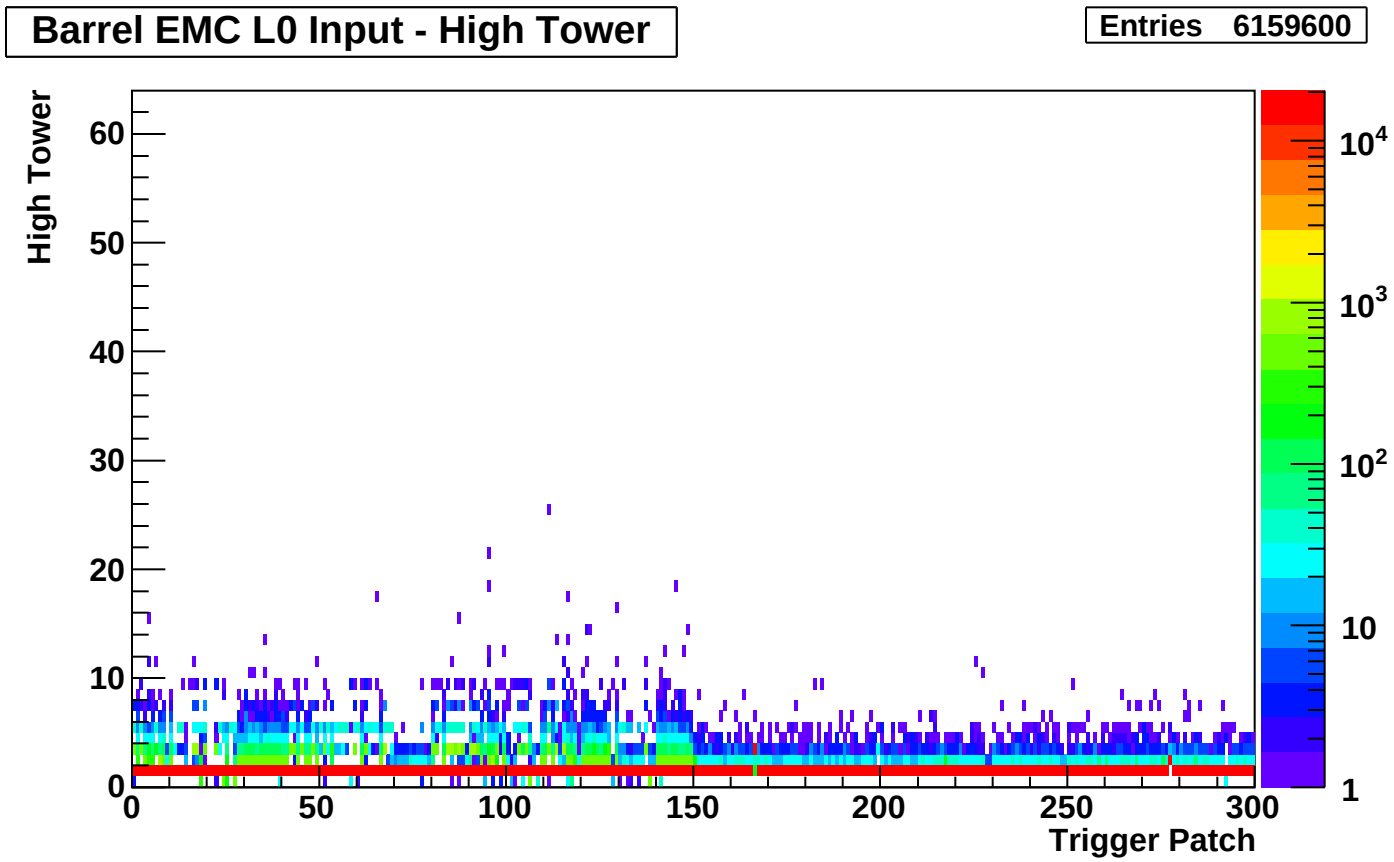
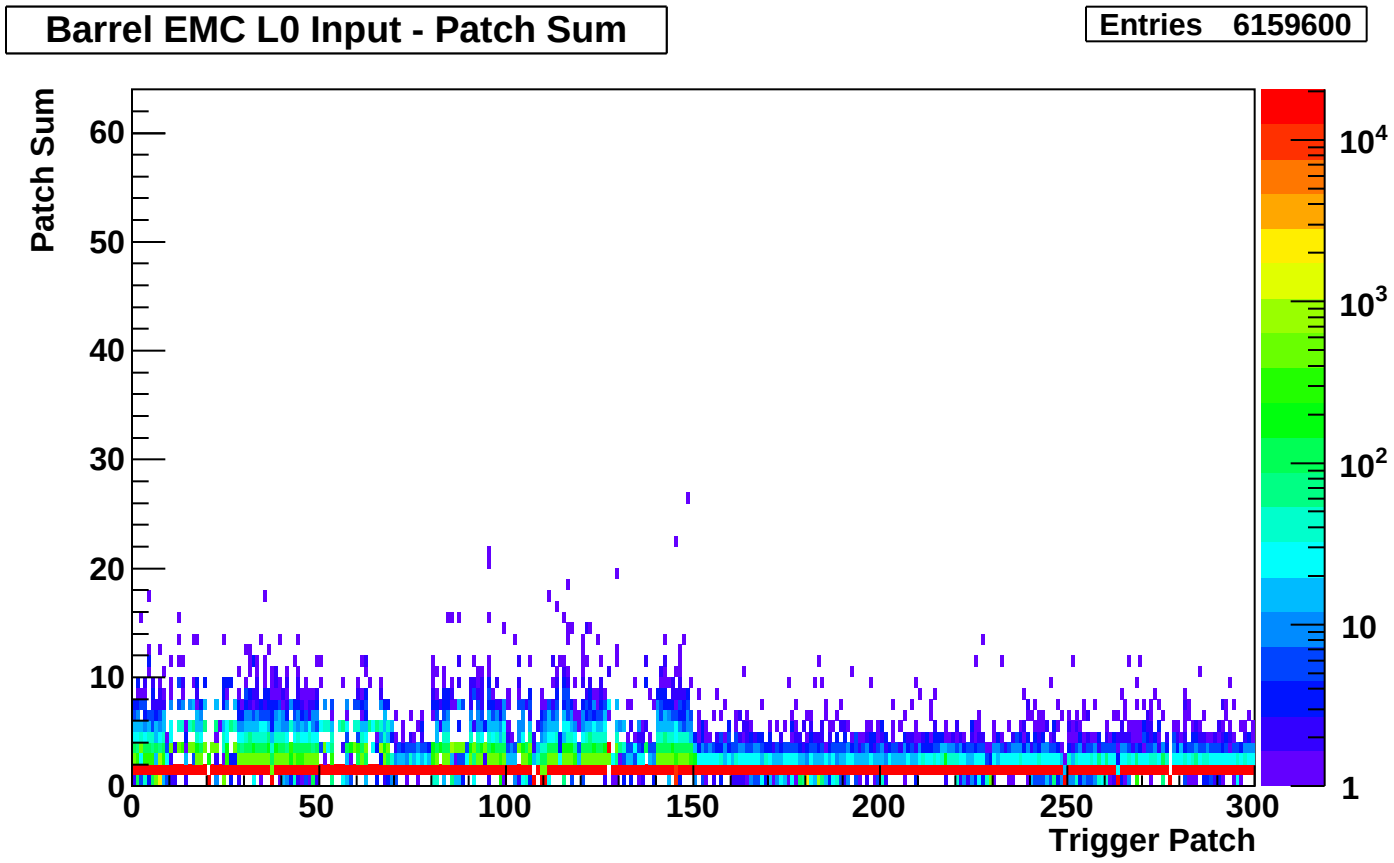
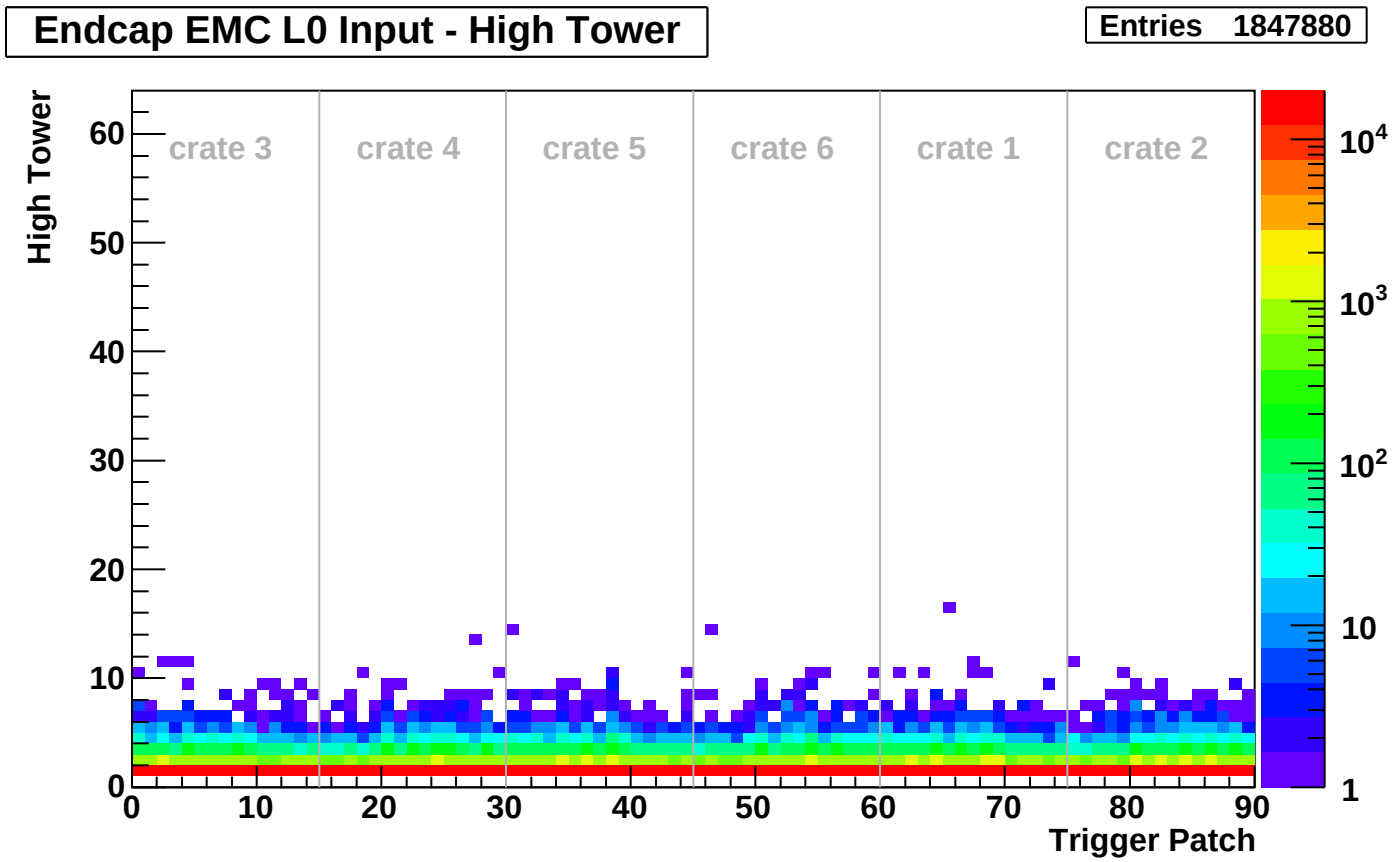
