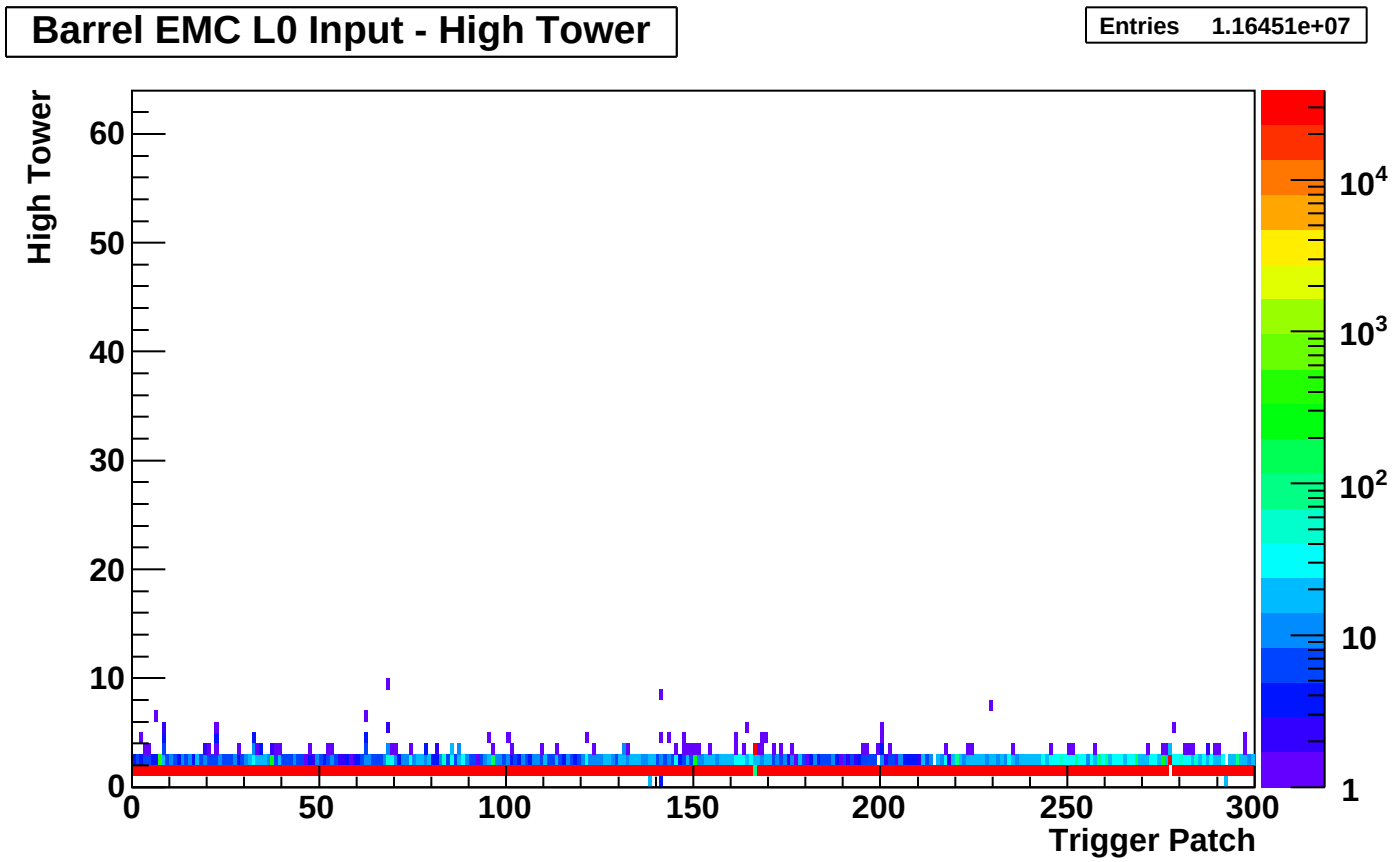
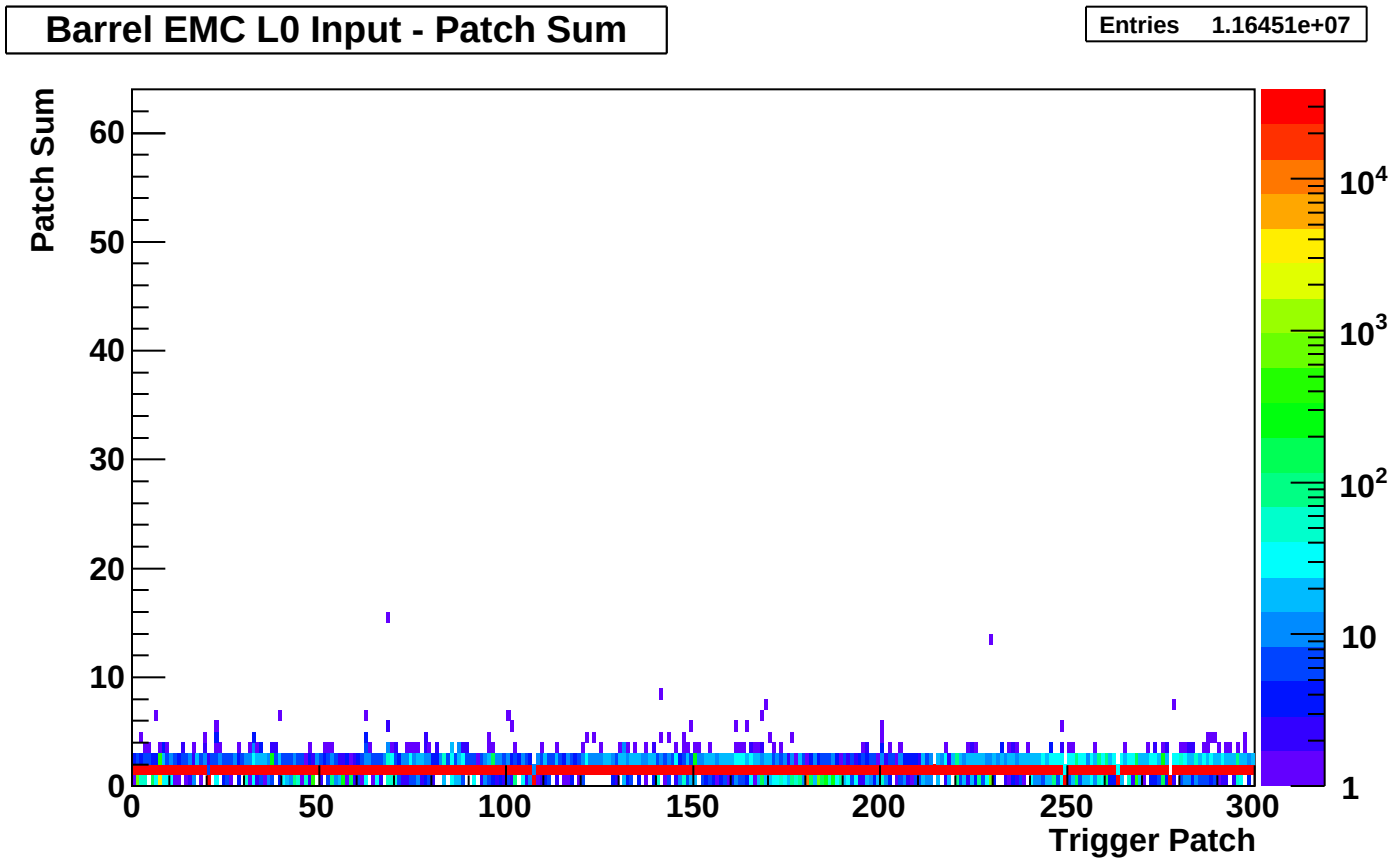
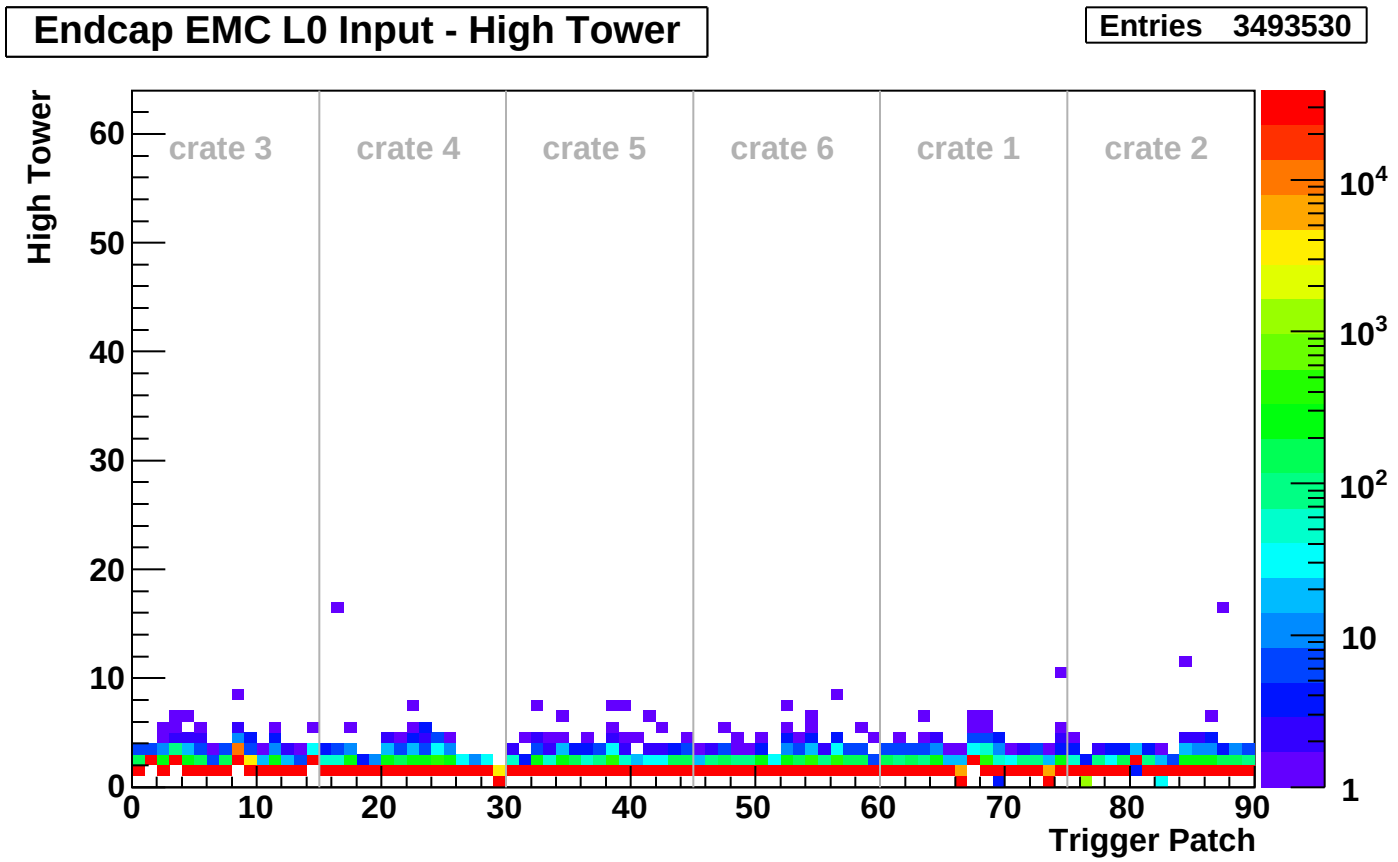
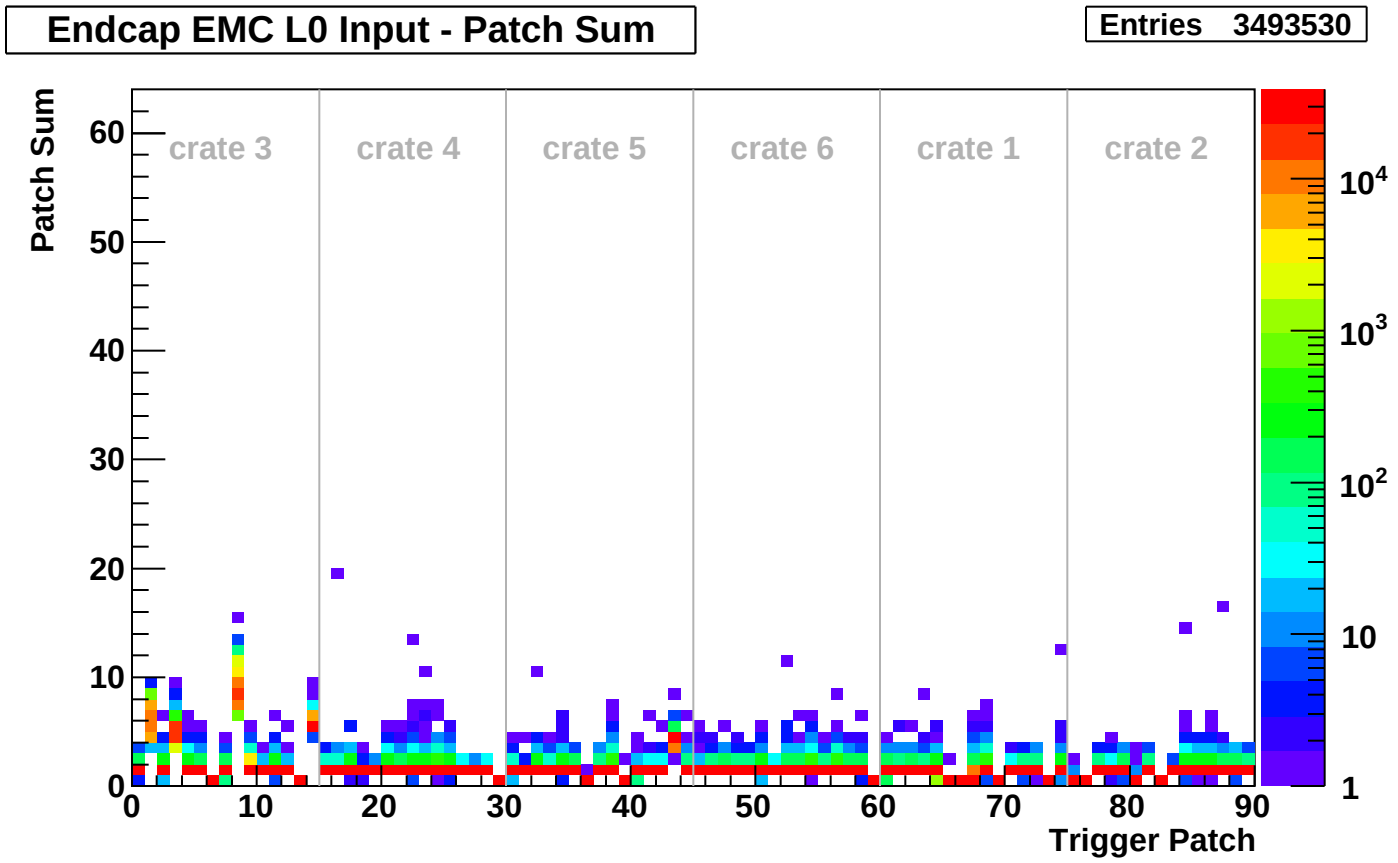
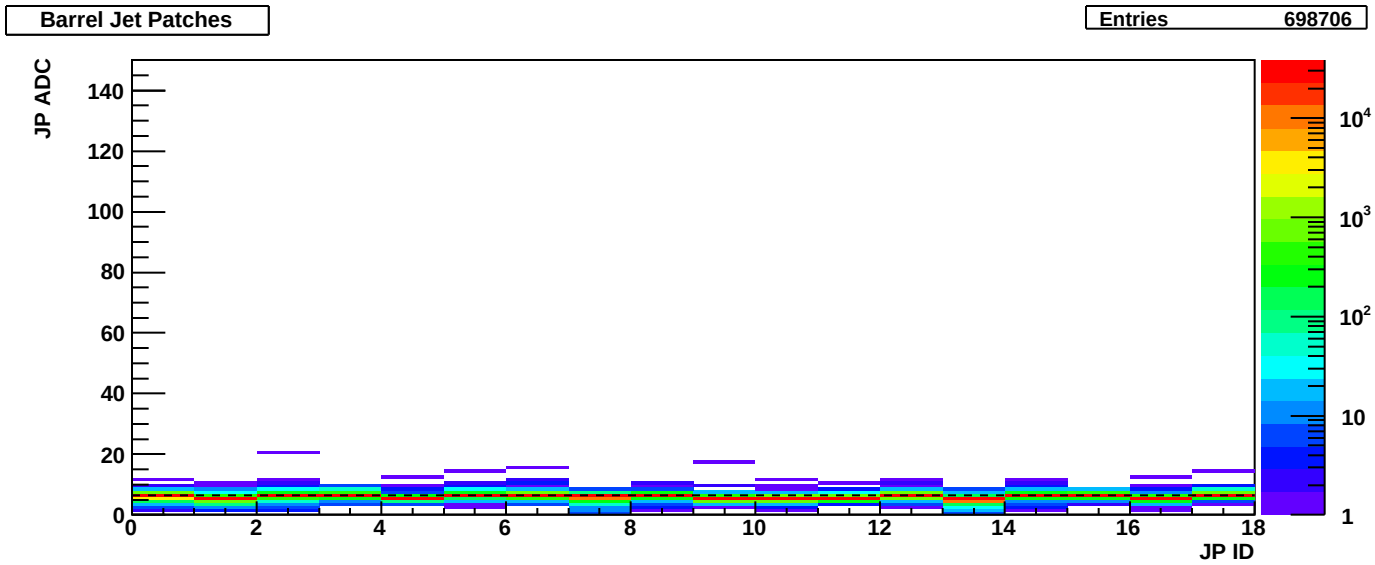
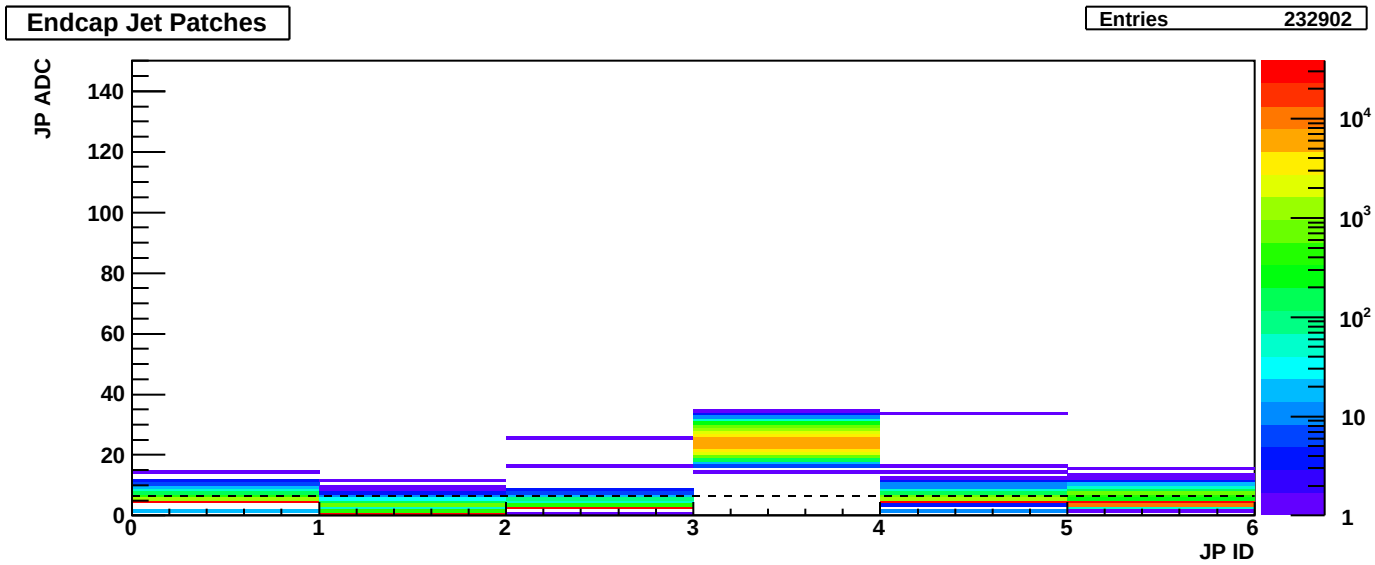

Barrel EMC L0 Input - High Tower
Entries 1.16451e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

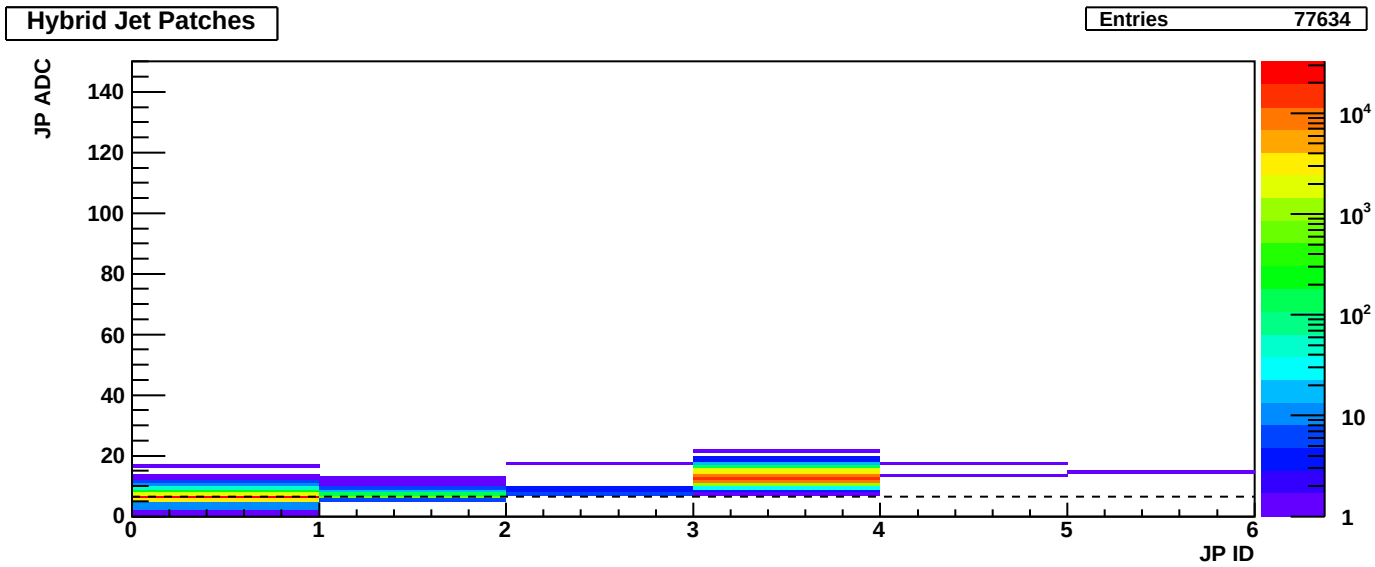

Barrel EMC L0 Input - Patch Sum
Entries 1.16451e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

