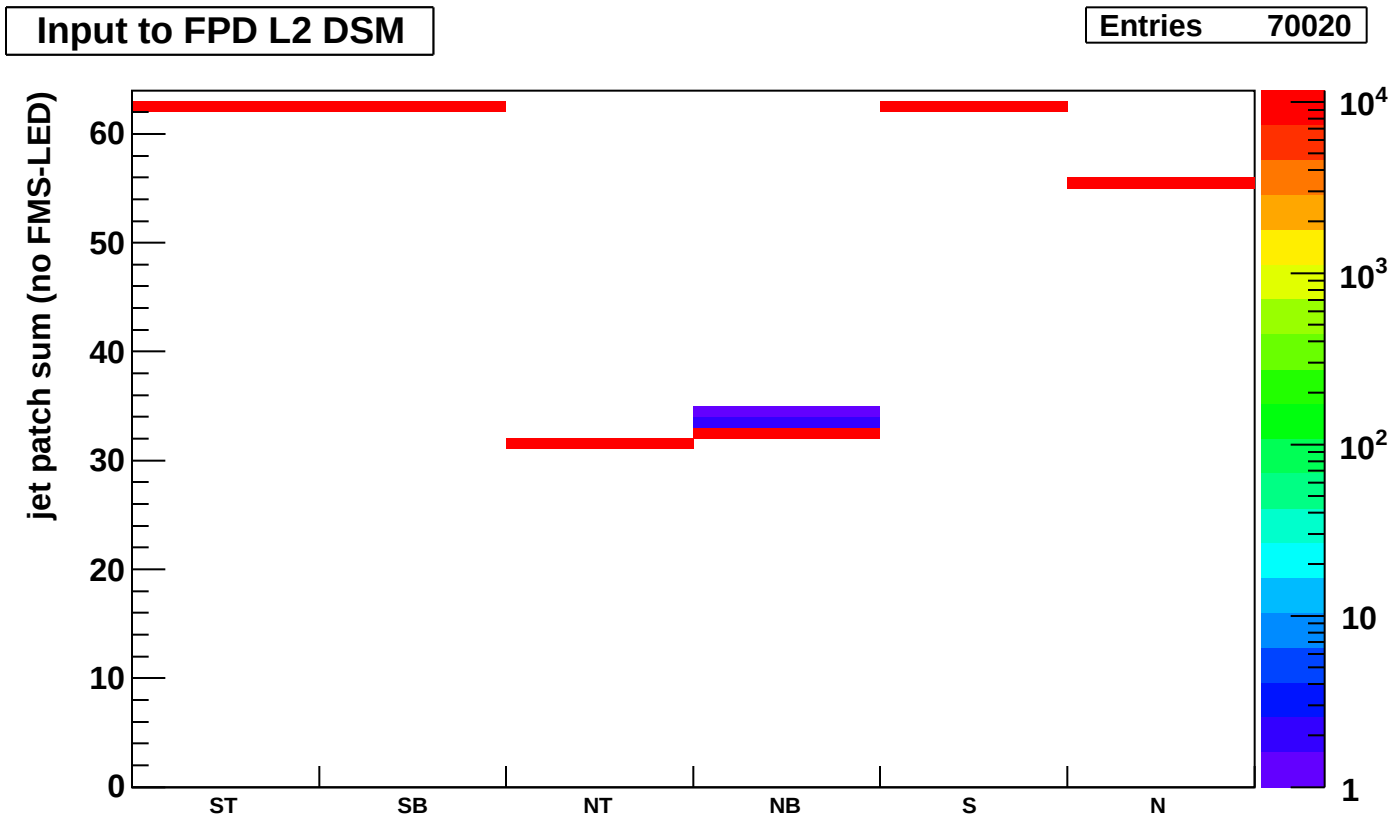

Input to FPD L2 DSM
Entries 128370
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