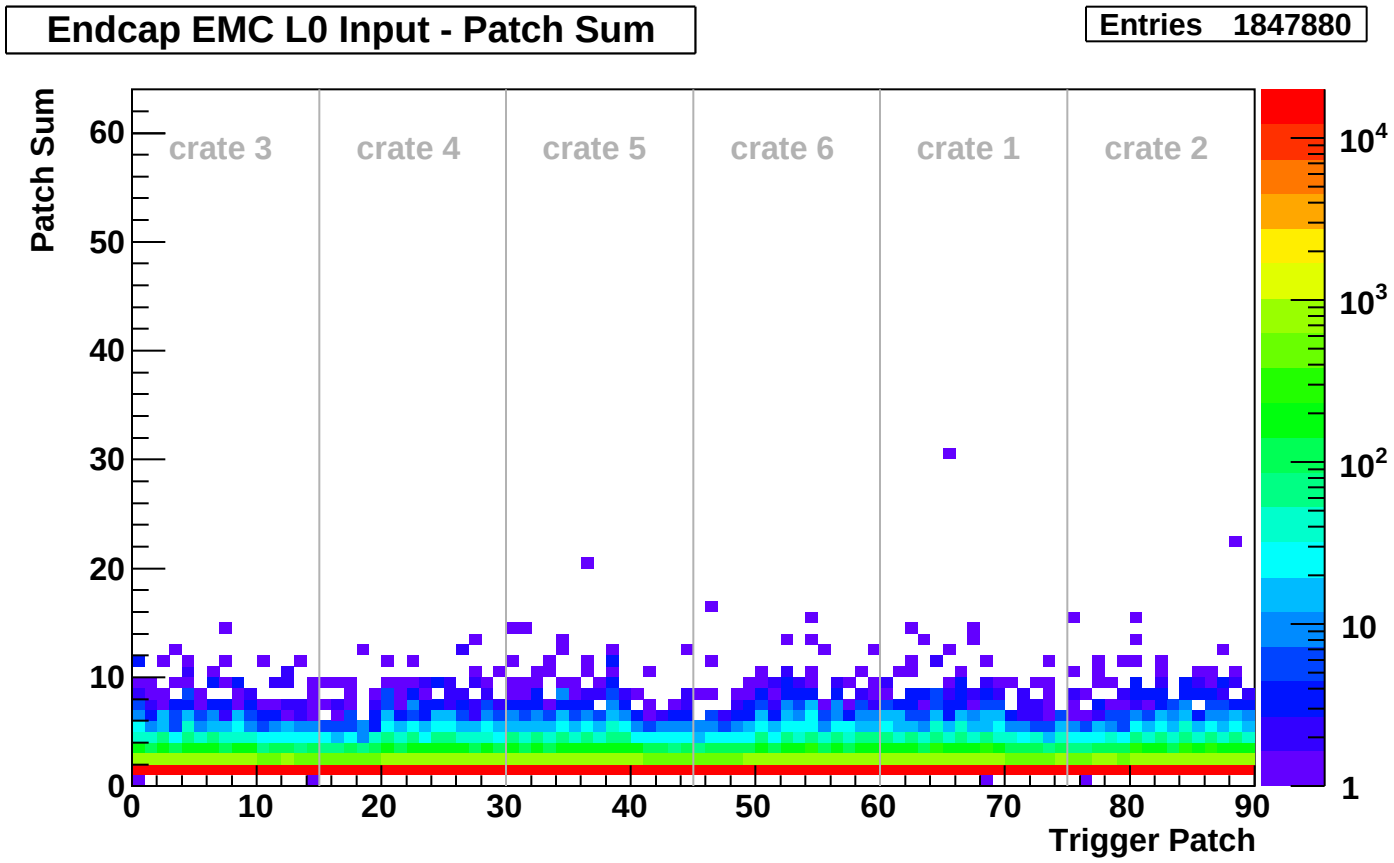
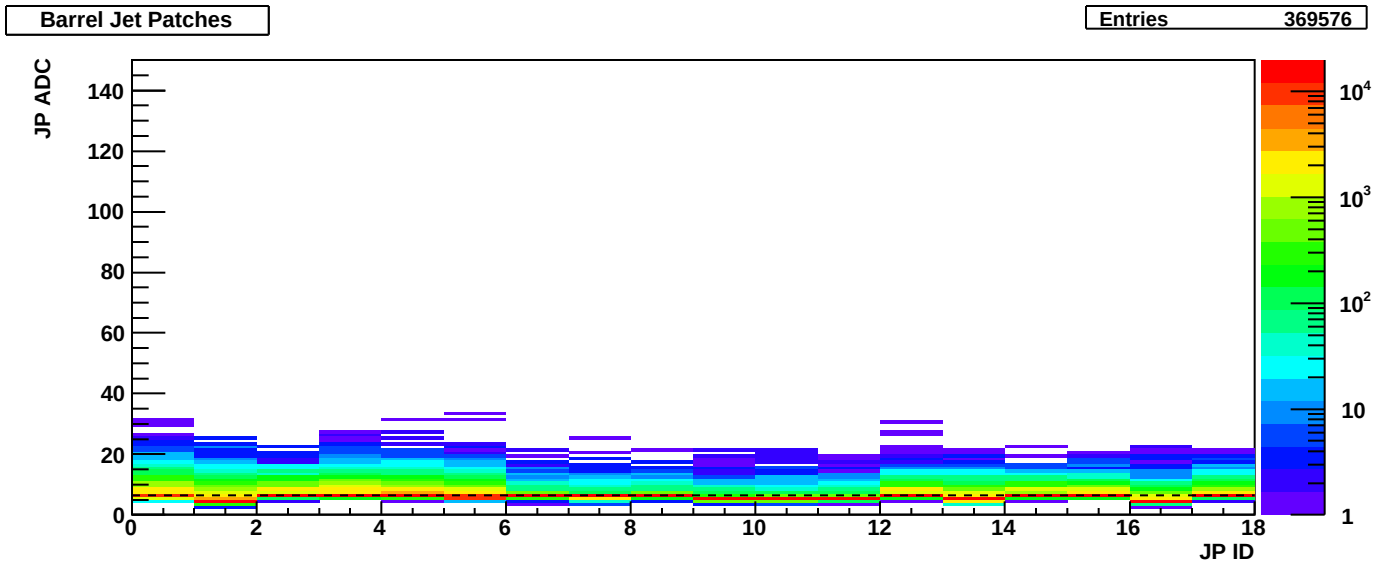
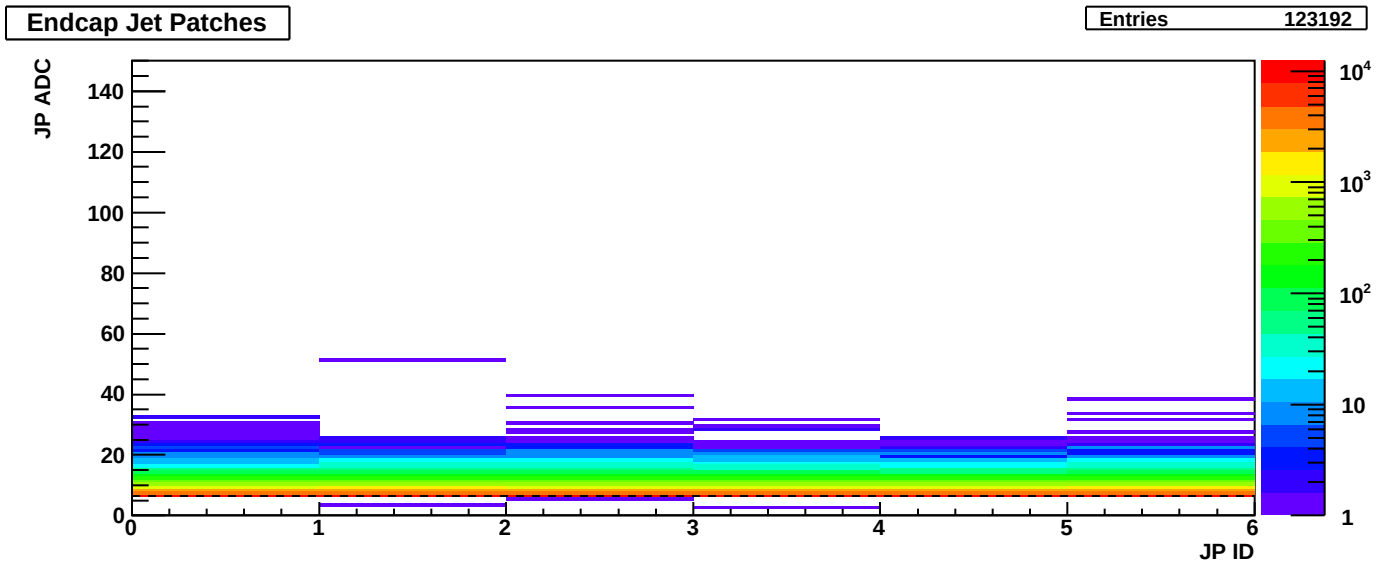