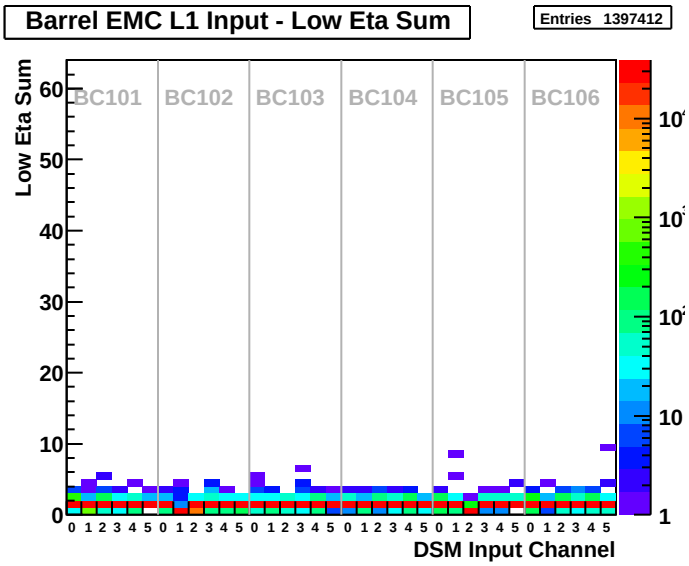

Endcap EMC L0 Input - High Tower
Entries 3493530
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

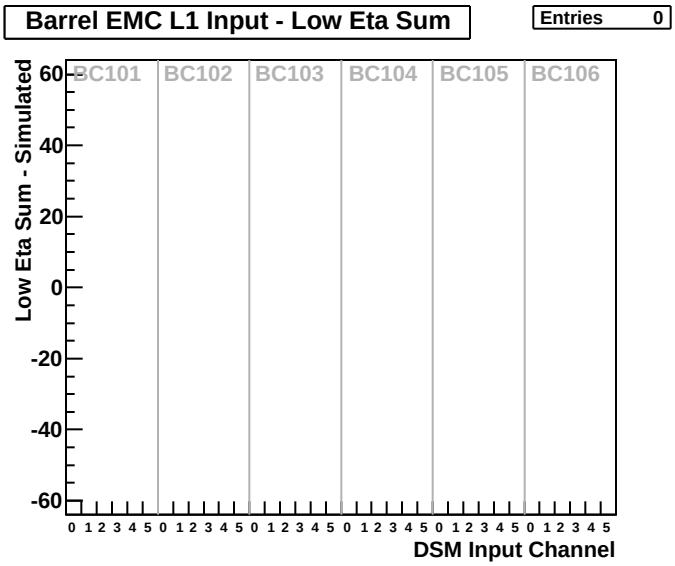

Endcap EMC L0 Input - Patch Sum
Entries 3493530
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

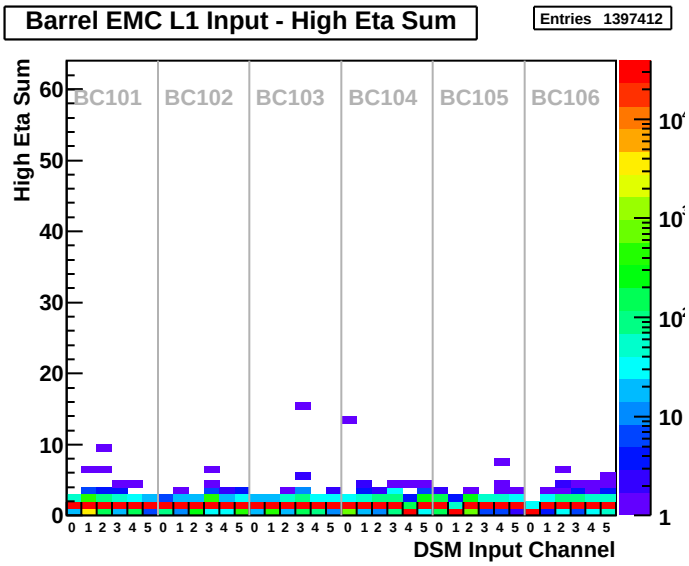

Barrel Jet Patches
Entries 698706
JP ADC
JP ID

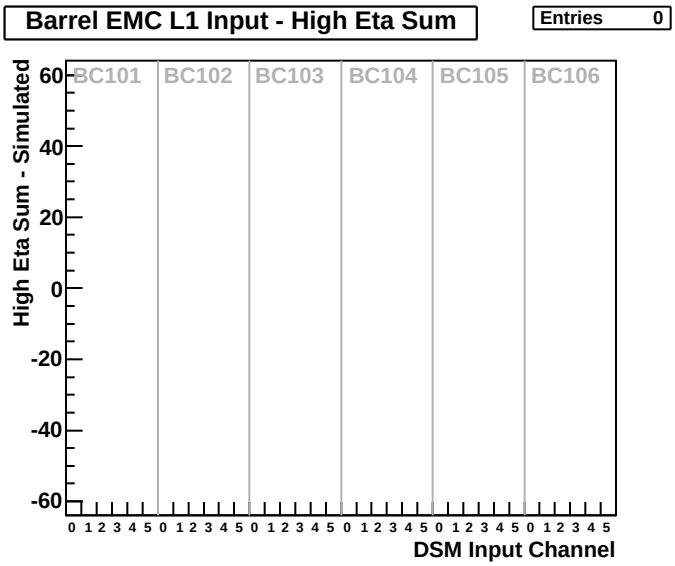

Endcap Jet Patches
Entries 232902
JP ADC
JP ID

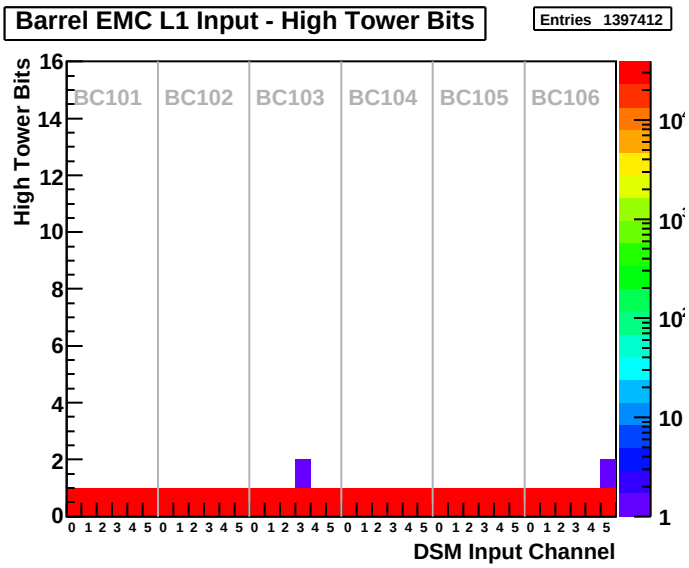

Hybrid Jet Patches
Entries 77634
JP ADC
JP ID

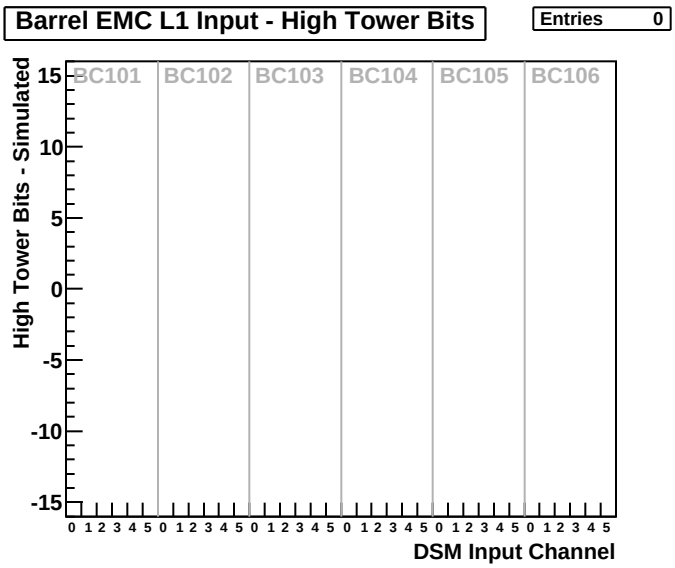

Barrel EMC L1 Input - Low Eta Sum
Entries 1397412
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

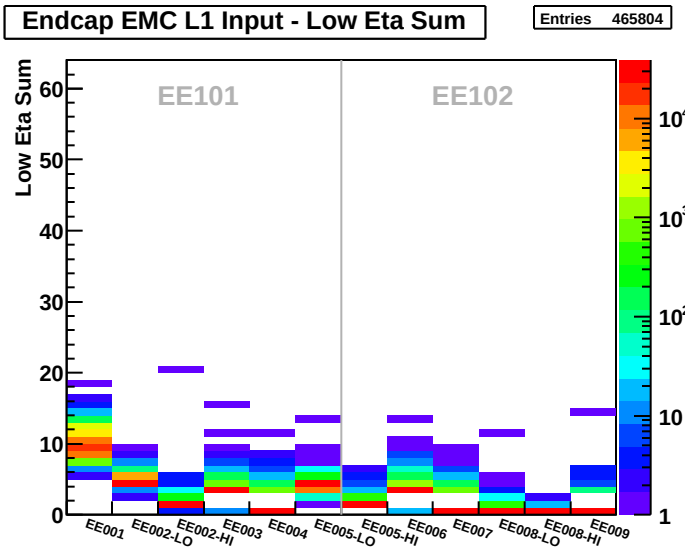

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

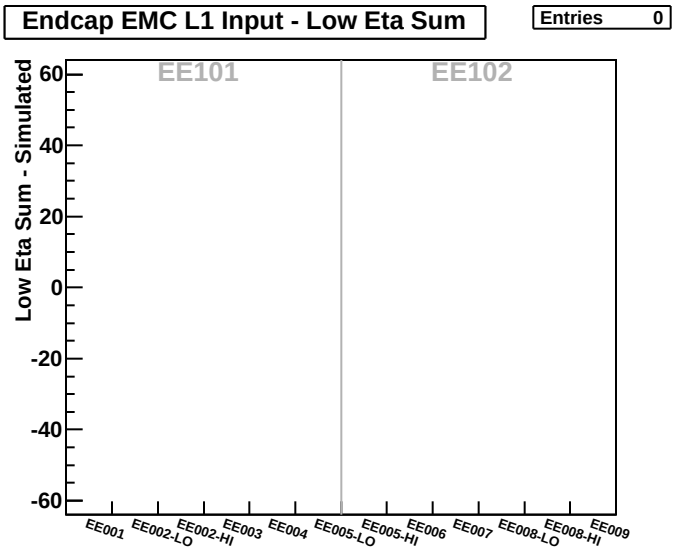

Barrel EMC L1 Input - High Eta Sum
Entries 1397412
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

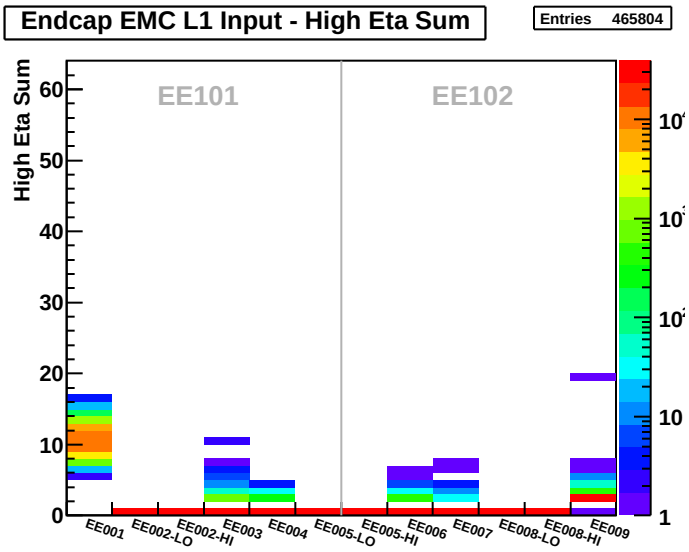

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

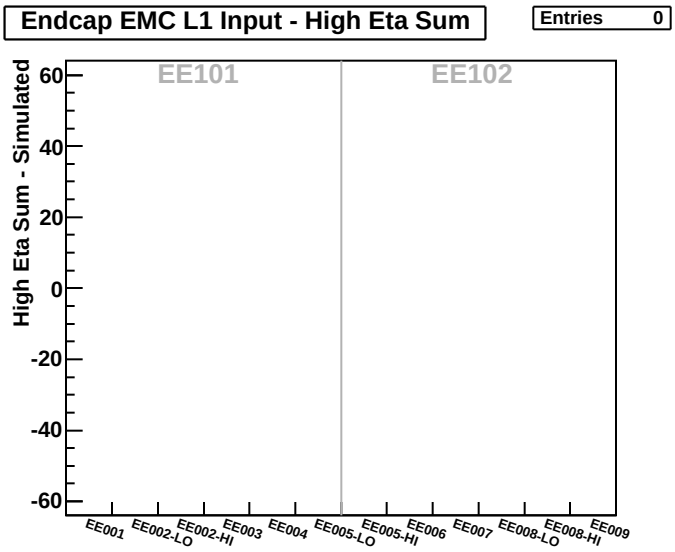

Barrel EMC L1 Input - High Tower Bits
Entries 1397412
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

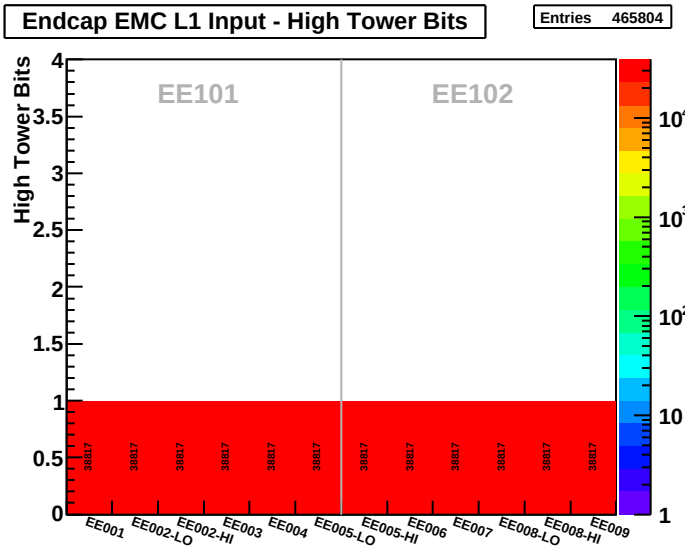

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

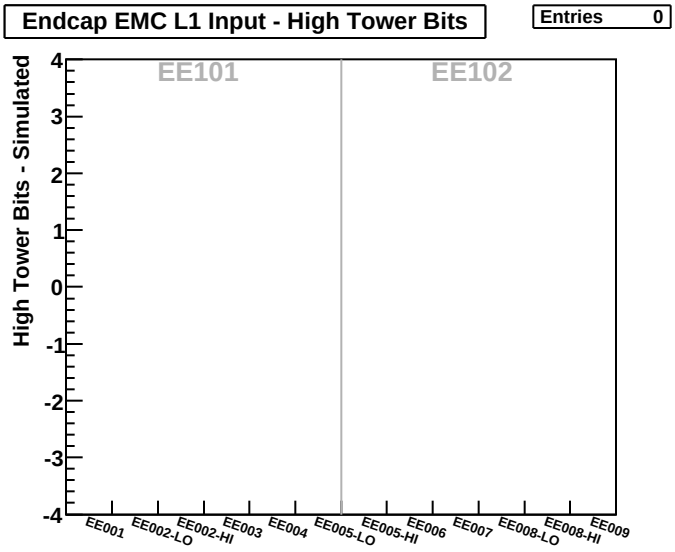

Endcap EMC L1 Input - Low Eta Sum
Entries 465804
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

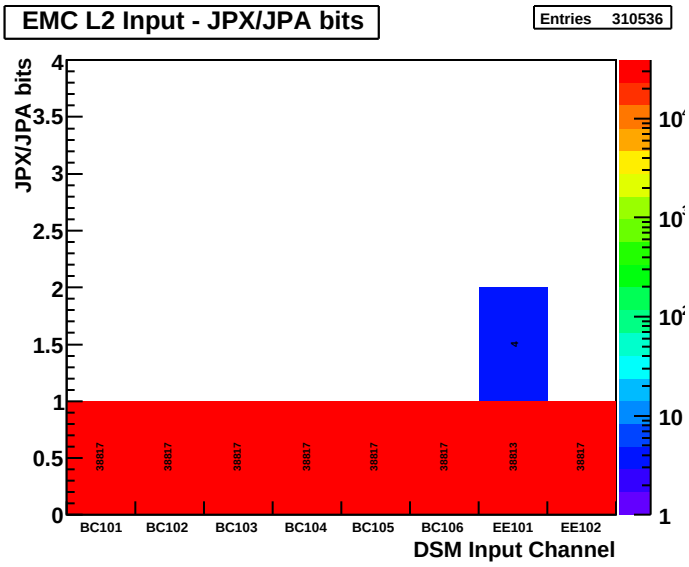

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

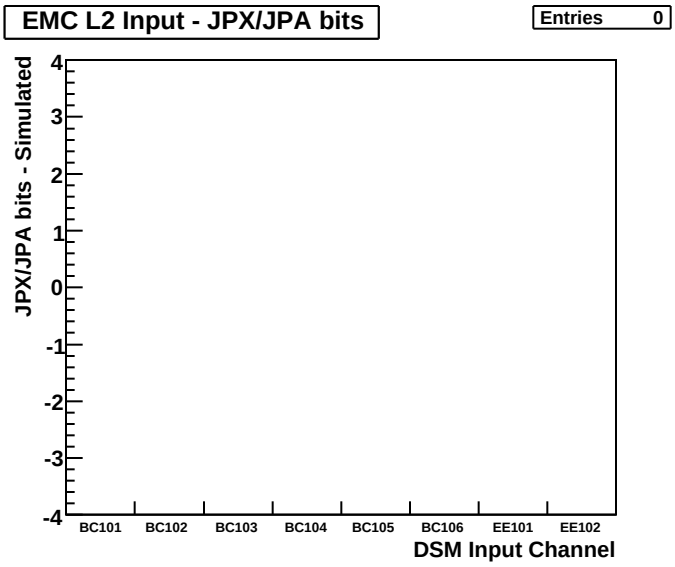

Endcap EMC L1 Input - High Eta Sum
Entries 465804
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

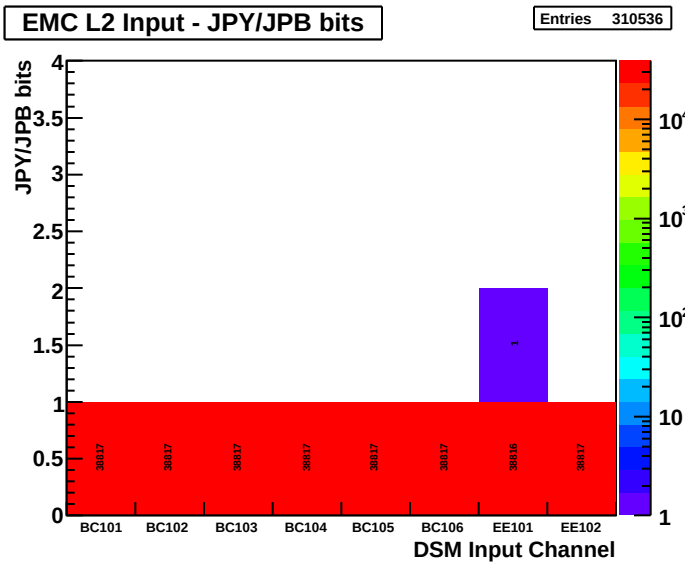

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

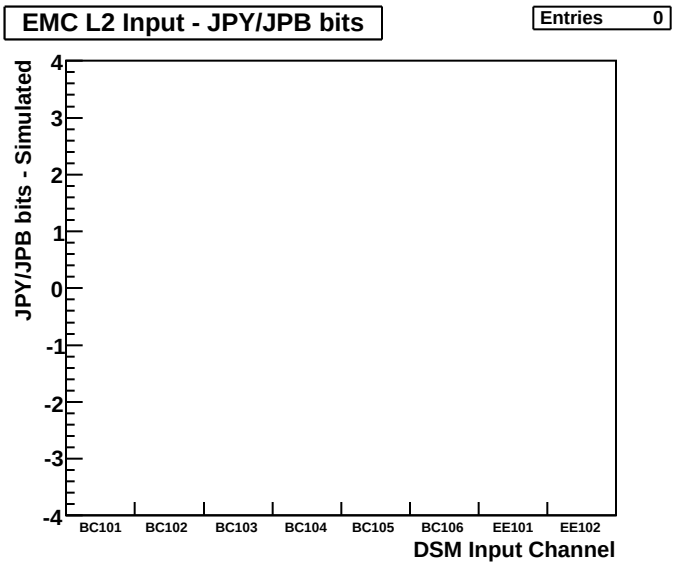

Endcap EMC L1 Input - High Tower Bits
Entries 465804
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

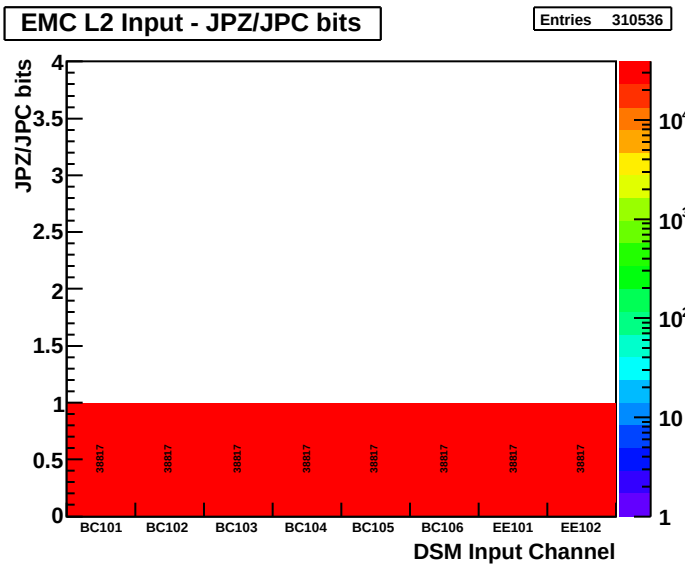

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

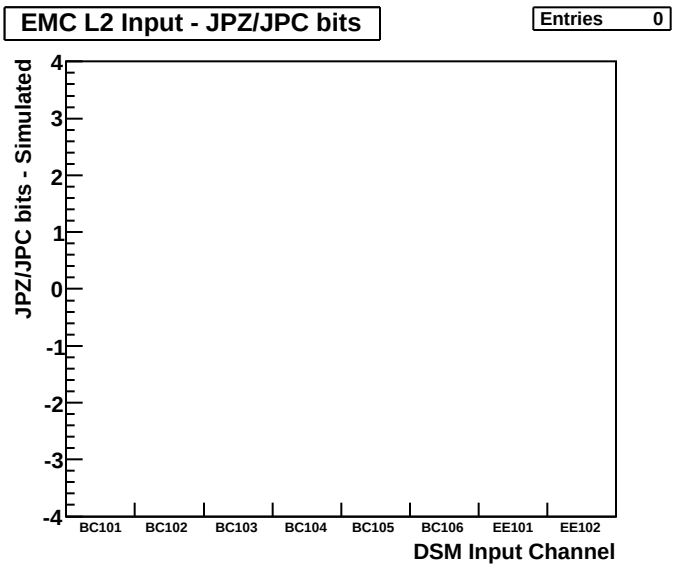

EMC L2 Input - JPX/JPA bits
Entries 310536
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