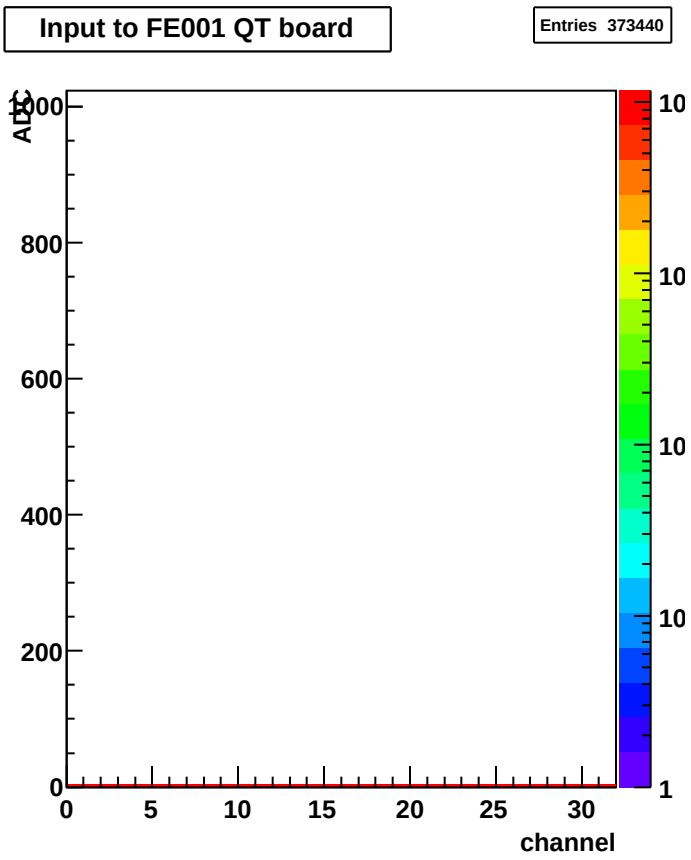

Input to FPD L2 DSM
Entries 35010
CL bits
11670
11670
11670
SMALL
LARGE-S
LARGE-N

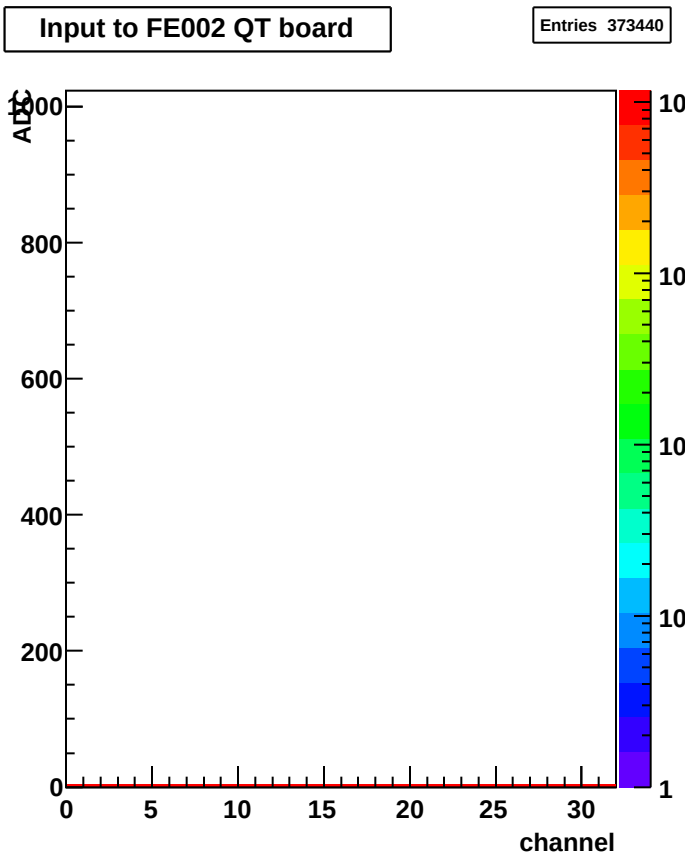

Input to FPD L2 DSM
Entries 35010
CL bits - simulated
11670
11670
11670
SMALL
LARGE-S
LARGE-N