Barrel EMC L0 Input - High Tower
Entries 6159600
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

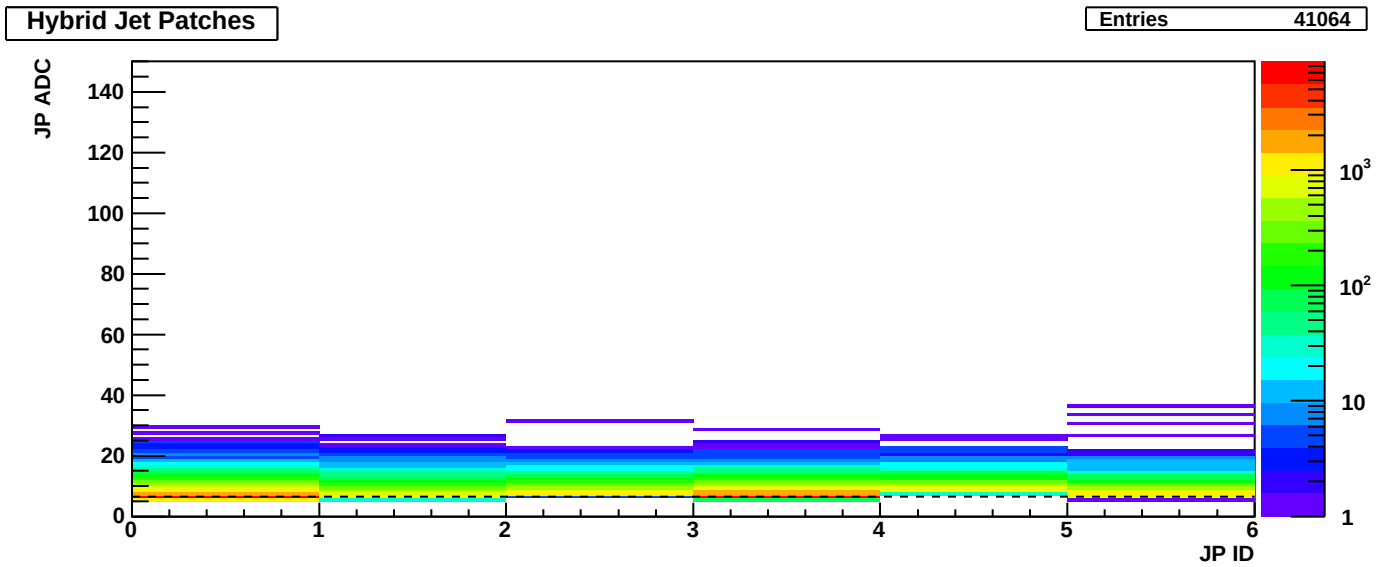