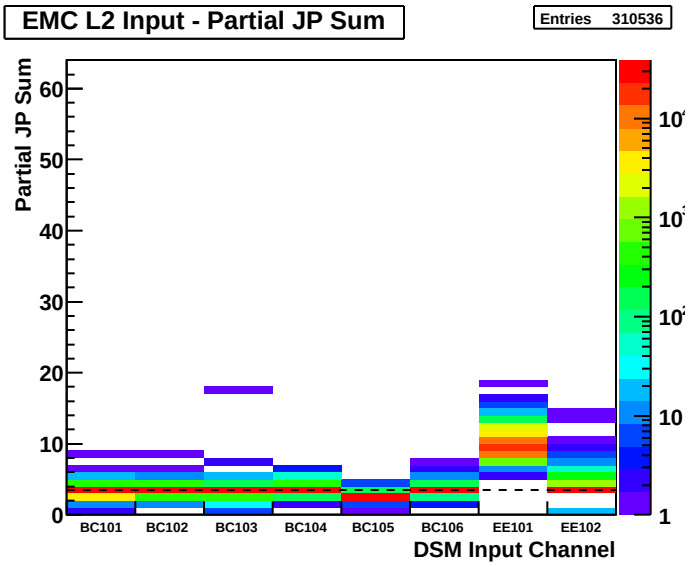

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

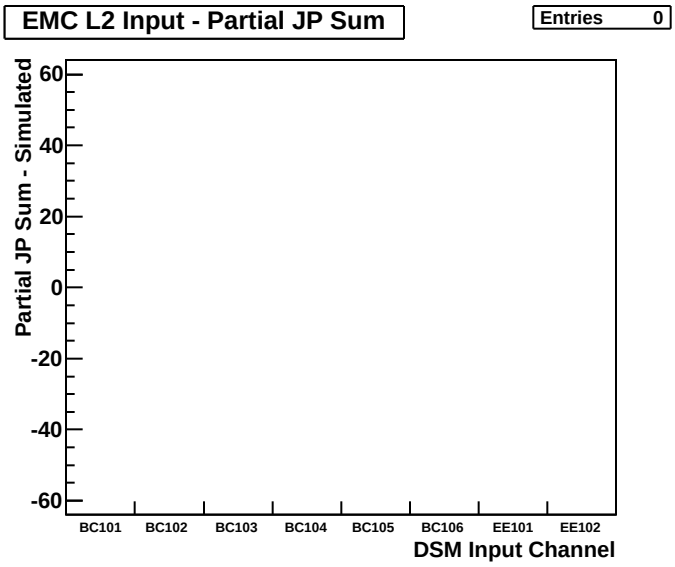

EMC L2 Input - JPY/JPB bits
Entries 310536
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

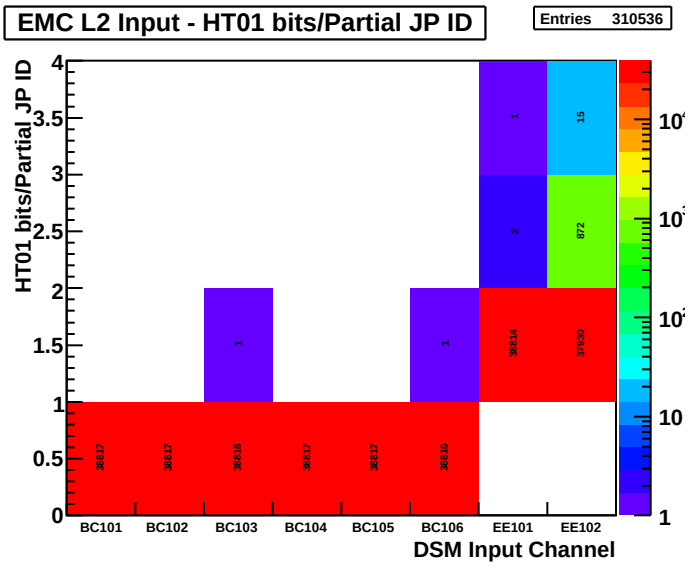

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

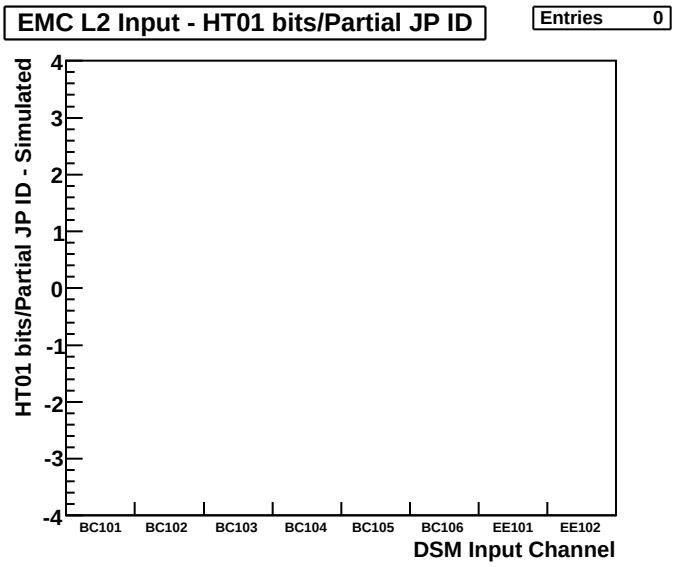

EMC L2 Input - JPZ/JPC bits
Entries 310536
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

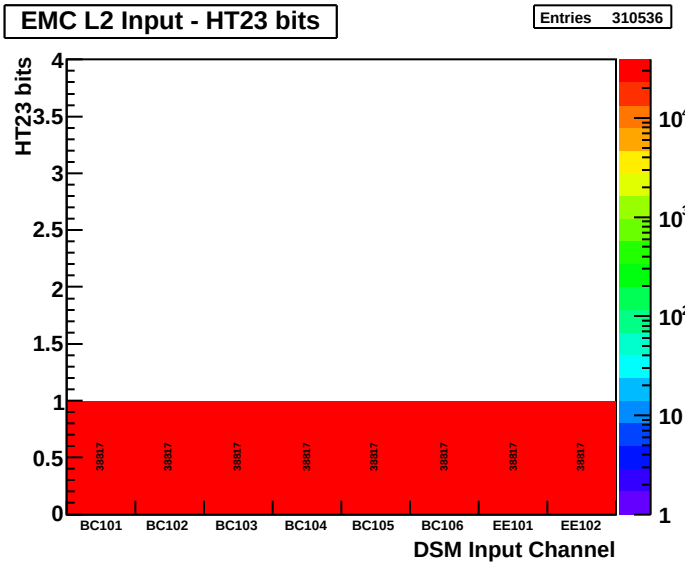

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

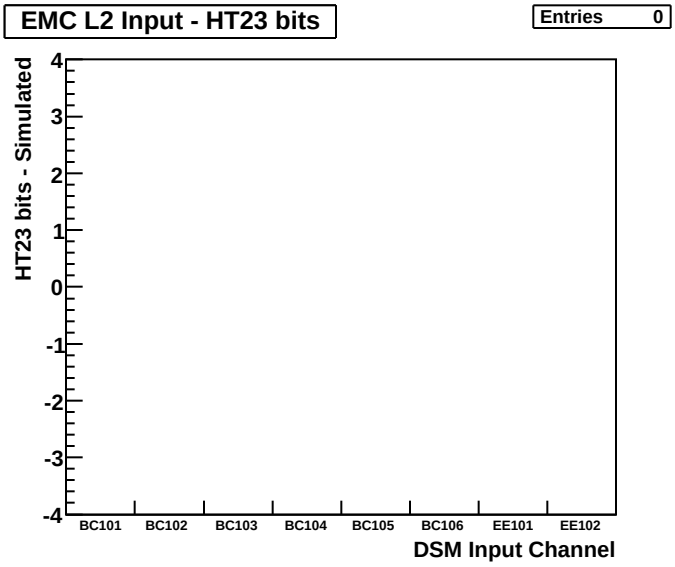

EMC L2 Input - Partial JP Sum
Entries 310536
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

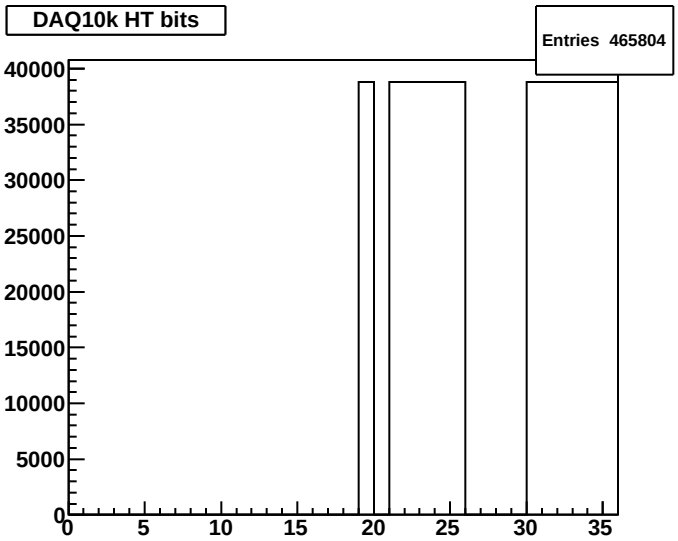

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

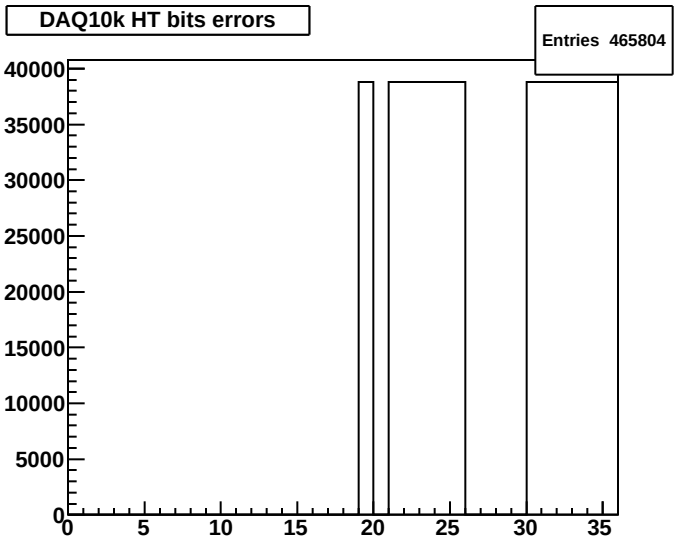

EMC L2 Input - HT01 bits/Partial JP ID
Entries 310536
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

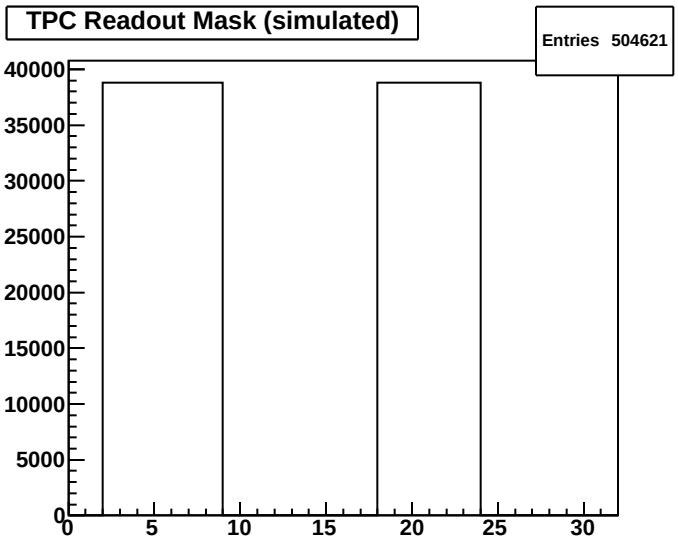

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

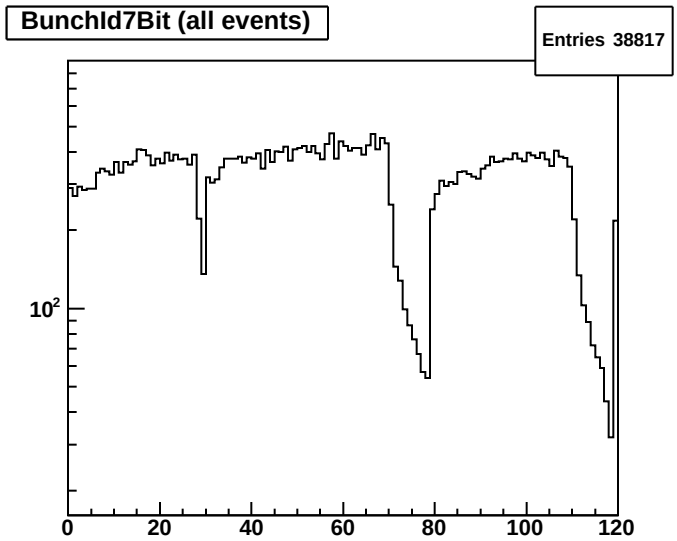

EMC L2 Input - HT23 bits
Entries 310536
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

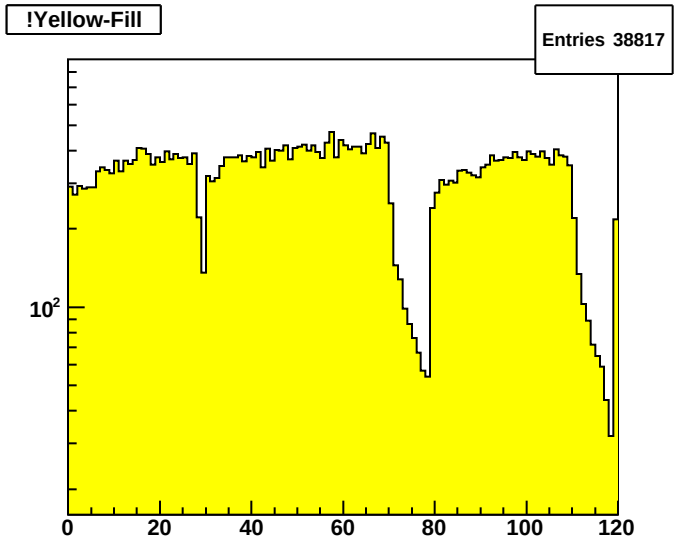

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

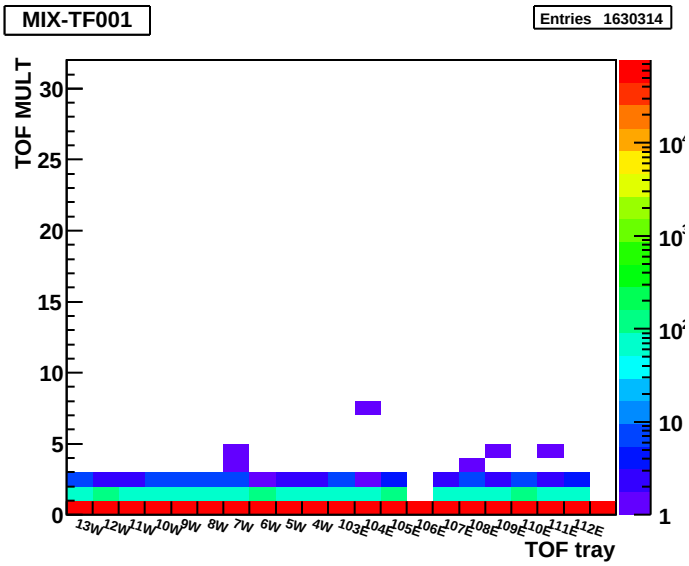

DAQ10k HT bits
Entries 465804
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

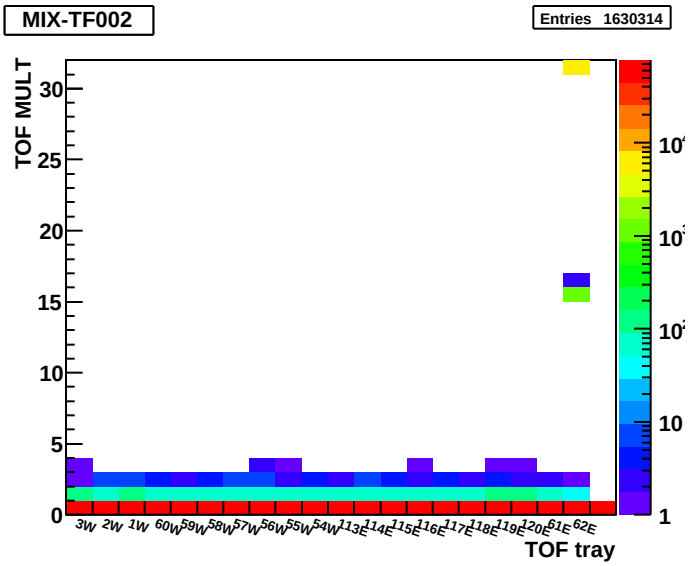

DAQ10k HT bits errors
Entries 465804
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

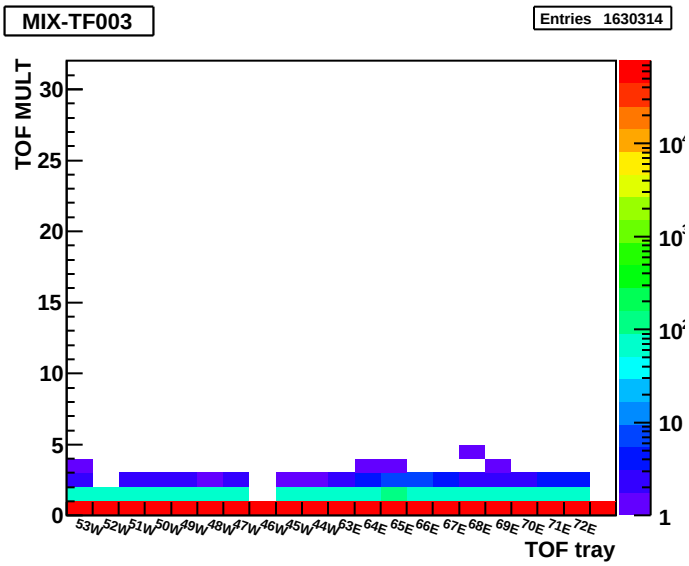

TPC Readout Mask (simulated)
Entries 504621
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