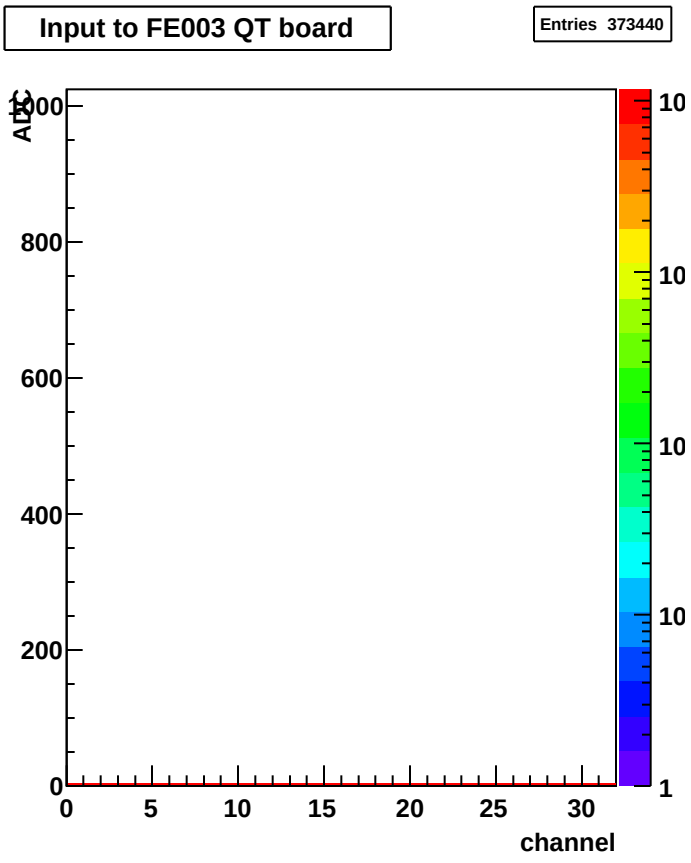

Input to FPD L2 DSM
Entries 35010
HT bits
11670
11670
11670
SMALL
LARGE-S
LARGE-N

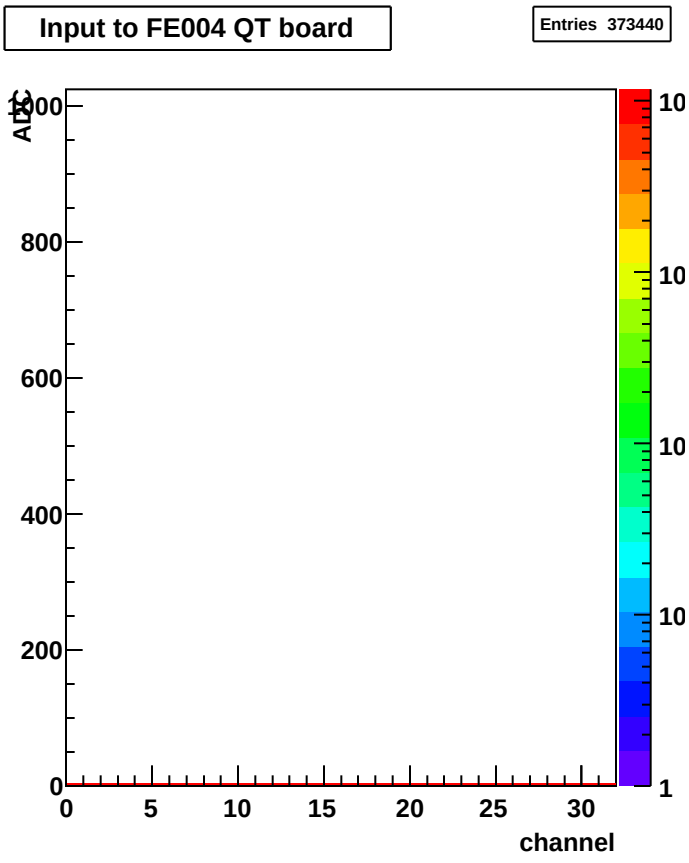

Input to FPD L2 DSM
Entries 35010
HT bits - simulated
11670
11670
11670
SMALL
LARGE-S
LARGE-N