Barrel EMC L0 Input - Patch Sum
Entries 6159600
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

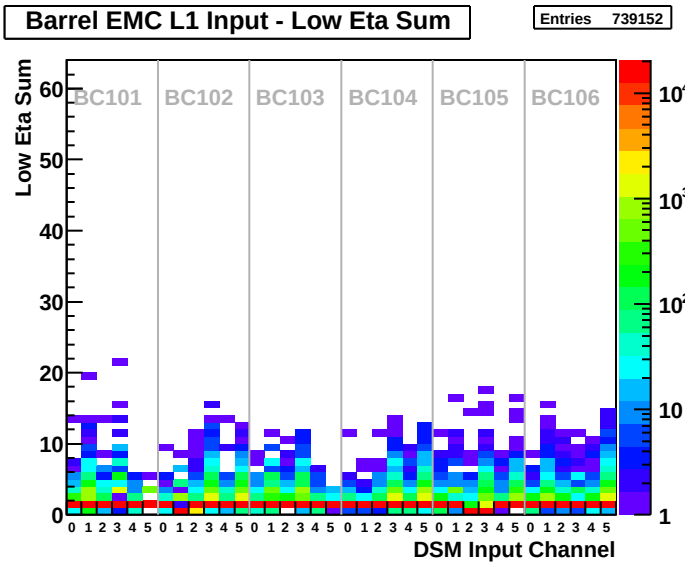

Endcap EMC L0 Input - High Tower
Entries 1847880
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