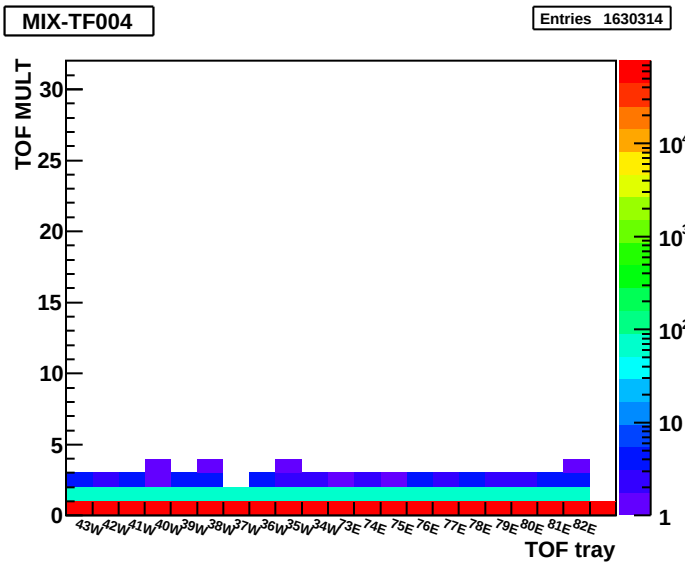

BunchId7Bit (all events)
Entries 38817
$10^2$
0 20 40 60 80 100 120

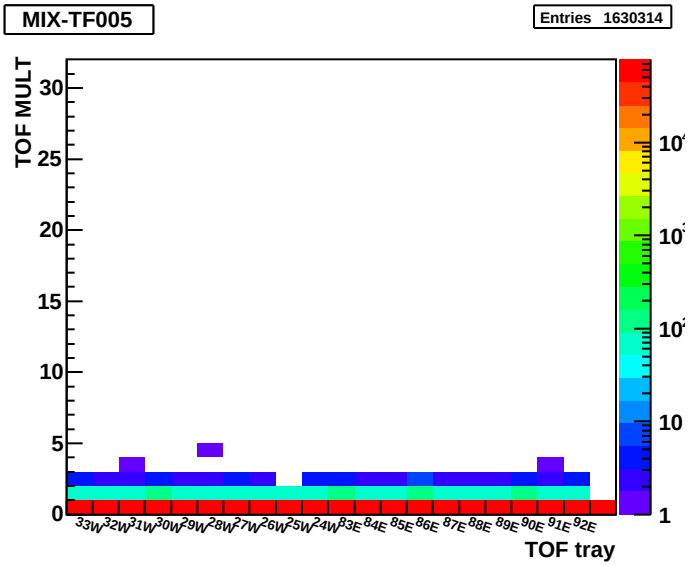

!Yellow-Fill
Entries 38817
$10^2$
0 20 40 60 80 100 120

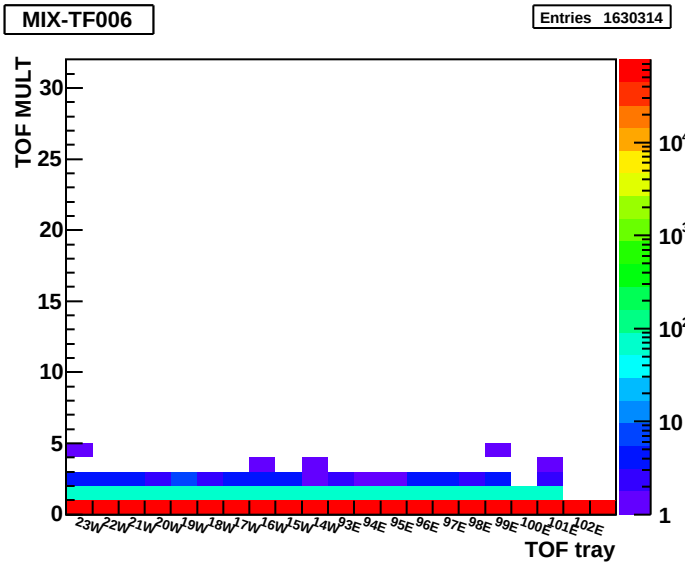

MIX-TF001
Entries 1630314
TOF MULT
TOF tray


MIX-TF002
Entries 1630314
TOF MULT
TOF tray

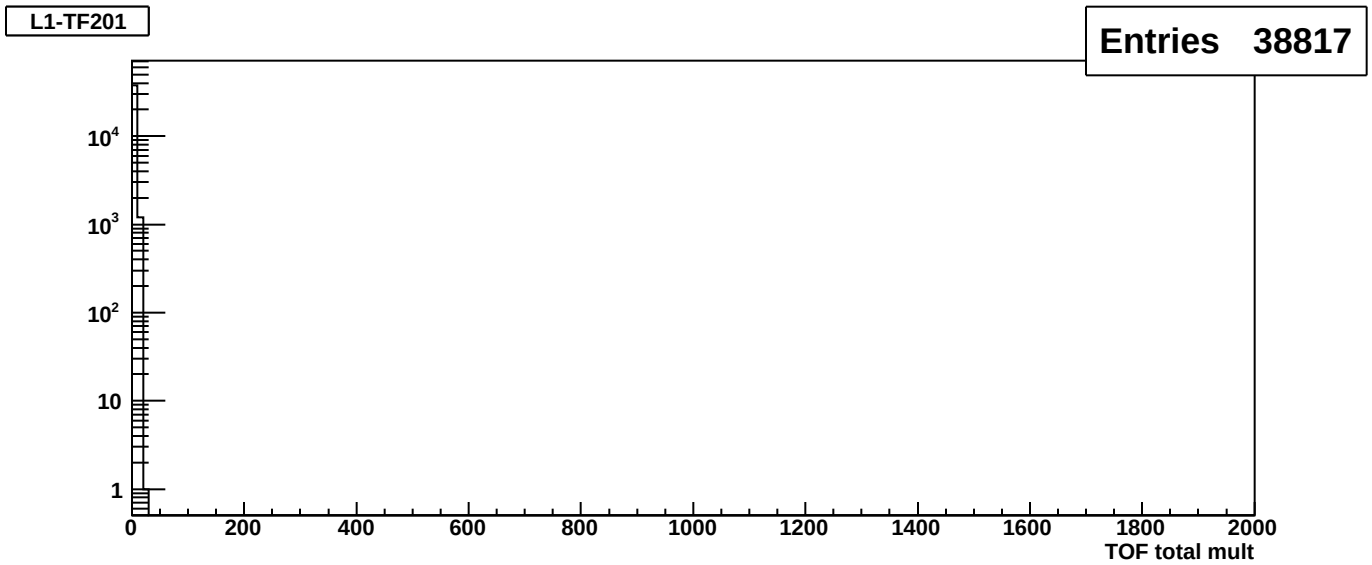

MIX-TF003
Entries 1630314
TOF MULT
TOF tray

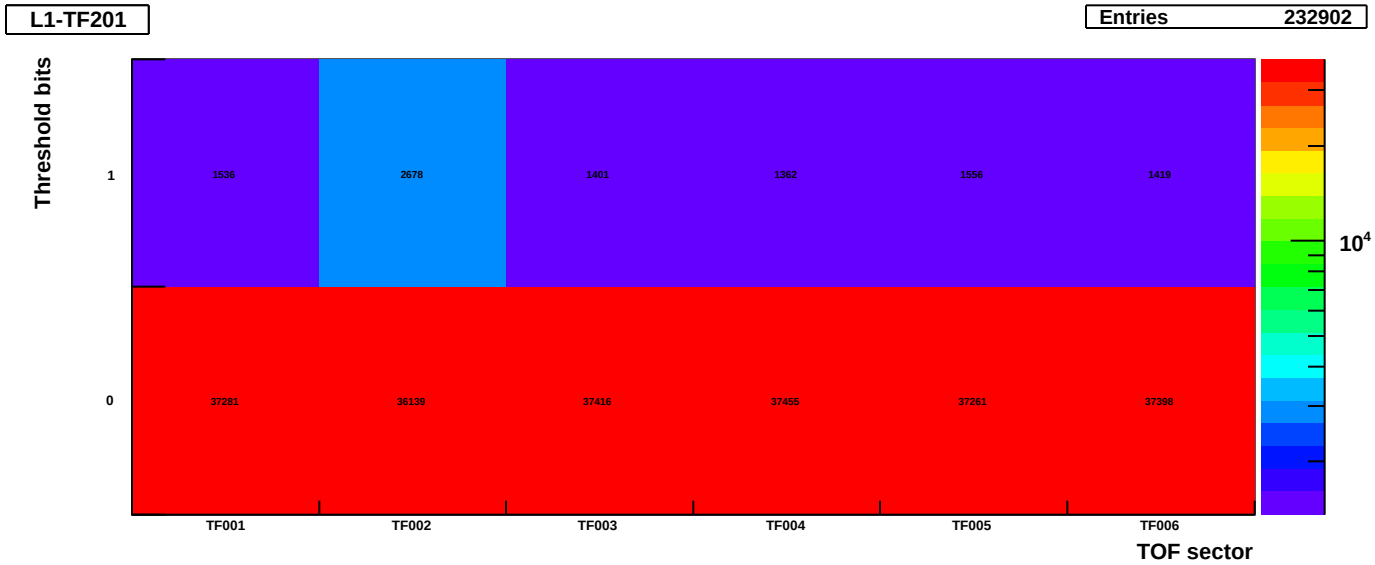

MIX-TF004
Entries 1630314
TOF MULT
TOF tray

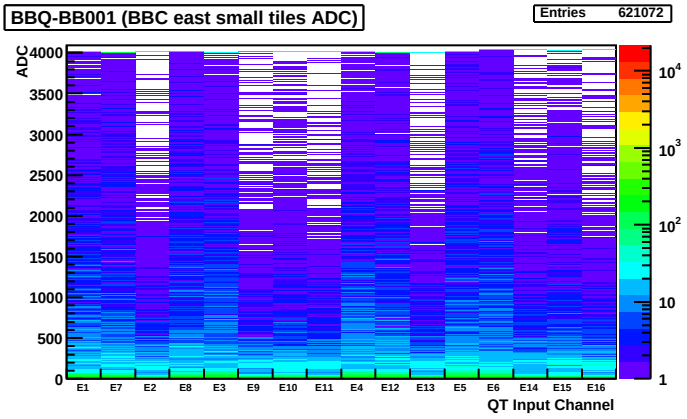

MIX-TF005
Entries 1630314
TOF MULT
TOF tray

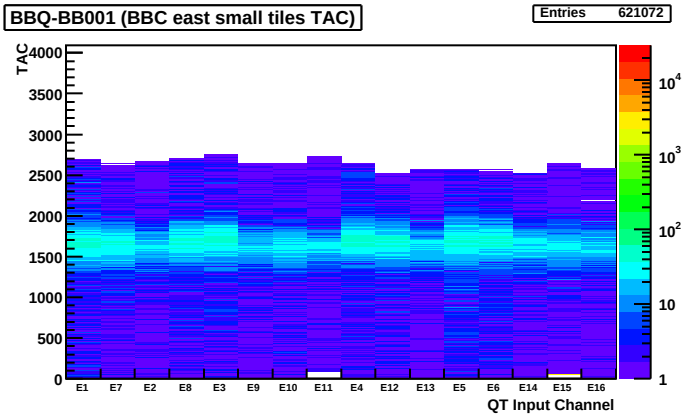

MIX-TF006
Entries 1630314
TOF MULT
TOF tray

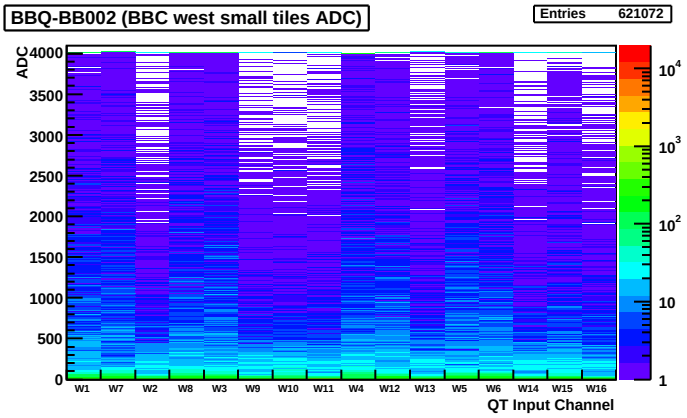
MIX-TF101
Entries 232902
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^4$
$10^3$
$10^2$
10
1

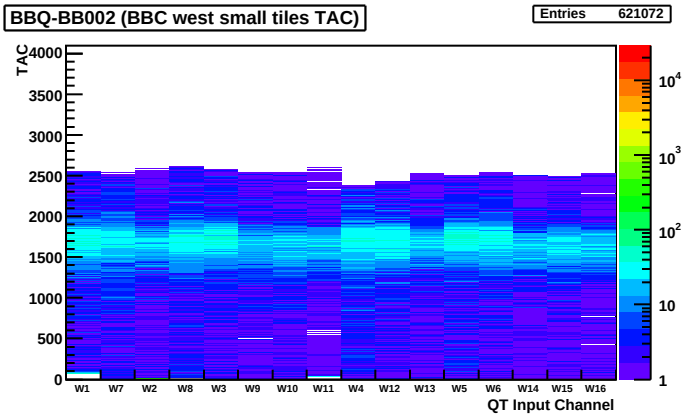

L1-TF201
Entries 38817
$10^4$
$10^3$
$10^2$
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

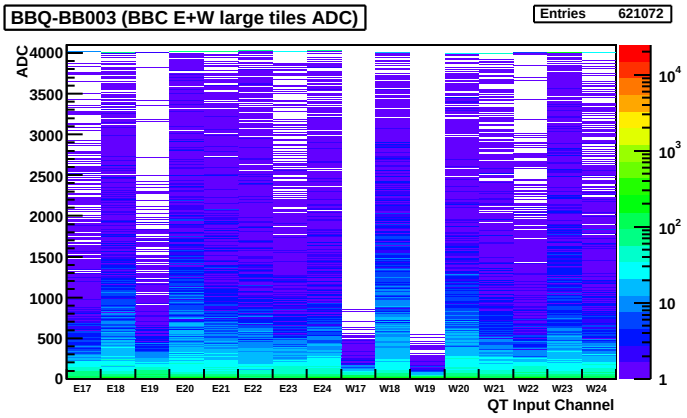

L1-TF201
Entries 232902
Threshold bits
1
0
1536
2678
1401
1362
1556
1419
37281
36139
37416
37455
37261
37398
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
$10^4$

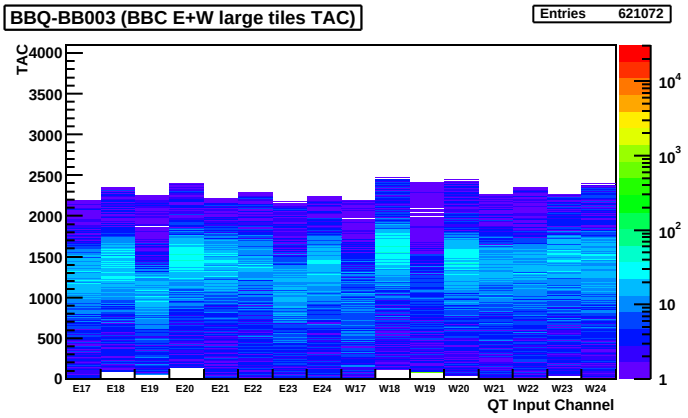

BBQ-BB001 (BBC east small tiles ADC)
Entries 621072
ADC
QT Input Channel

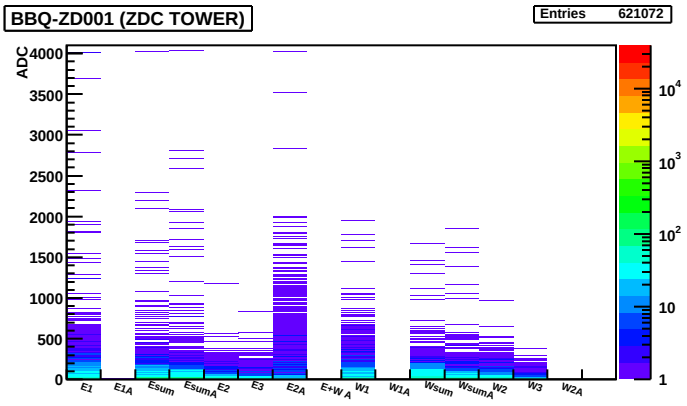

BBQ-BB001 (BBC east small tiles TAC)
Entries 621072
TAC
QT Input Channel

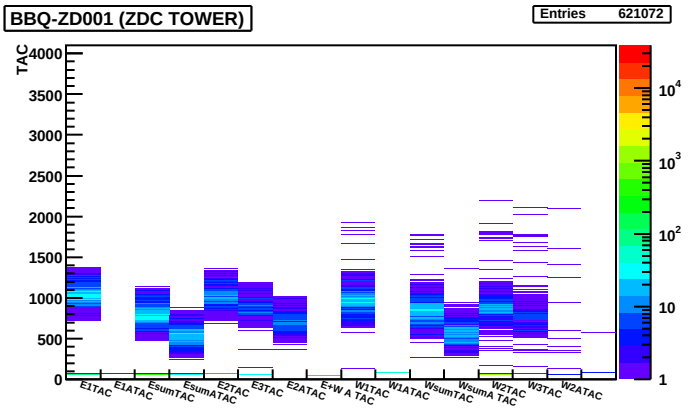

BBQ-BB002 (BBC west small tiles ADC)
Entries 621072
ADC
QT Input Channel

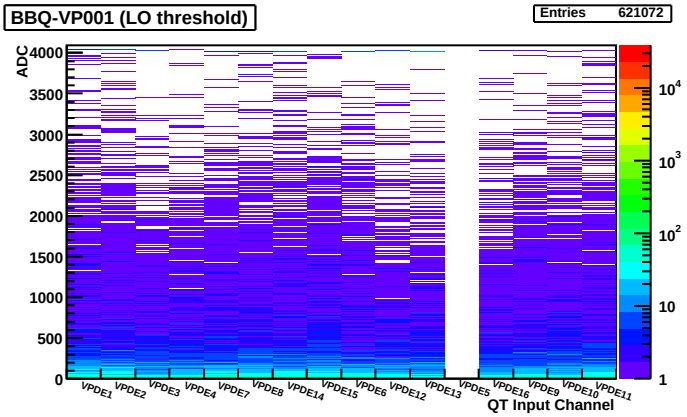

BBQ-BB002 (BBC west small tiles TAC)
Entries 621072
TAC
QT Input Channel

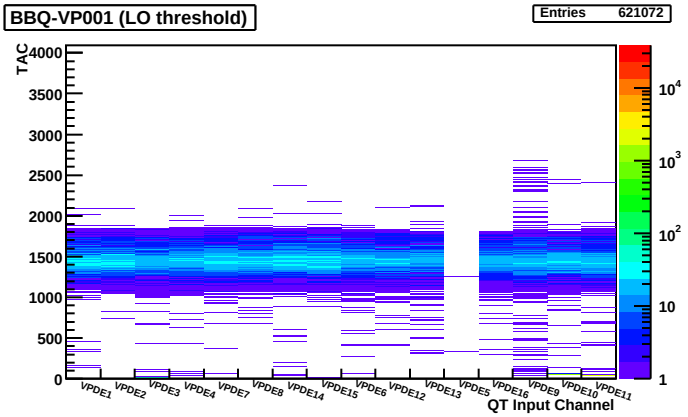

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 621072
ADC
QT Input Channel

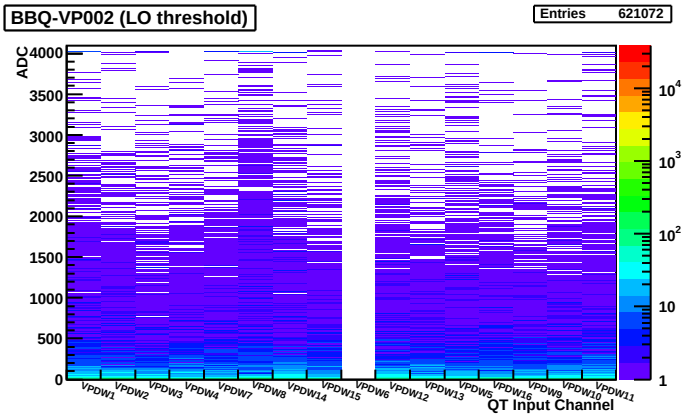

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 621072
TAC
QT Input Channel