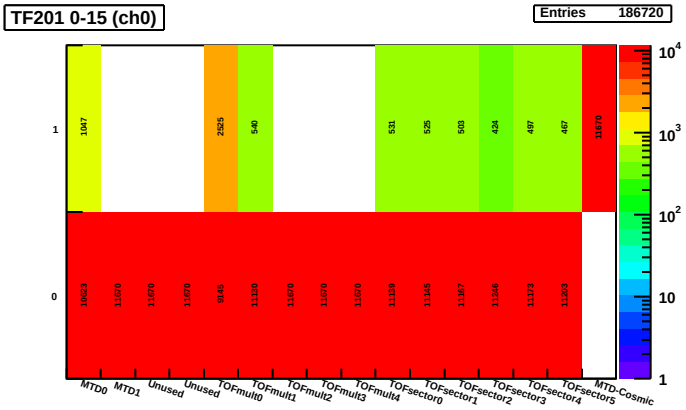

Input to FPD L2 DSM
Entries 70020
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

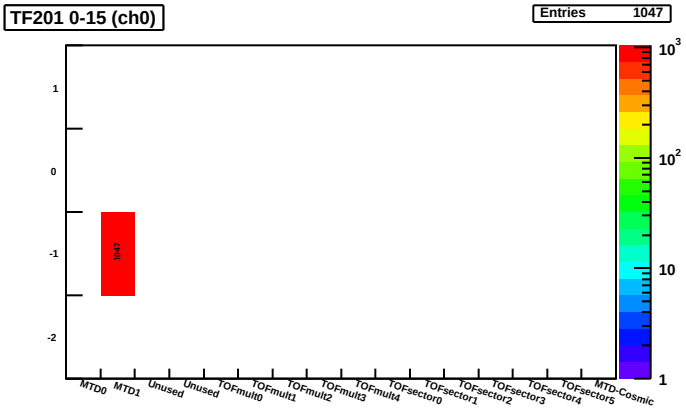

Input to FE001 QT board
Entries 373440
ADC
channel

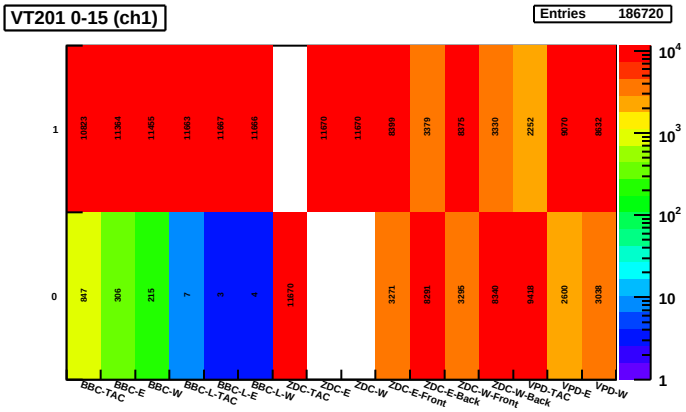

Input to FE002 QT board
Entries 373440
ADC
channel

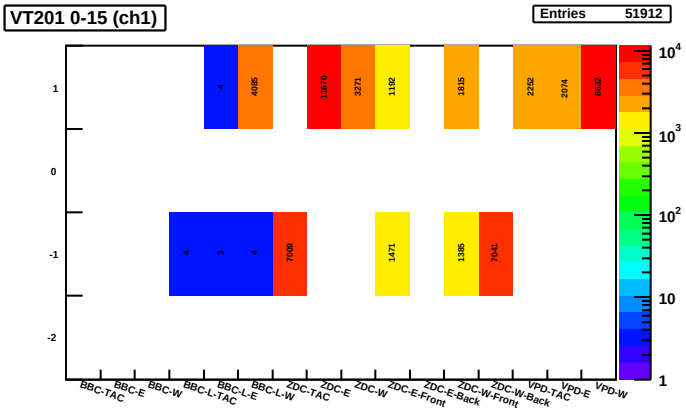

Input to FE003 QT board
Entries 373440
ADC
channel

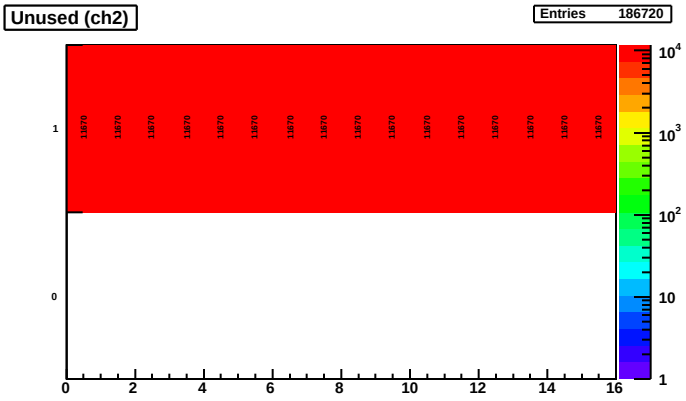