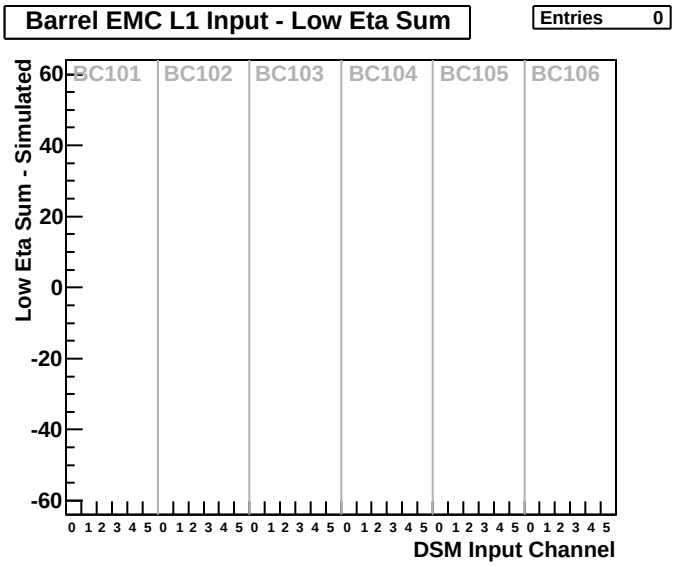

Endcap EMC L0 Input - Patch Sum
Entries 1847880