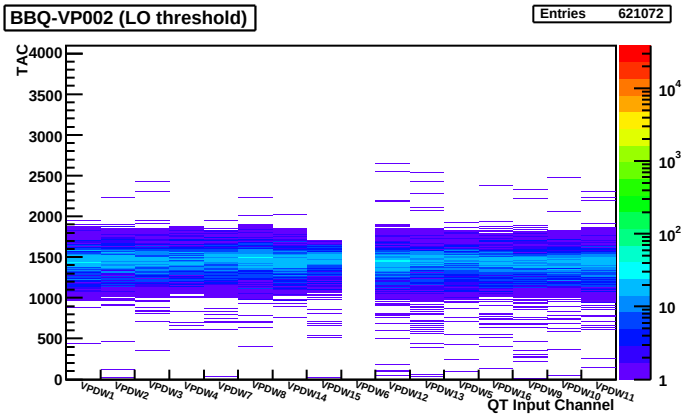

BBQ-ZD001 (ZDC TOWER)
Entries 621072
ADC

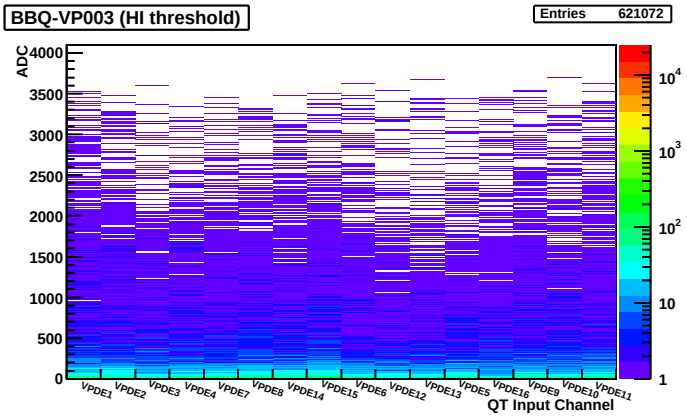

BBQ-ZD001 (ZDC TOWER)
Entries 621072
TAC

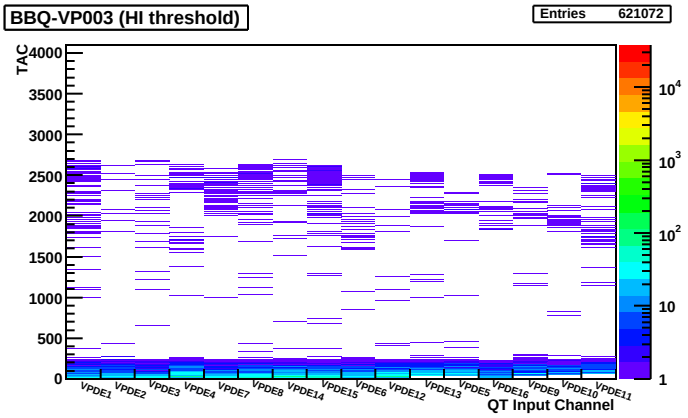

BBQ-VP001 (LO threshold)
Entries 621072
ADC
QT Input Channel

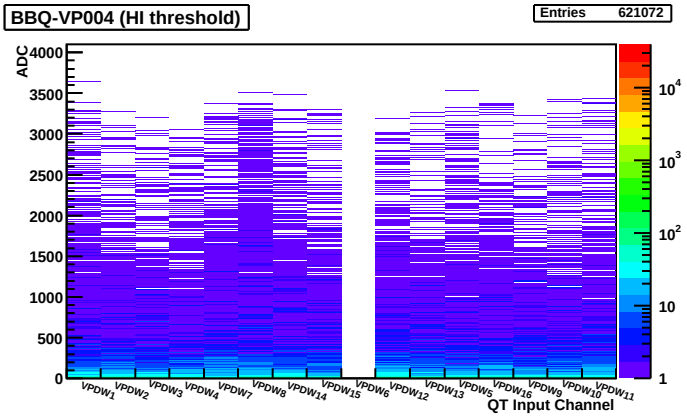

BBQ-VP001 (LO threshold)
Entries 621072
TAC
QT Input Channel

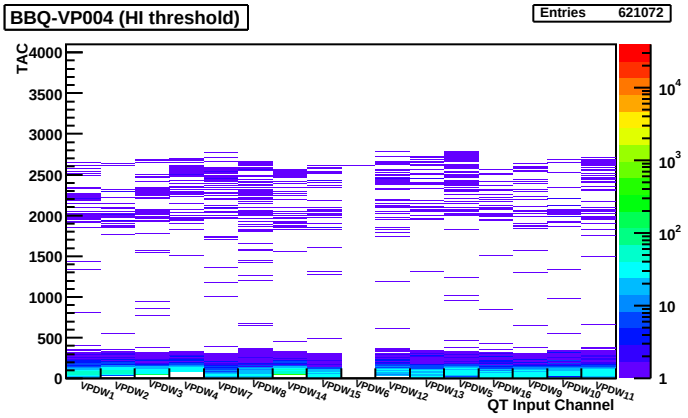

BBQ-VP002 (LO threshold)
Entries 621072
ADC
QT Input Channel

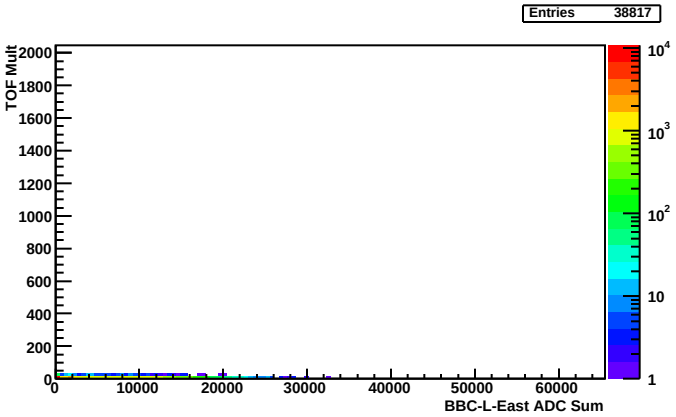

BBQ-VP002 (LO threshold)
Entries 621072
TAC
QT Input Channel

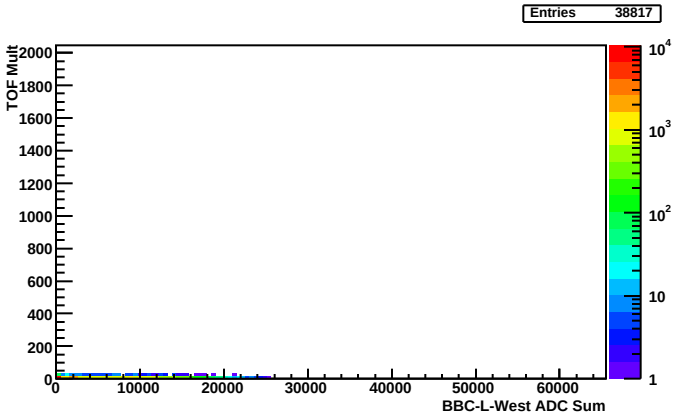

BBQ-VP003 (HI threshold)
Entries 621072
ADC
QT Input Channel

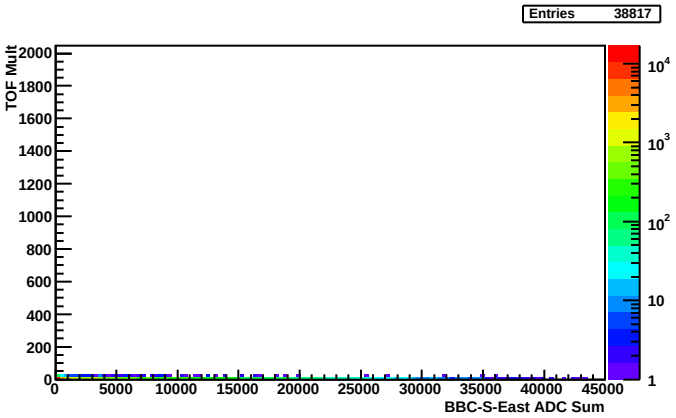

BBQ-VP003 (HI threshold)
Entries 621072
TAC
QT Input Channel

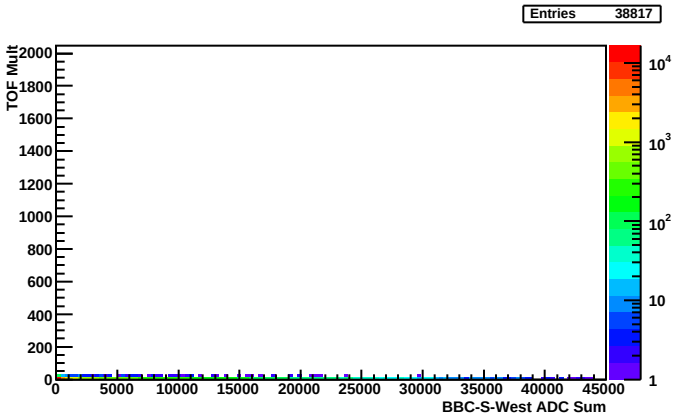

BBQ-VP004 (HI threshold)
Entries 621072
ADC
QT Input Channel

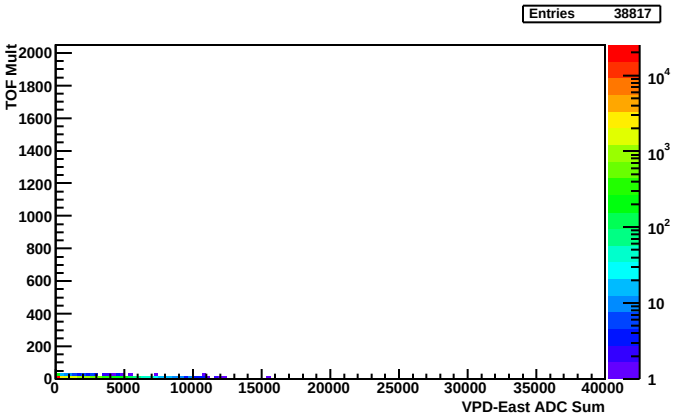

BBQ-VP004 (HI threshold)
Entries 621072
TAC
QT Input Channel

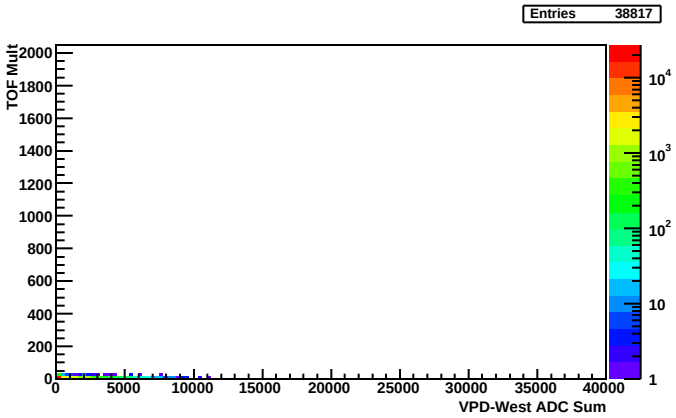

Entries 38817
TOF Mult
BBC-L-East ADC Sum

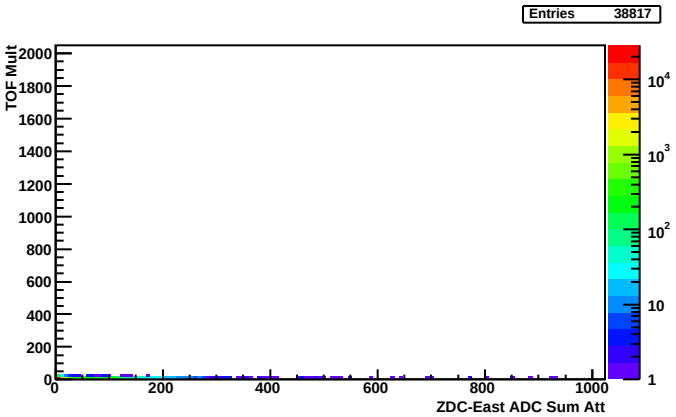

Entries 38817
TOF Mult
BBC-L-West ADC Sum

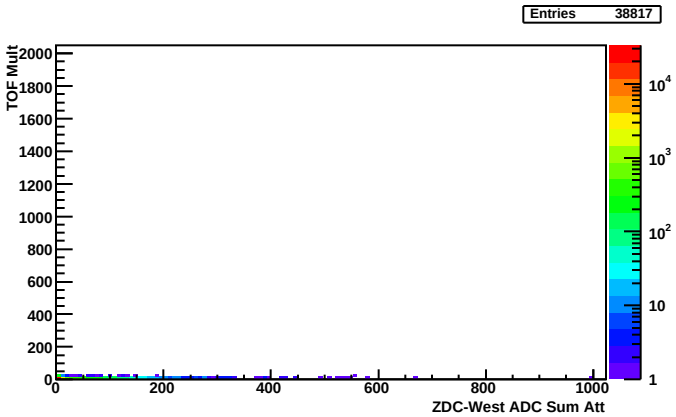

Entries 38817
TOF Mult
BBC-S-East ADC Sum

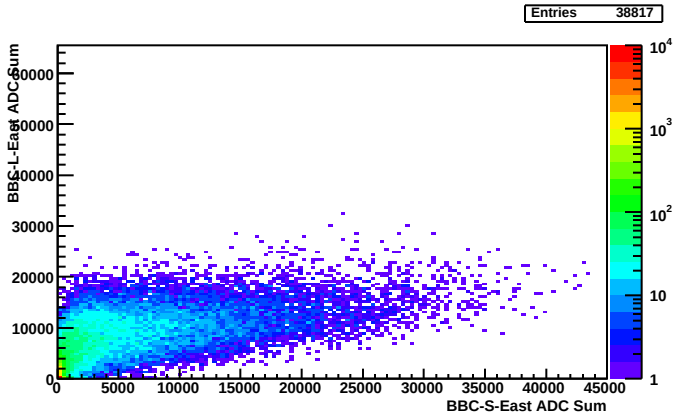

Entries 38817
TOF Mult
BBC-S-West ADC Sum

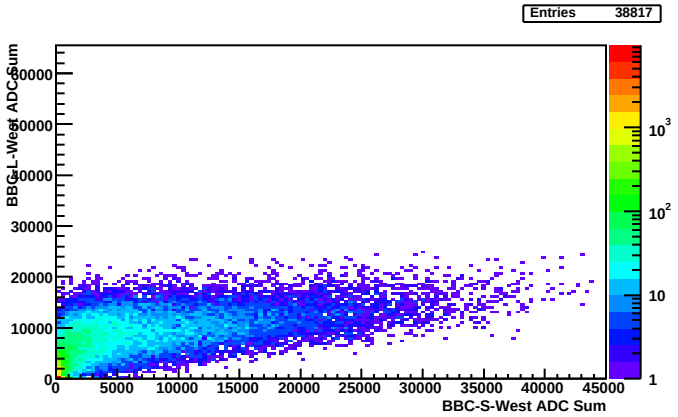

Entries 38817
TOF Mult
VPD-East ADC Sum

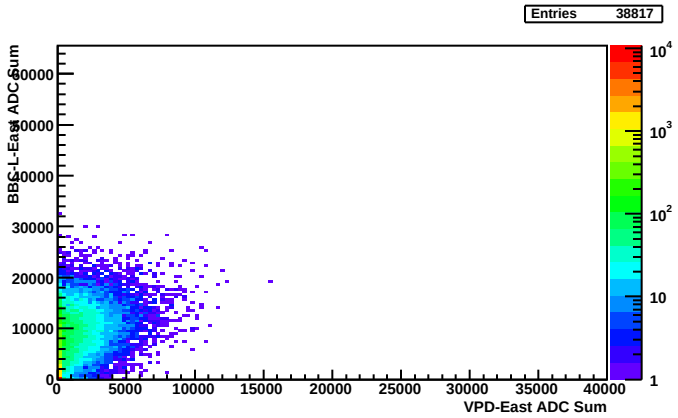

Entries 38817
TOF Mult
VPD-West ADC Sum

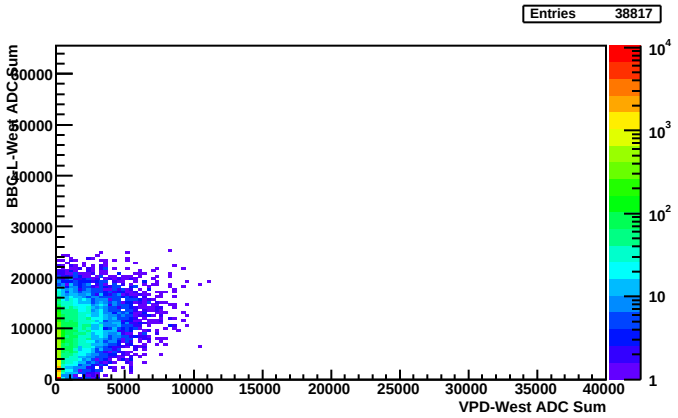

Entries 38817
TOF Mult
ZDC-East ADC Sum Att

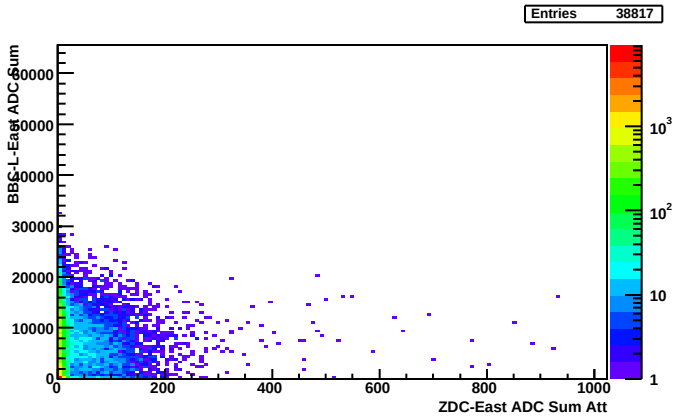

Entries 38817
TOF Mult
ZDC-West ADC Sum Att

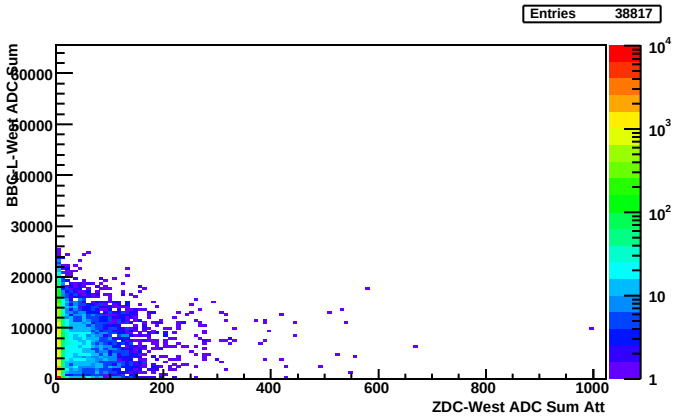

Entries 38817
BBC-L-East ADC Sum
BBC-S-East ADC Sum

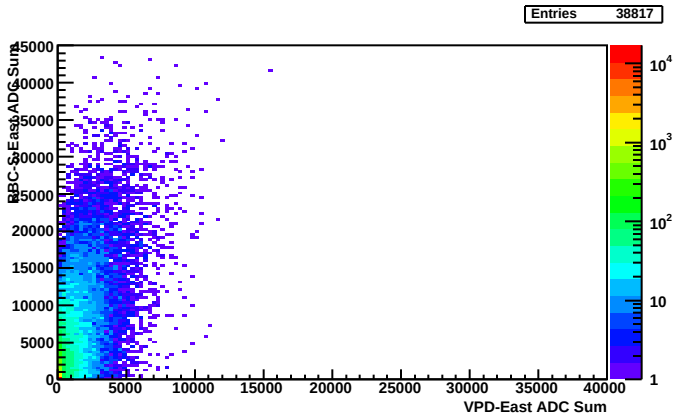

Entries 38817
BBC-L-West ADC Sum
BBC-S-West ADC Sum

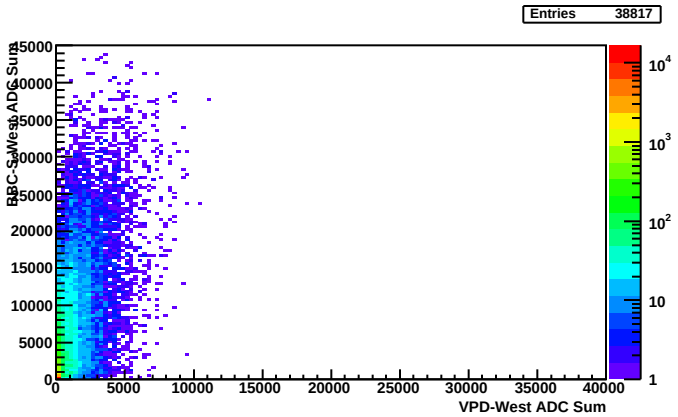

Entries 38817
BBC-L-East ADC Sum
VPD-East ADC Sum

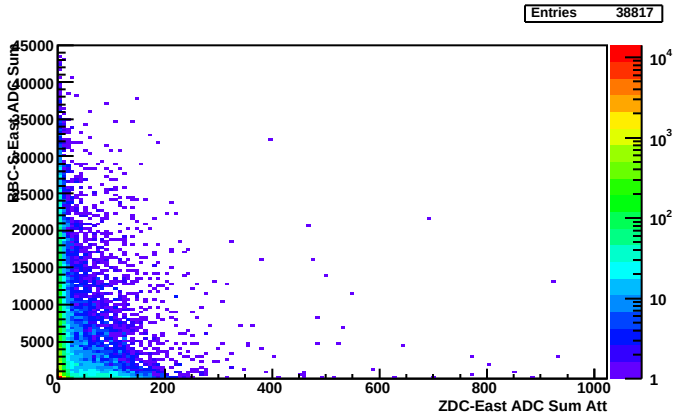

Entries 38817
BBC-L-West ADC Sum
VPD-West ADC Sum

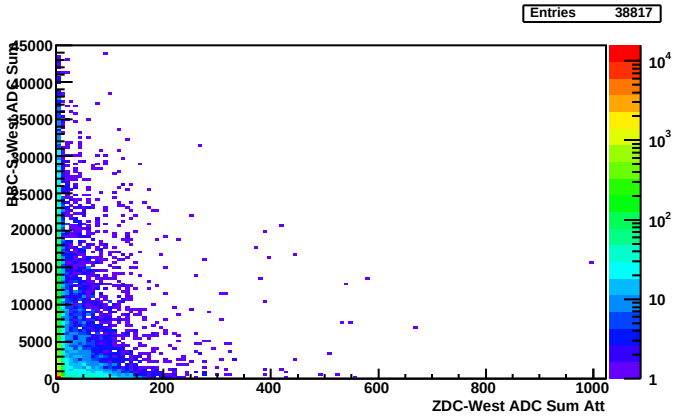

Entries 38817
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

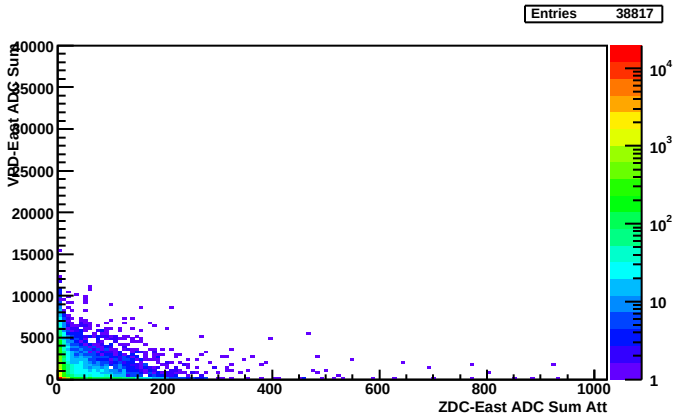

Entries 38817
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

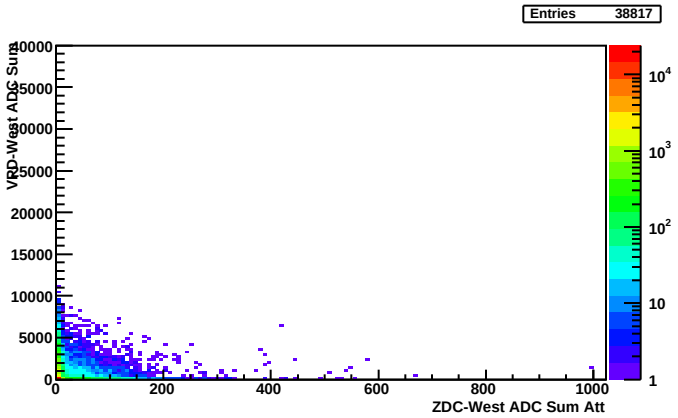

Entries 38817
BBC-S-East ADC Sum
VPD-East ADC Sum

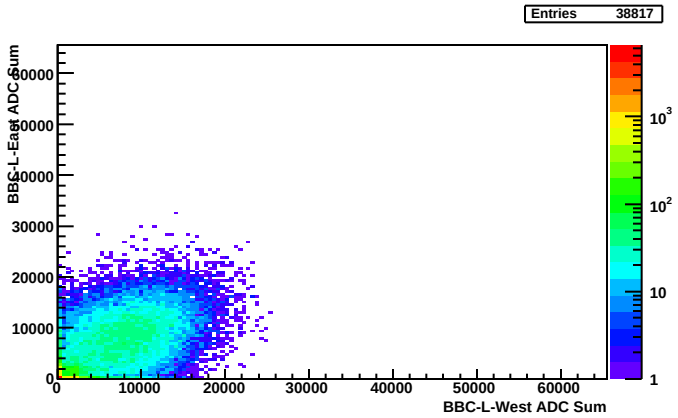

Entries 38817
BBC-S-West ADC Sum
VPD-West ADC Sum

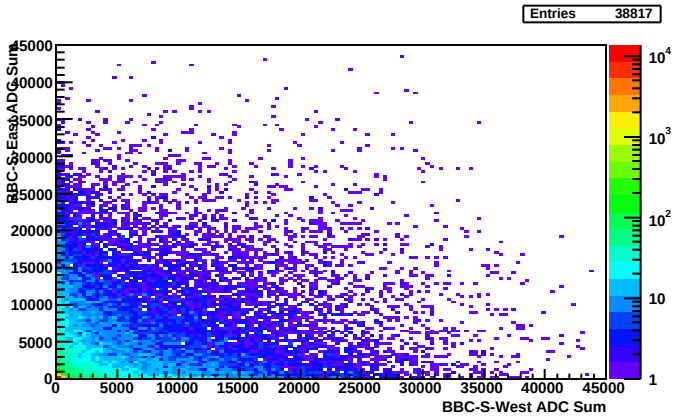

Entries 38817
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

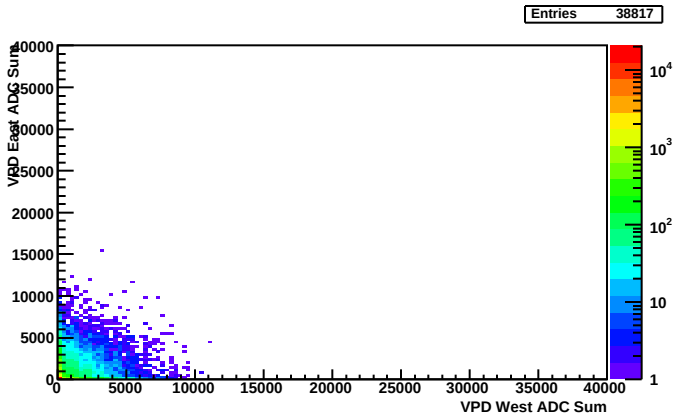

Entries 38817
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

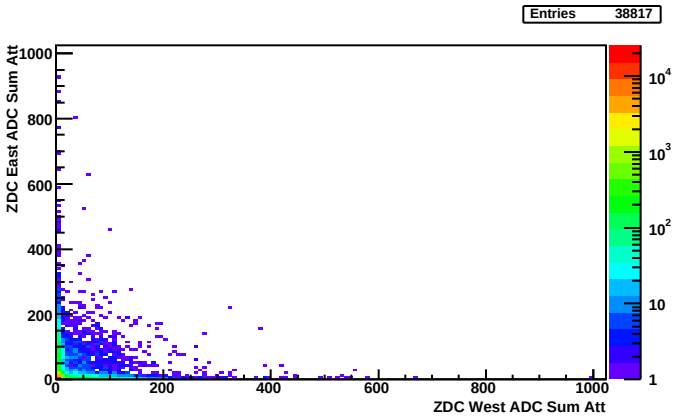

Entries 38817
VPD-East ADC Sum
ZDC-East ADC Sum Att

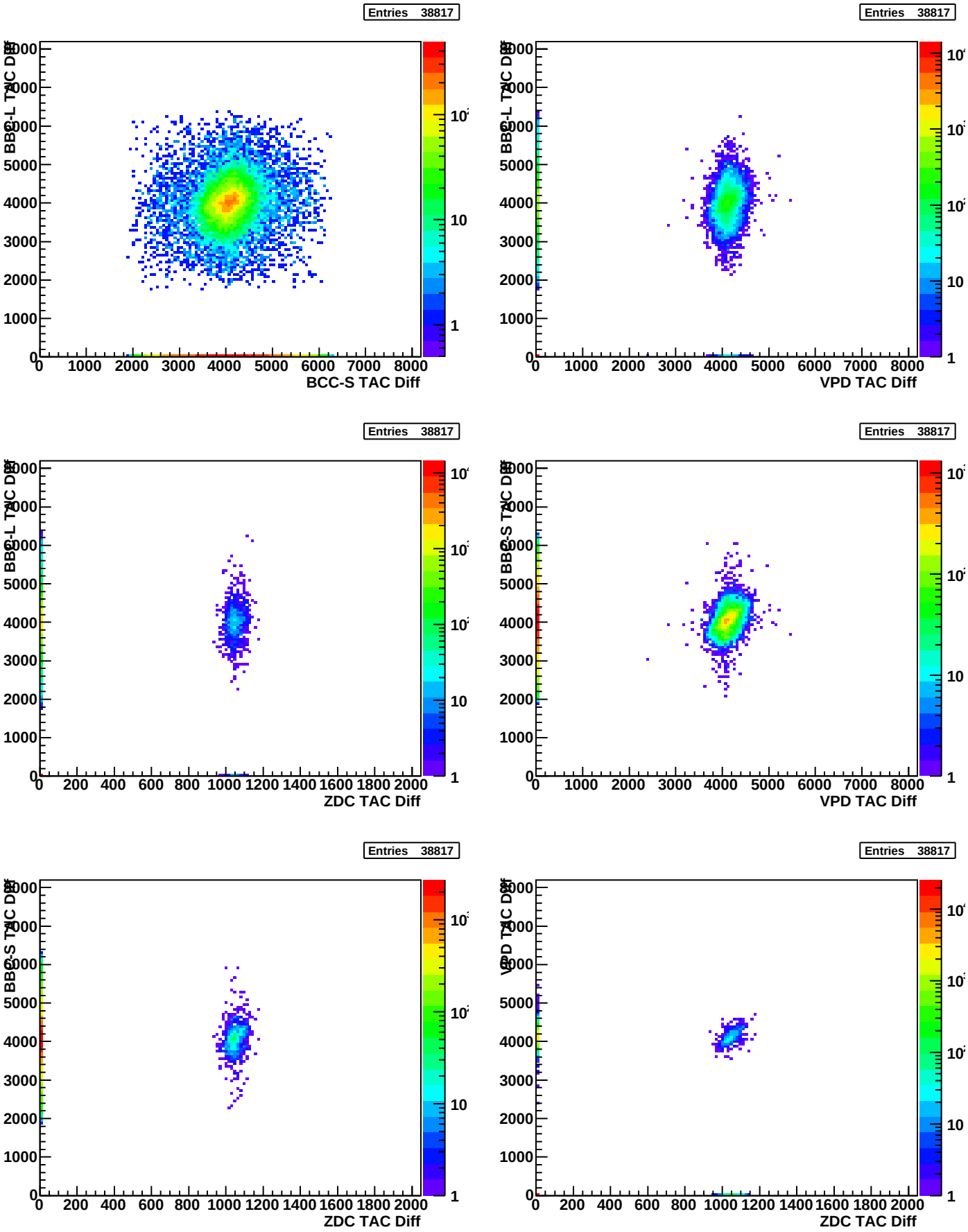

Entries 38817
VPD-West ADC Sum
ZDC-West ADC Sum Att

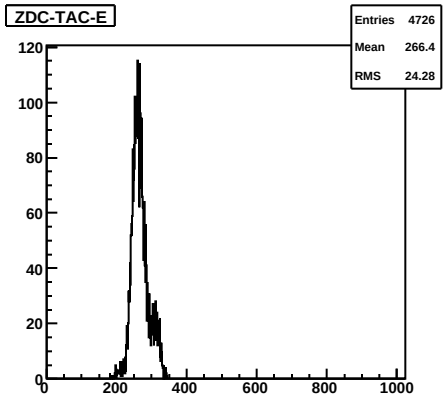

Entries 38817
BBC-L-East ADC Sum
BBC-L-West ADC Sum

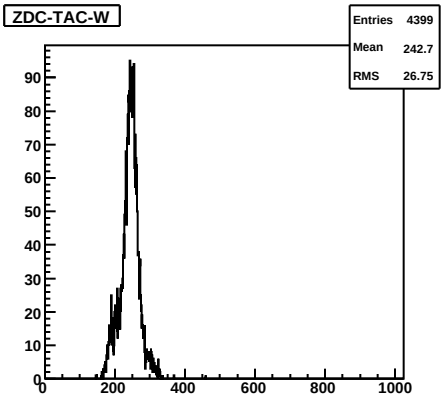

Entries 38817
BBC-S-East ADC Sum
BBC-S-West ADC Sum

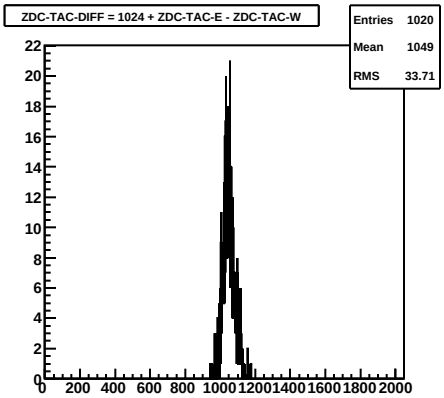

Entries 38817
VPD East ADC Sum
VPD West ADC Sum

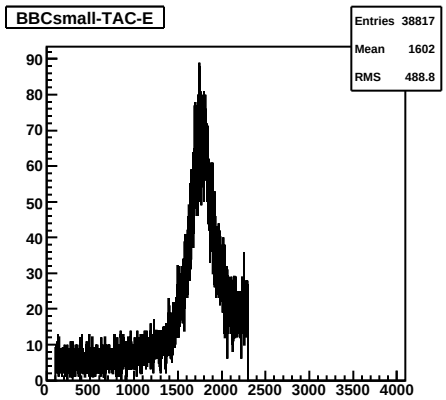

Entries 38817
ZDC East ADC Sum Att
ZDC West ADC Sum Att

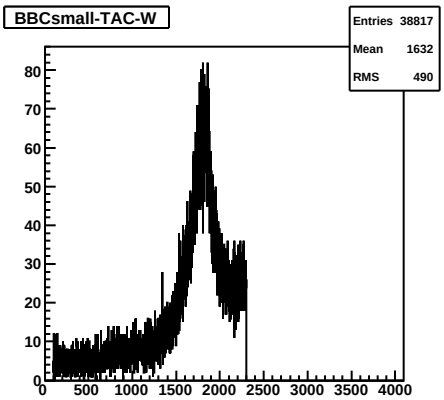

Entries 38817
BBC-L TAC Diff
BCC-S TAC Diff
Entries 38817
BBC-L TAC Diff
VPD TAC Diff
Entries 38817
BBC-L TAC Diff
ZDC TAC Diff
Entries 38817
BBC-S TAC Diff
VPD TAC Diff
Entries 38817
BBC-S TAC Diff
ZDC TAC Diff
Entries 38817
VPD TAC Diff
ZDC TAC Diff