Input to FE004 QT board
Entries 373440
ADC
channel

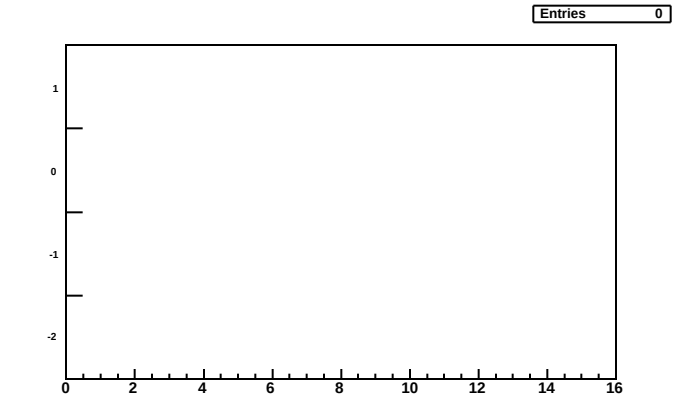

TF201 0-15 (ch0)
Entries 186720
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

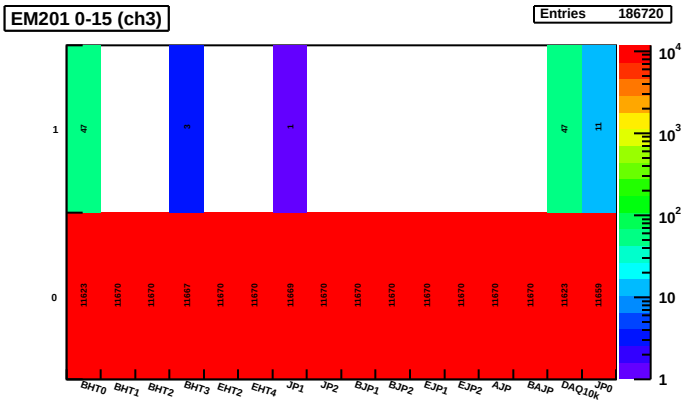

TF201 0-15 (ch0)
Entries 1047
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 186720
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 51912
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