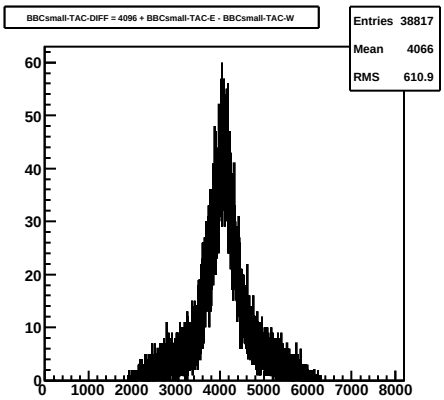

ZDC-TAC-E
Entries 4726
Mean 266.4
RMS 24.28

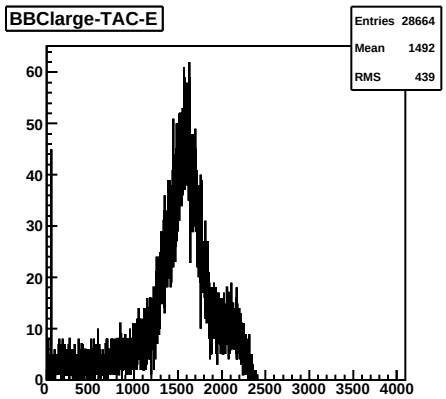

ZDC-TAC-W
Entries 4399
Mean 242.7
RMS 26.75

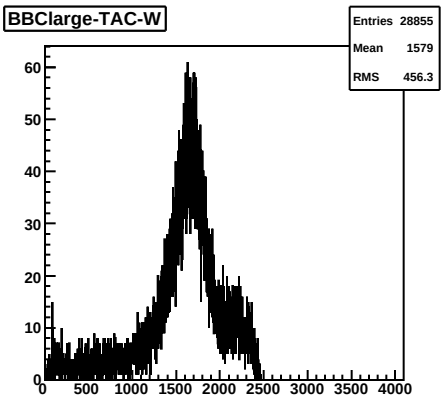

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1020
Mean 1049
RMS 33.71

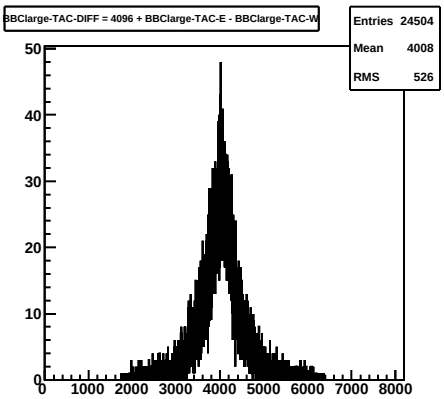

BBCsmall-TAC-E
Entries 38817
Mean 1602
RMS 488.8

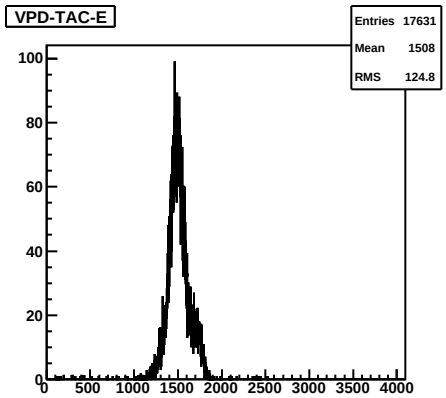

BBCsmall-TAC-W
Entries 38817
Mean 1632
RMS 490

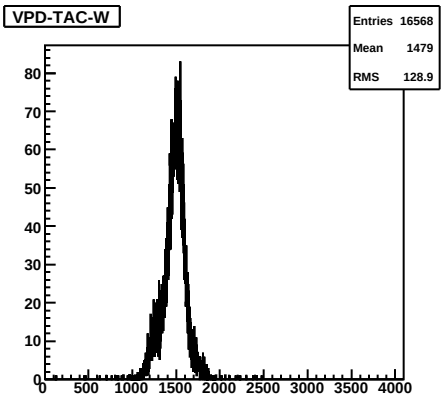

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 38817
Mean 4066
RMS 610.9

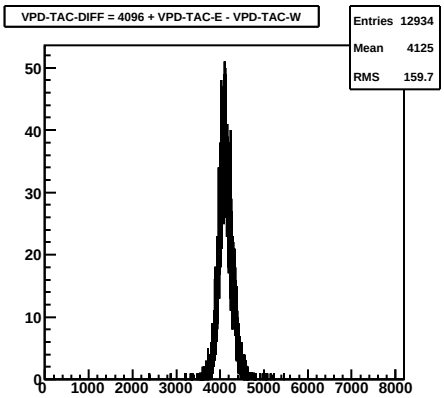

BBClarge-TAC-E
Entries 28664
Mean 1492
RMS 439

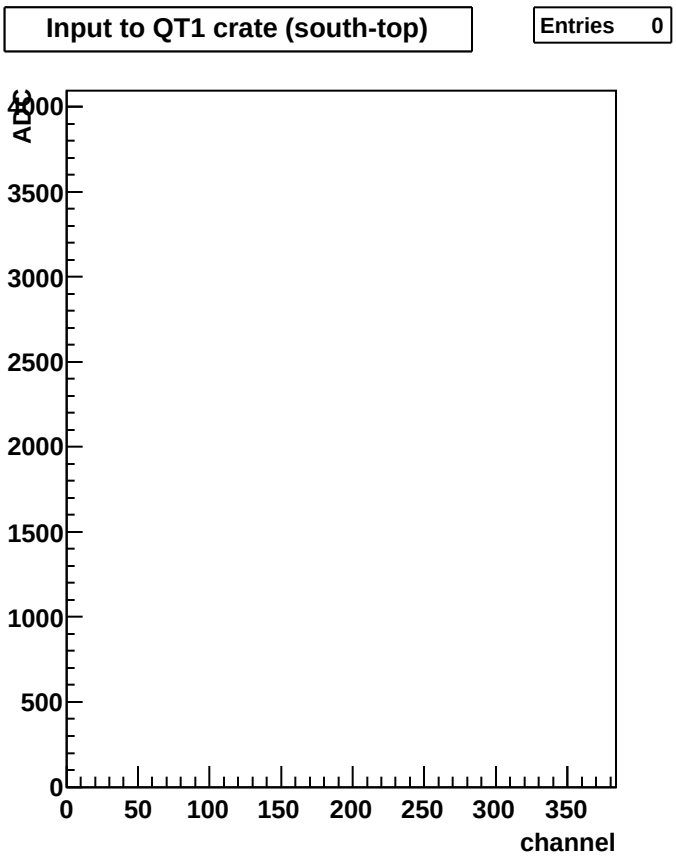

BBClarge-TAC-W
Entries 28855
Mean 1579
RMS 456.3

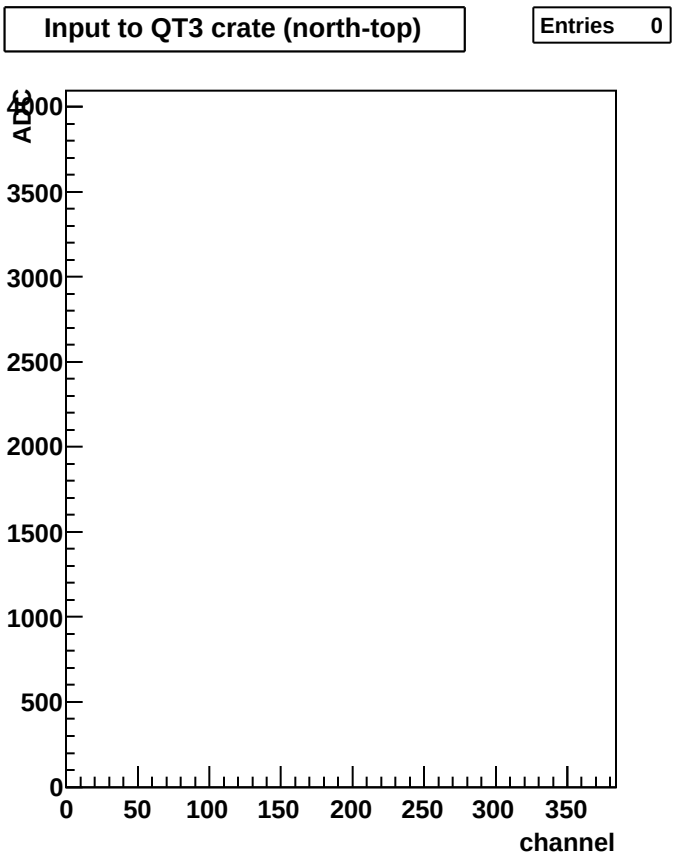

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 24504
Mean 4008
RMS 526

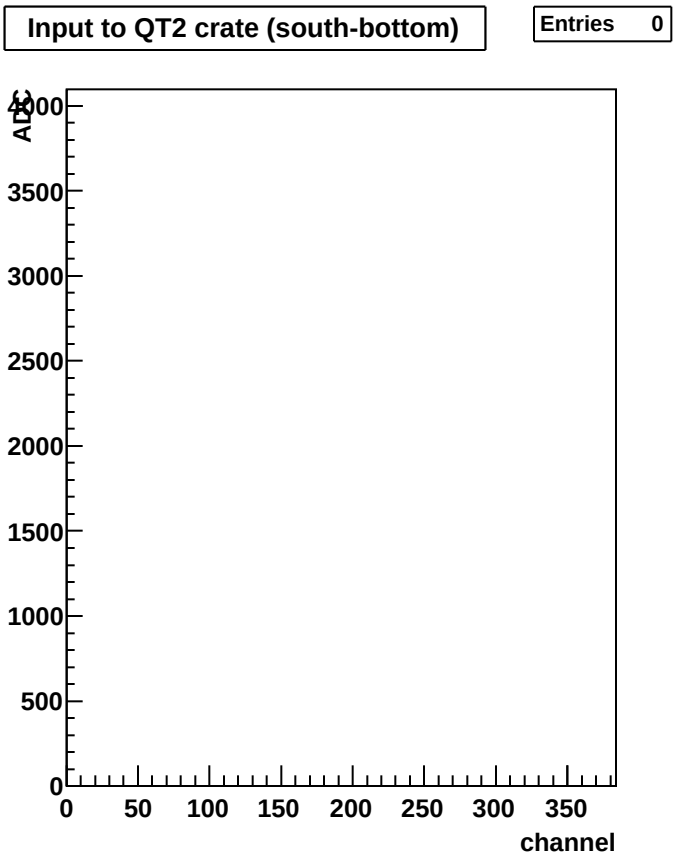

VPD-TAC-E
Entries 17631
Mean 1508
RMS 124.8

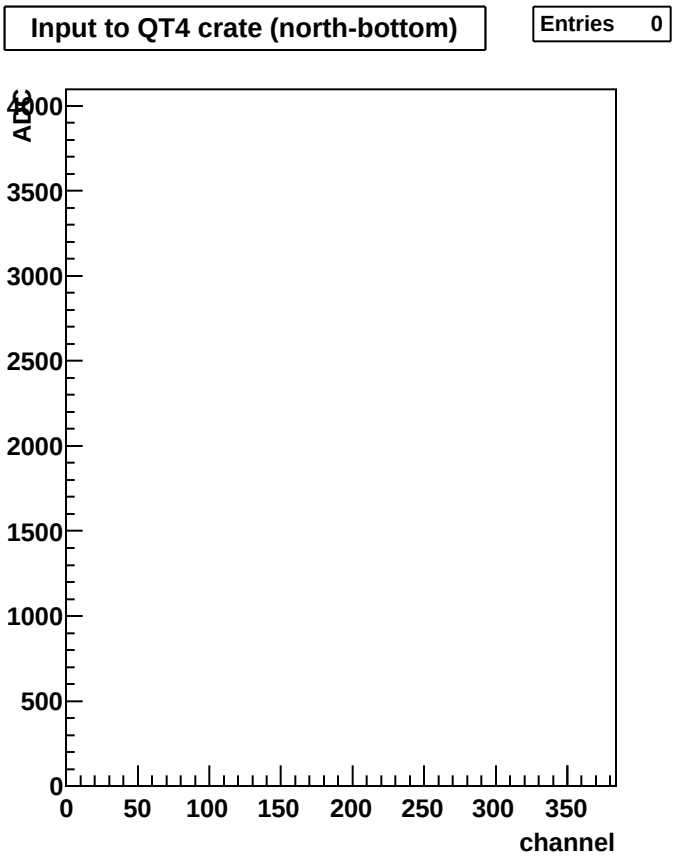

VPD-TAC-W
Entries 16568
Mean 1479
RMS 128.9

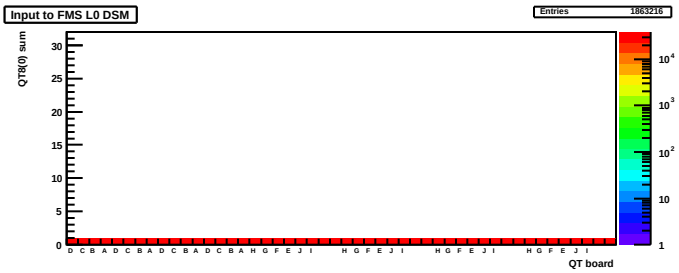

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 12934
Mean 4125
RMS 159.7

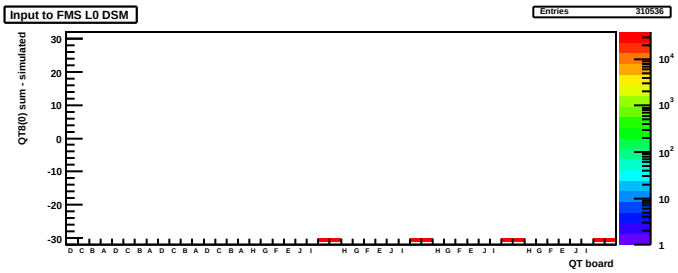

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

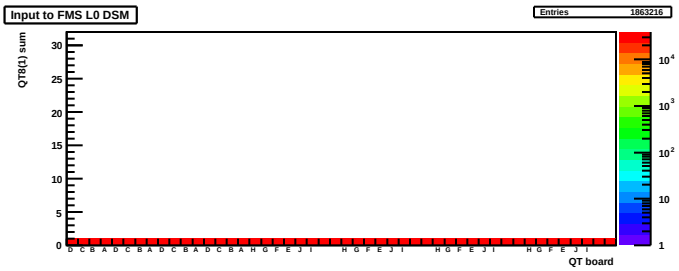

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

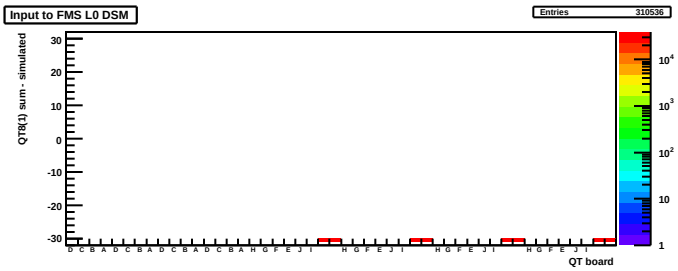

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

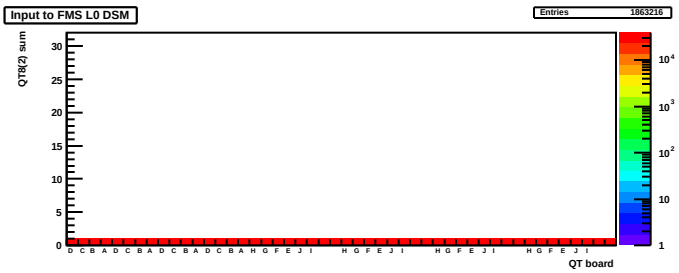

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

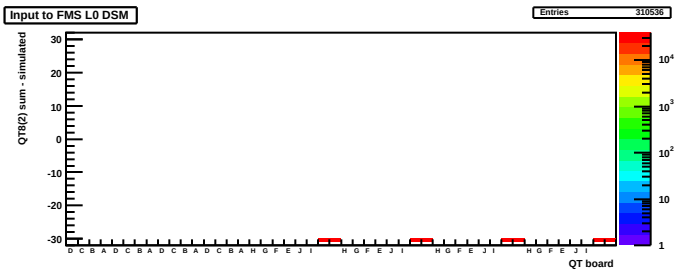

Input to FMS L0 DSM
Entries 1863216
QT8(0) sum
QT board

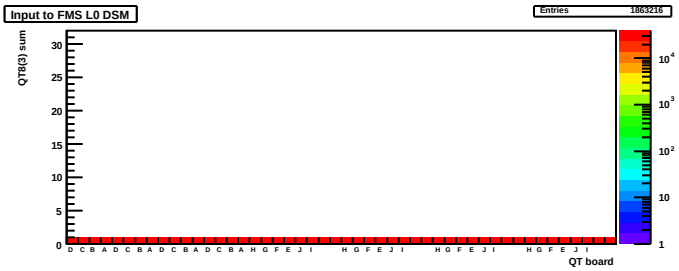

Input to FMS L0 DSM
Entries 310536
QT8(0) sum - simulated
QT board

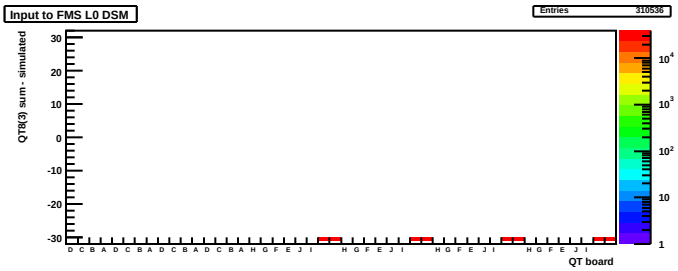

Input to FMS L0 DSM
Entries 1863216
QT8(1) sum
QT board

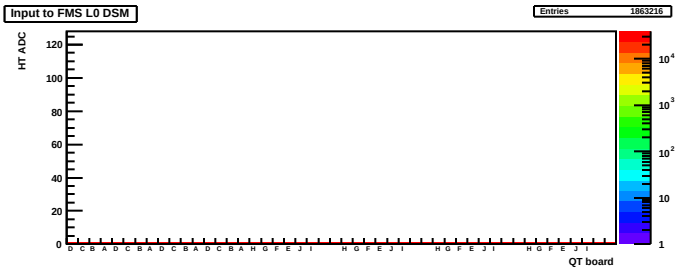

Input to FMS L0 DSM
Entries 310536
QT8(1) sum - simulated
QT board

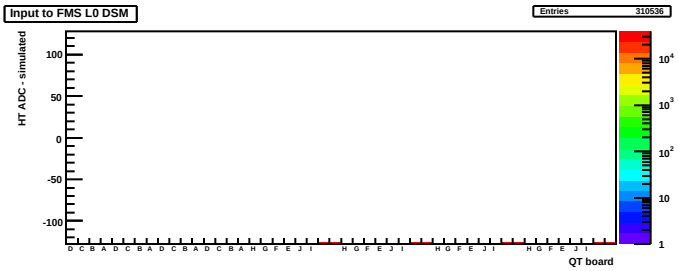

Input to FMS L0 DSM
Entries 1863216
QT8(2) sum
QT board

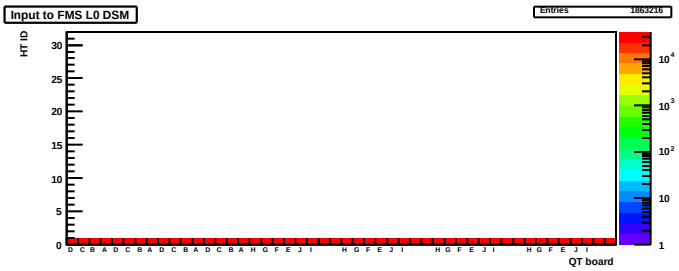

Input to FMS L0 DSM
Entries 310536
QT8(2) sum - simulated
QT board

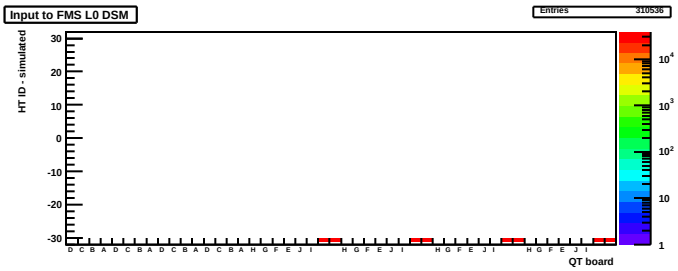

Input to FMS L0 DSM
Entries 1863216
QT8(3) sum
QT board

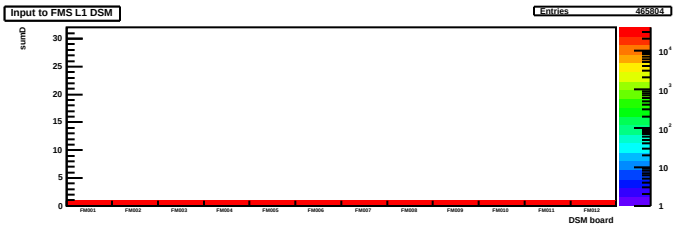

Input to FMS L0 DSM
Entries 310536
QT8(3) sum - simulated
QT board

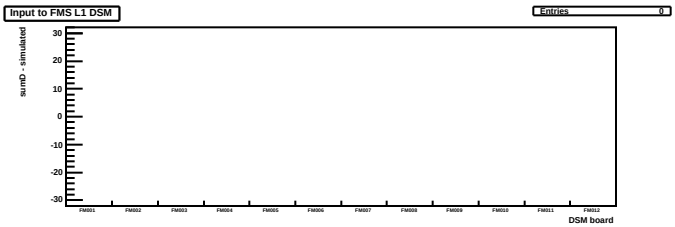

Input to FMS L0 DSM
Entries 1863216
HT ADC
QT board

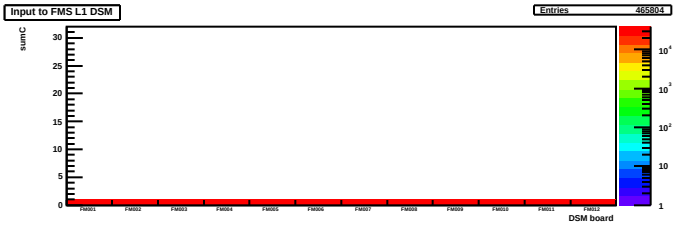

Input to FMS L0 DSM
Entries 310536
HT ADC - simulated
QT board

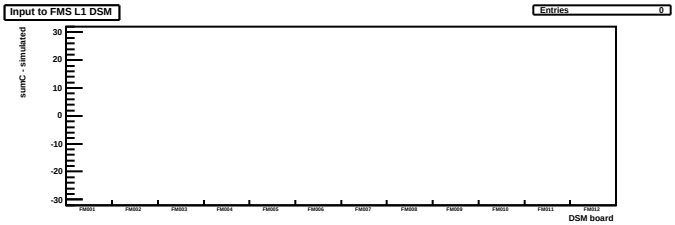

Input to FMS L0 DSM
Entries 1863216
HT ID
QT board

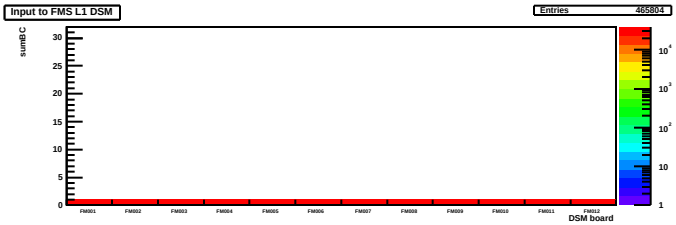

Input to FMS L0 DSM
Entries 310536
HT ID - simulated
QT board

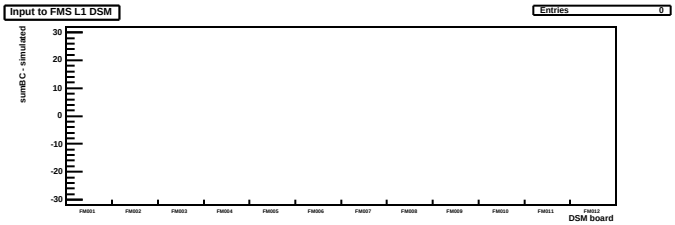

Input to FMS L1 DSM
Entries 465804
sumD
DSM board

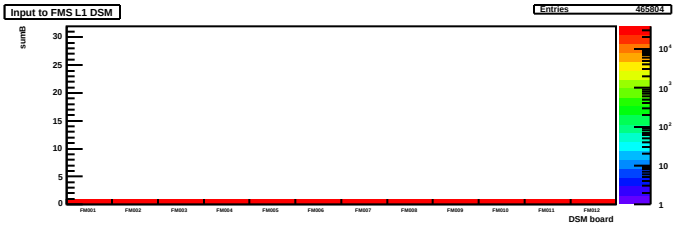

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

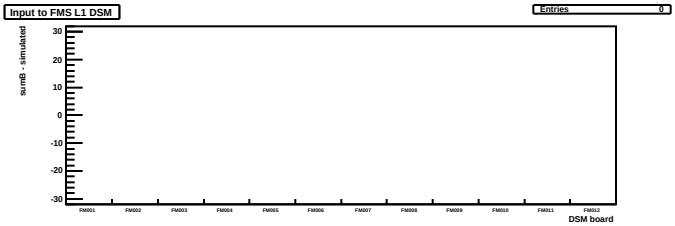

Input to FMS L1 DSM
Entries 465804
sumC
DSM board

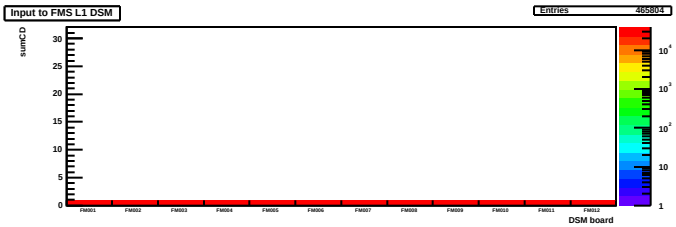

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

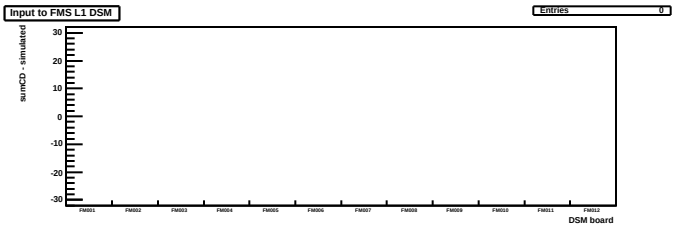

Input to FMS L1 DSM
Entries 465804
sumBC
DSM board

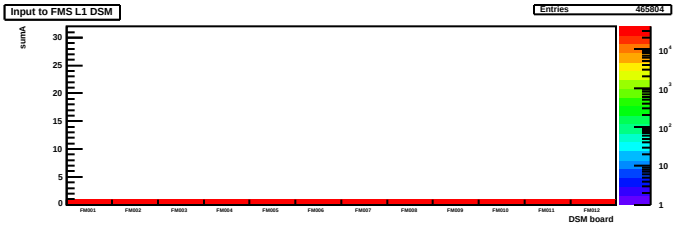

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

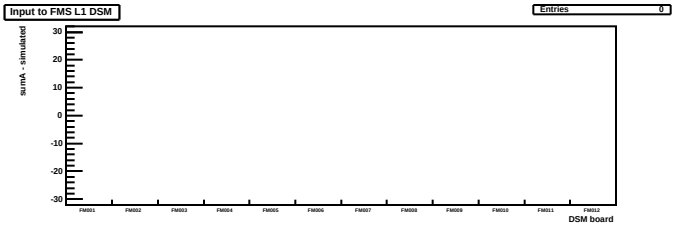

Input to FMS L1 DSM
Entries 465804
sumB
DSM board

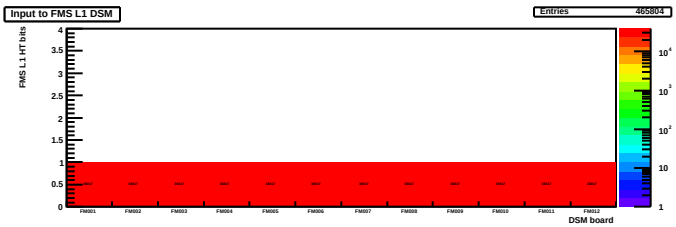

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

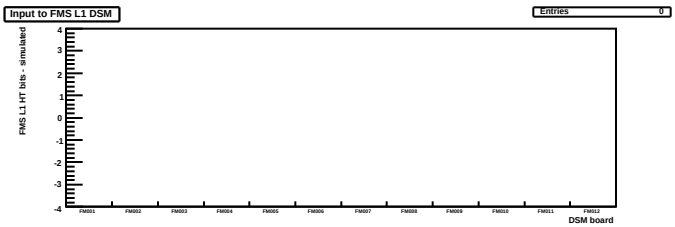

Input to FMS L1 DSM
Entries 465804
sumCD
DSM board

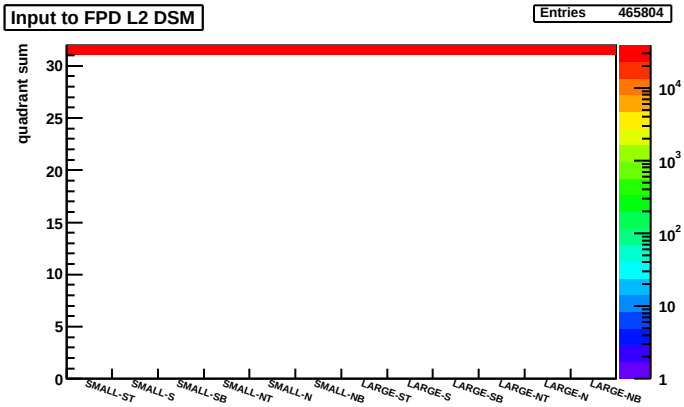

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

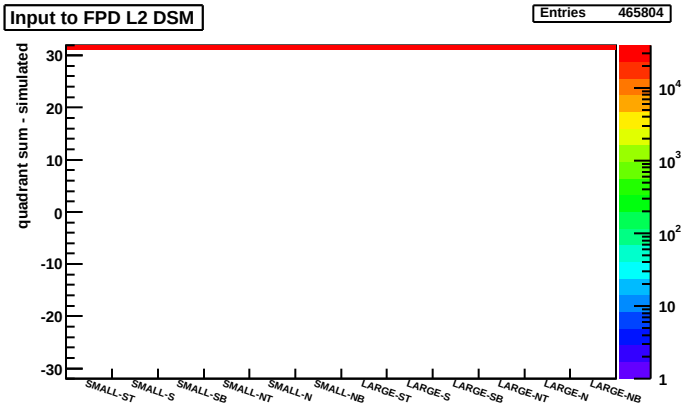

Input to FMS L1 DSM
Entries 465804
sumA
DSM board

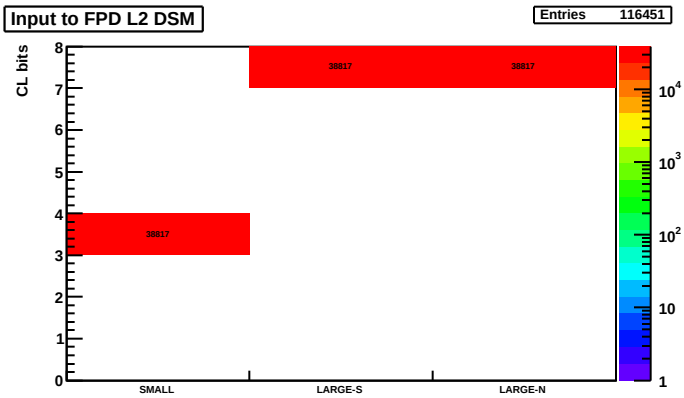

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

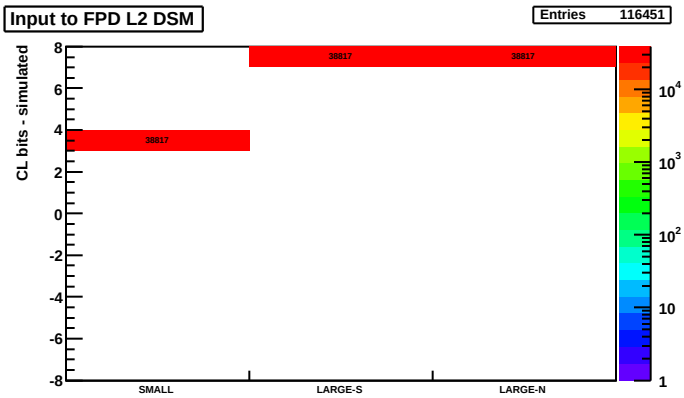

Input to FMS L1 DSM
Entries 465804
FMS L1 HT bits
DSM board

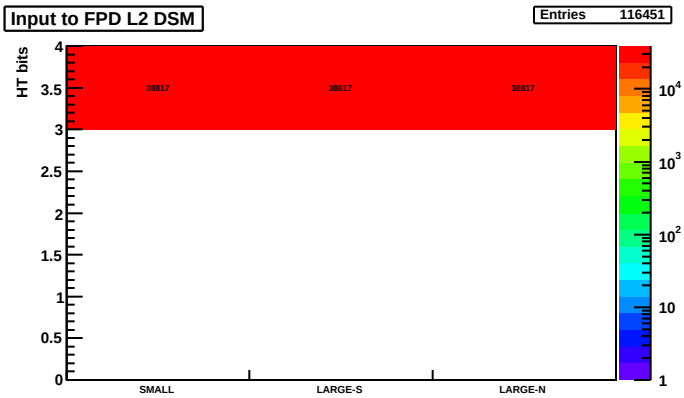

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

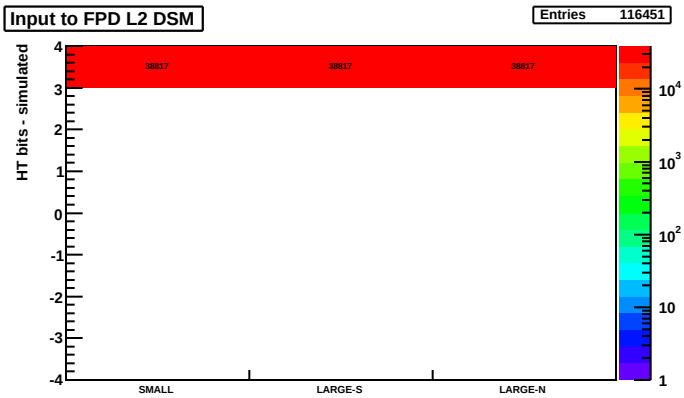

Input to FPD L2 DSM
Entries 465804
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

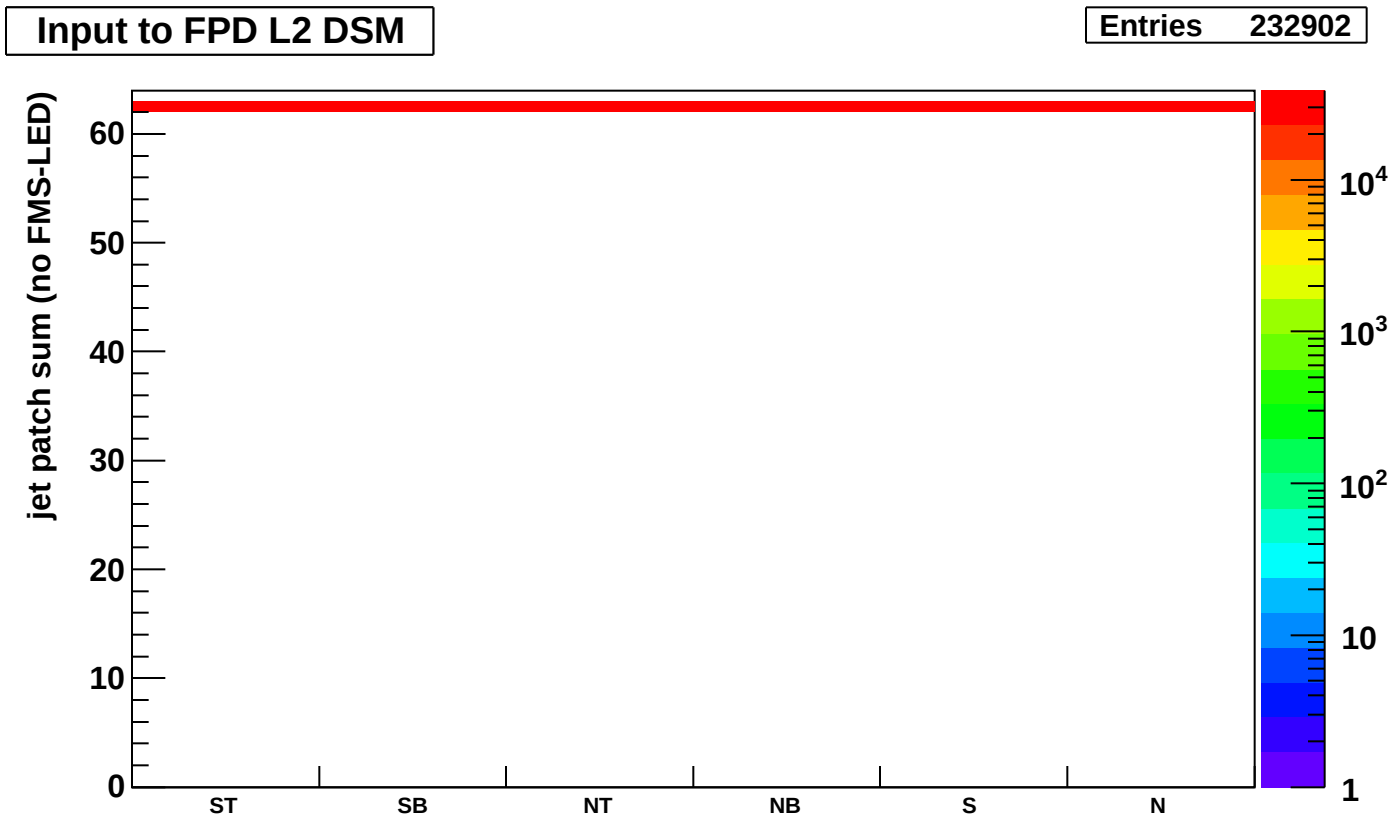

Input to FPD L2 DSM
Entries 465804
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