Unused (ch2)
Entries 186720


Entries 0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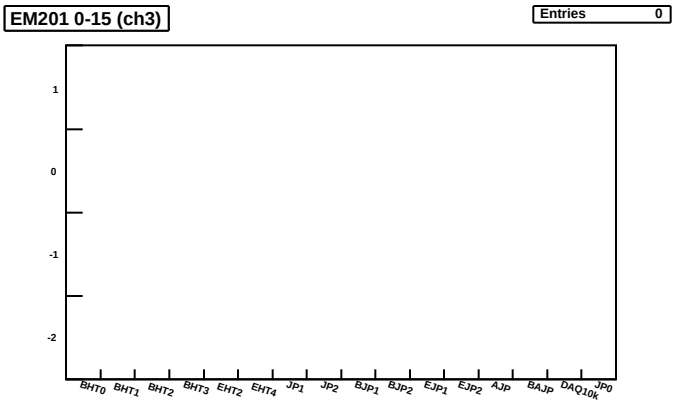
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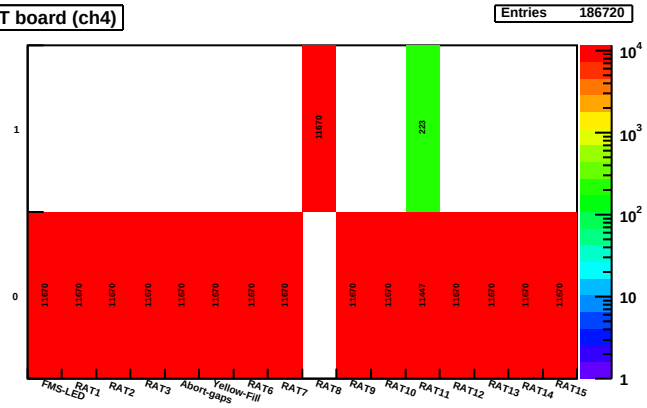
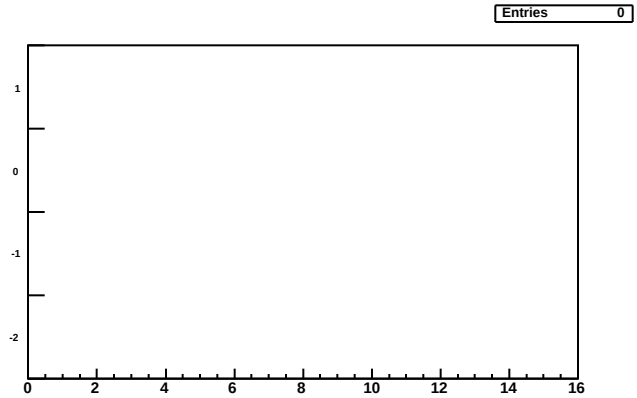
RAT board (ch4)





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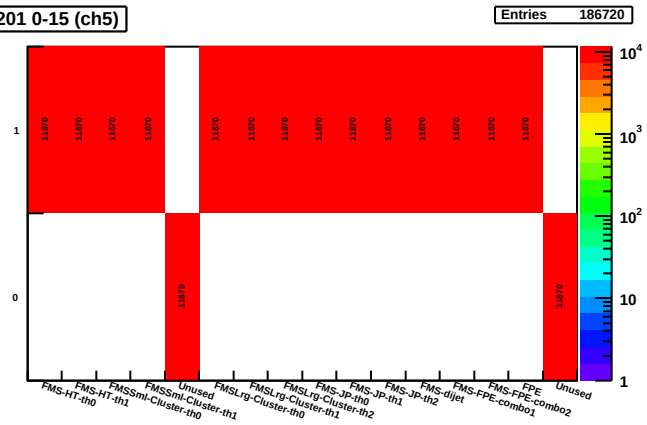

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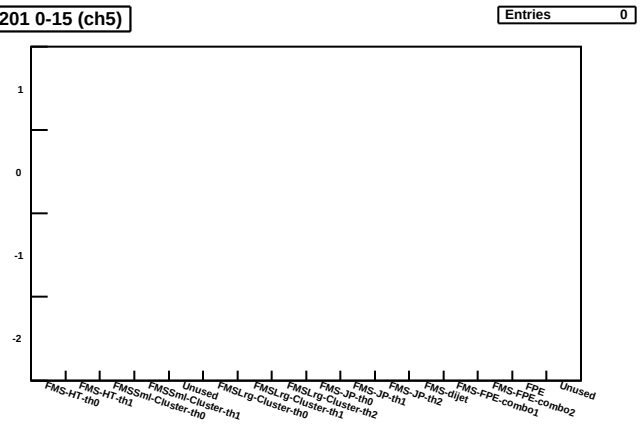

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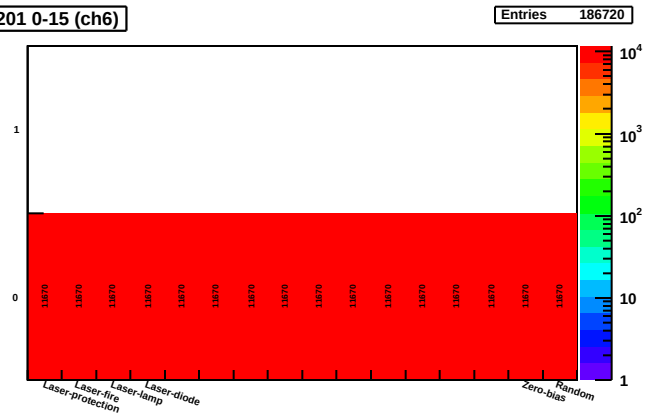

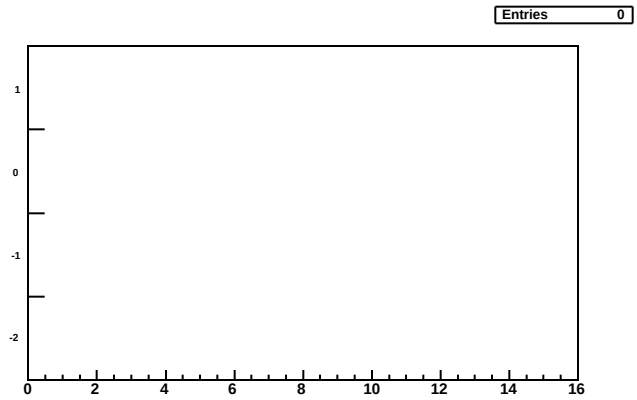
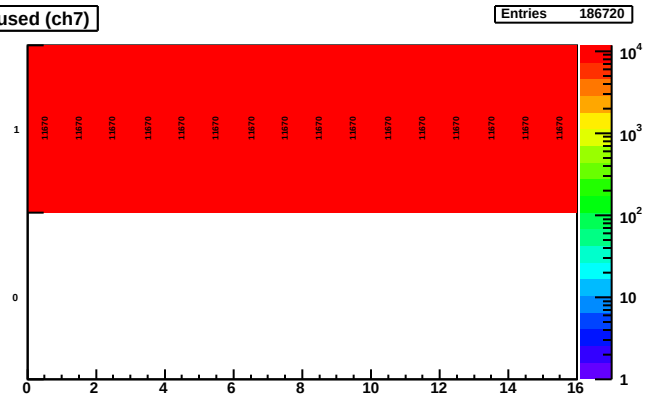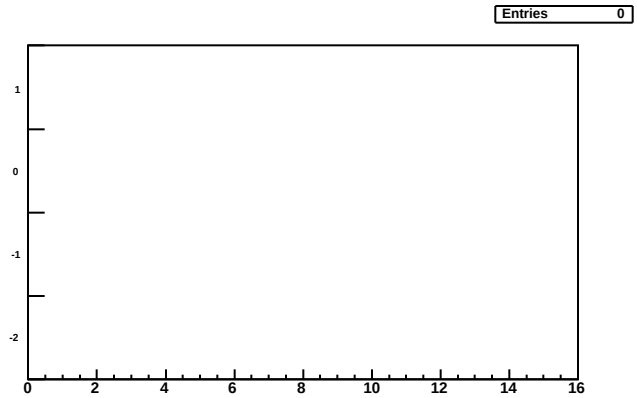
Unused (ch7)