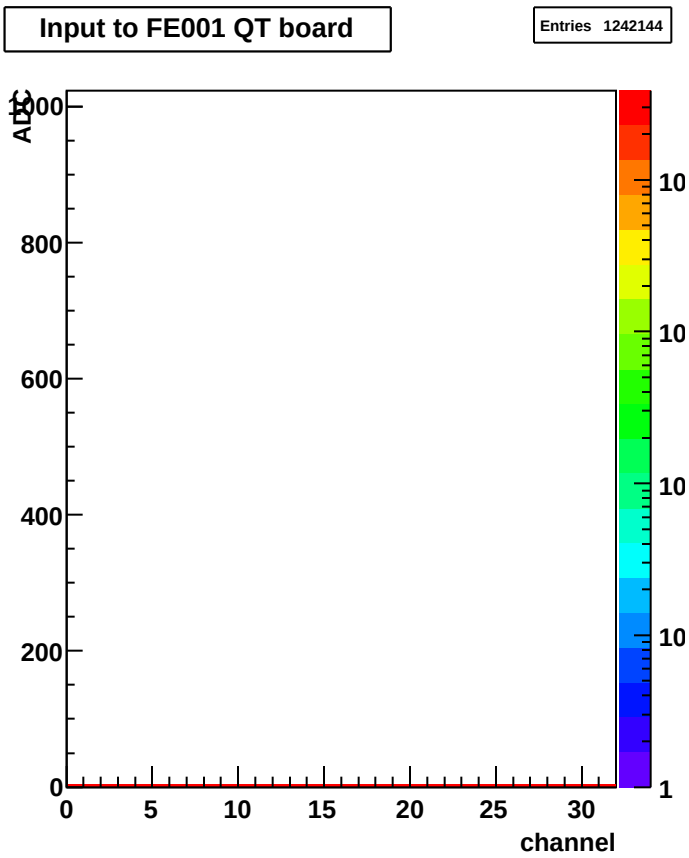

Input to FPD L2 DSM
Entries 116451
CL bits
38817
38817
38817
SMALL
LARGE-S
LARGE-N

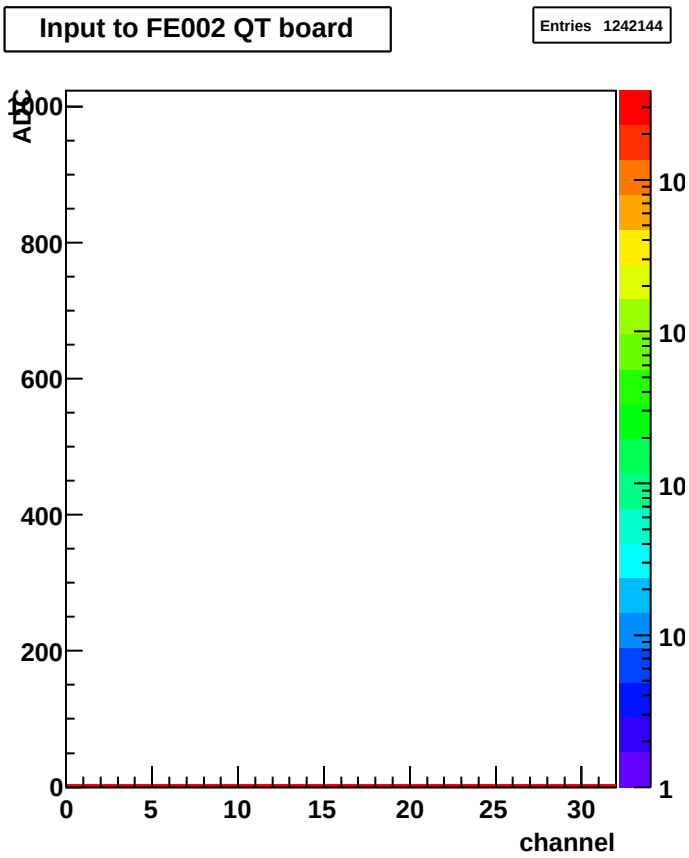

Input to FPD L2 DSM
Entries 116451
CL bits - simulated
38817
38817
38817
SMALL
LARGE-S
LARGE-N

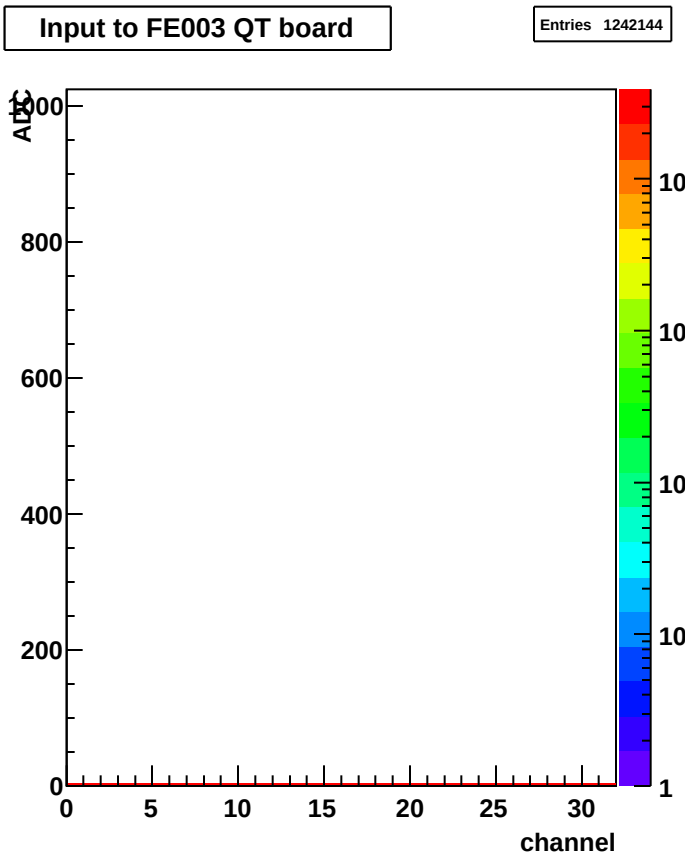

Input to FPD L2 DSM
Entries 116451
HT bits
38817
38817
38817
SMALL
LARGE-S
LARGE-N

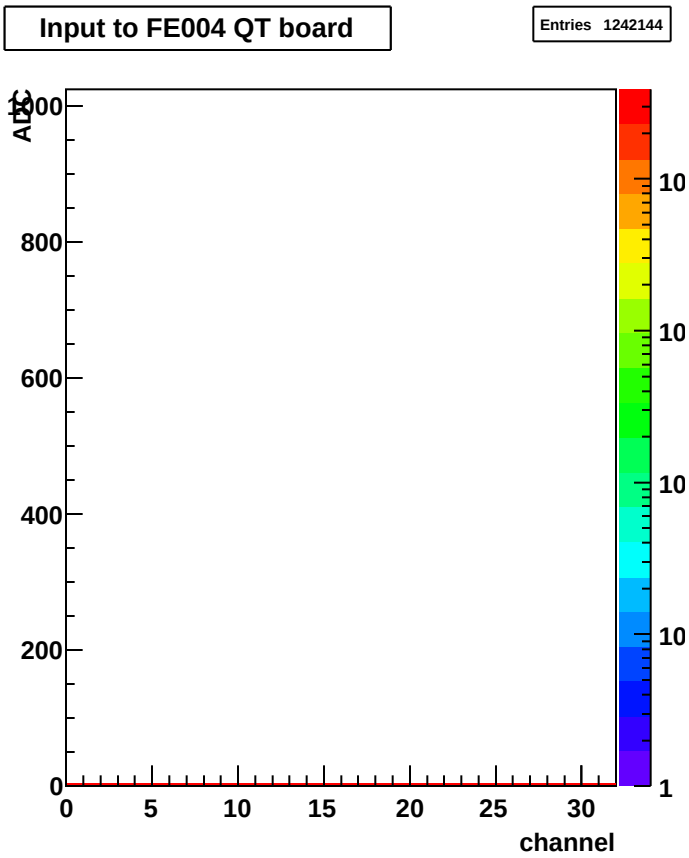

Input to FPD L2 DSM
Entries 116451
HT bits - simulated
38817
38817
38817
SMALL
LARGE-S
LARGE-N

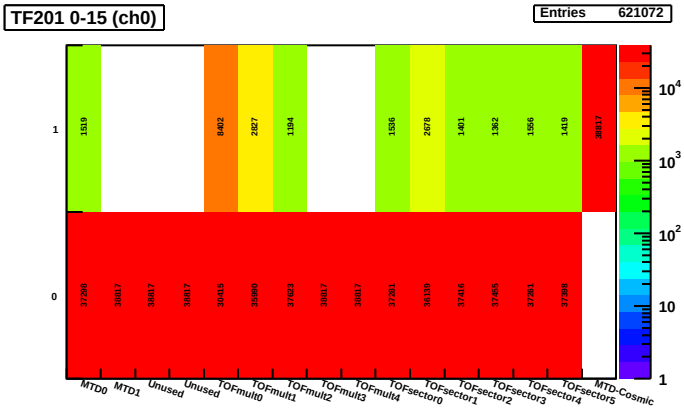

Input to FPD L2 DSM
Entries 232902
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
$10^2$
$10^3$
$10^4$

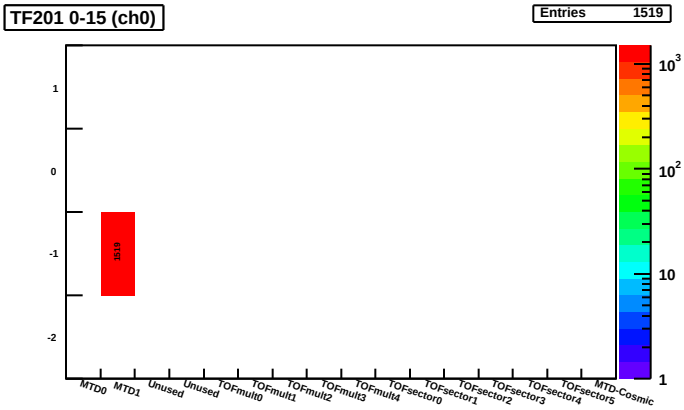

Input to FE001 QT board
Entries 1242144
ADC
channel

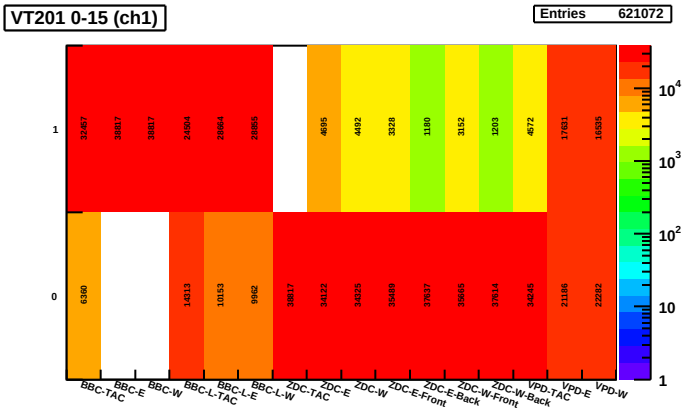

Input to FE002 QT board
Entries 1242144
ADC
channel

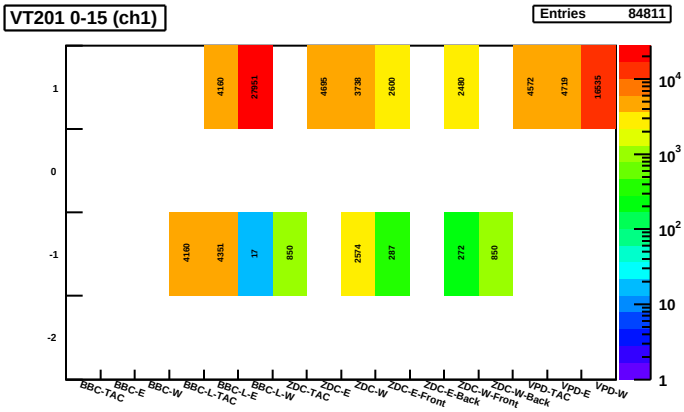

Input to FE003 QT board
Entries 1242144
ADC
channel

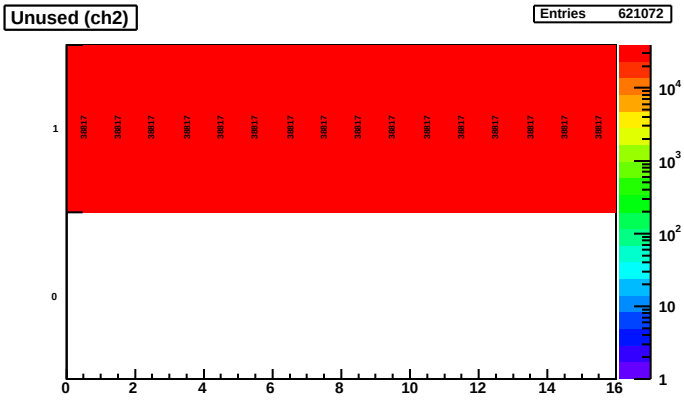

Input to FE004 QT board
Entries 1242144
ADC
channel

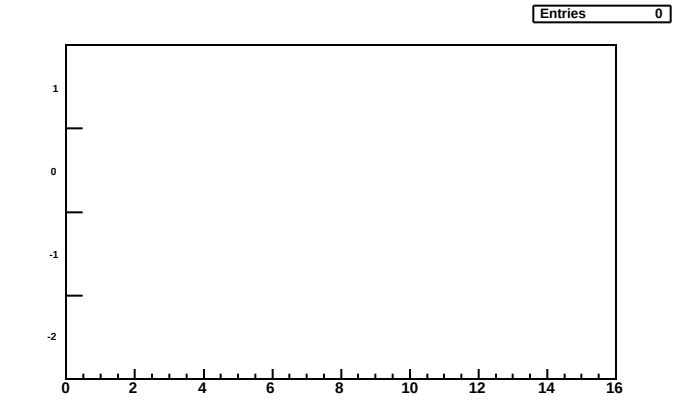

TF201 0-15 (ch0)
Entries 621072
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

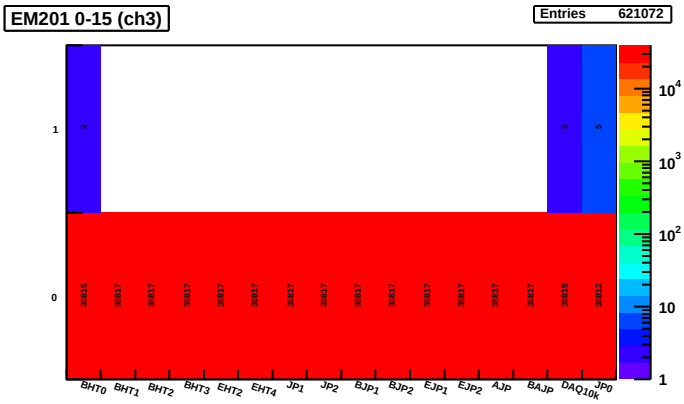

TF201 0-15 (ch0)
Entries 1519
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 621072
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 84811
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 621072


Entries 0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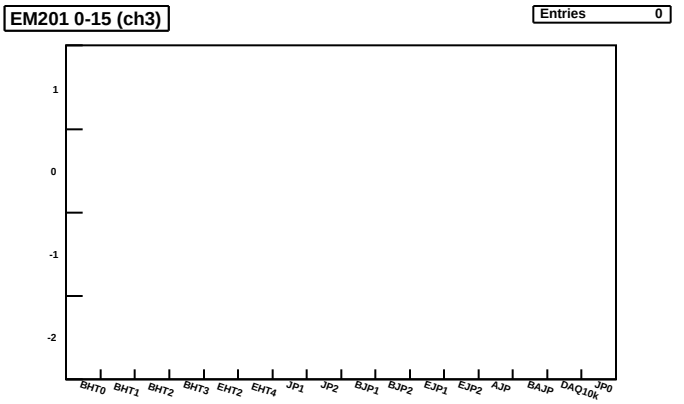
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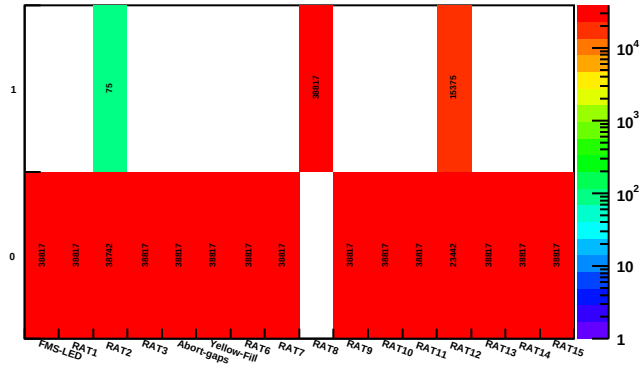
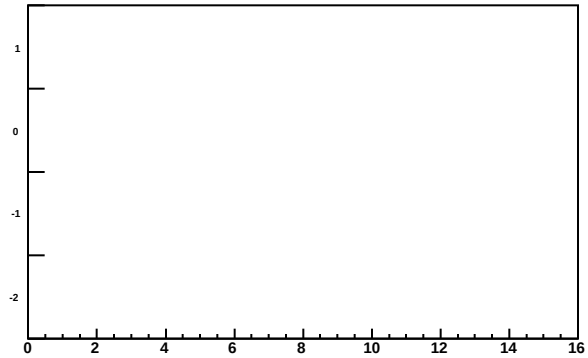
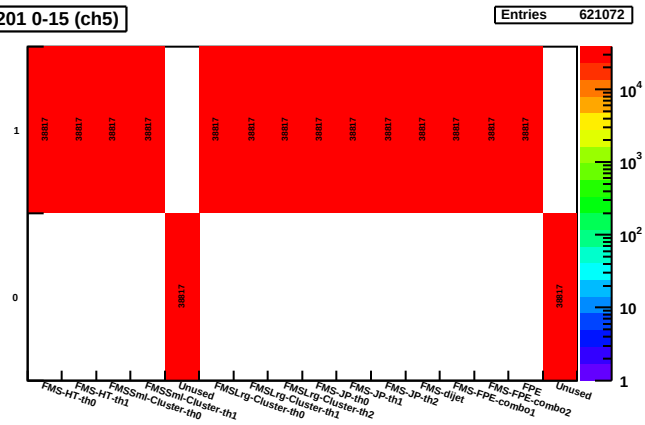
**RAT board (ch4)**

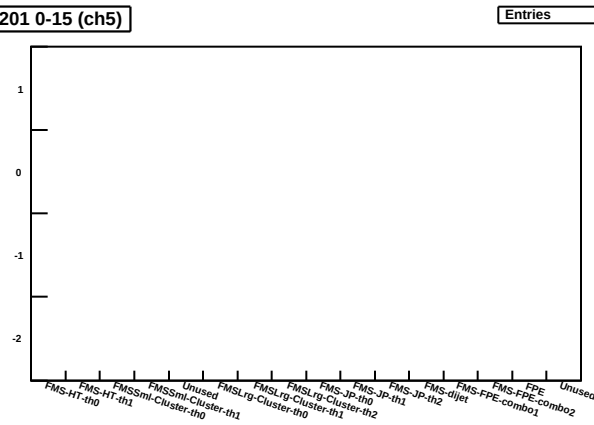


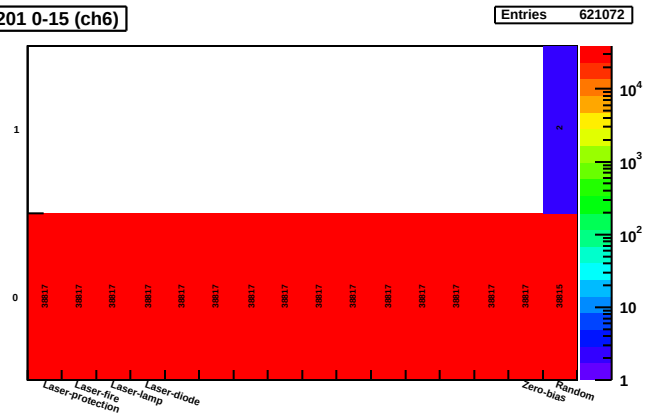

**FP201 0-15 (ch5)**

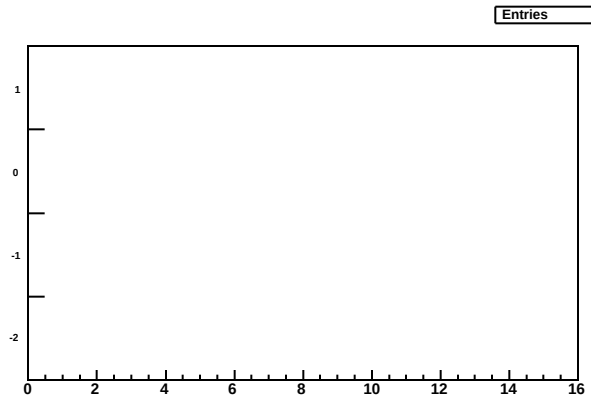


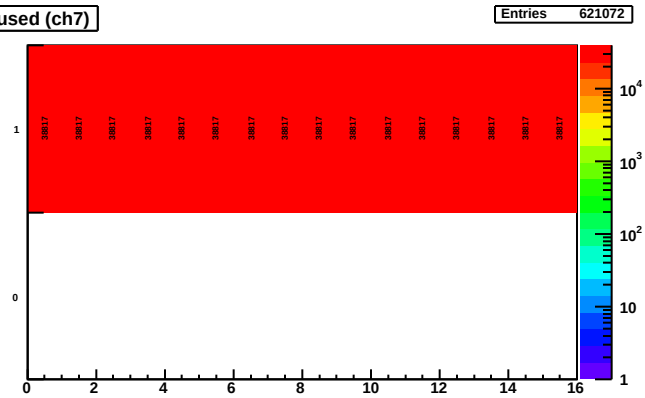
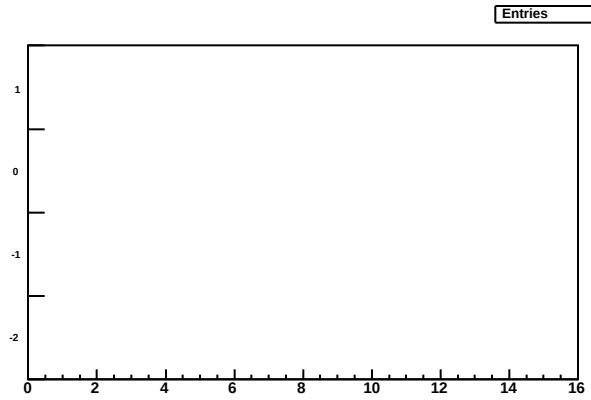

**FP201 0-15 (ch5)**




**ST201 0-15 (ch6)**




**Unused (ch7)**