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

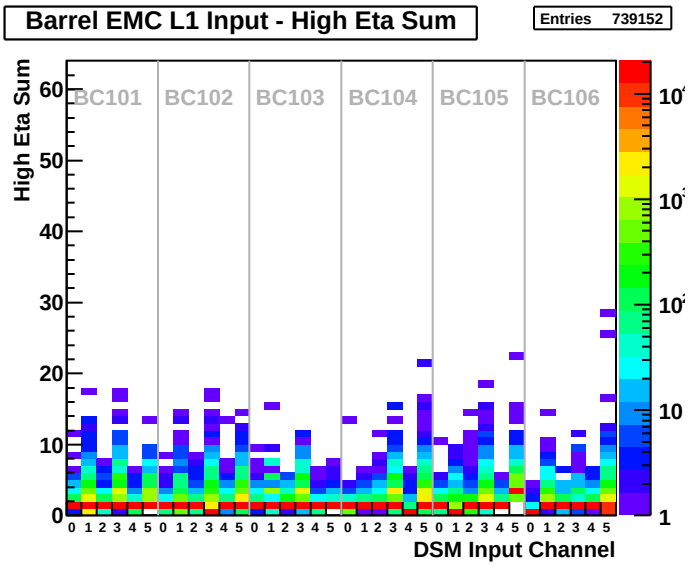

Barrel Jet Patches
Entries 369576
JP ADC
JP ID

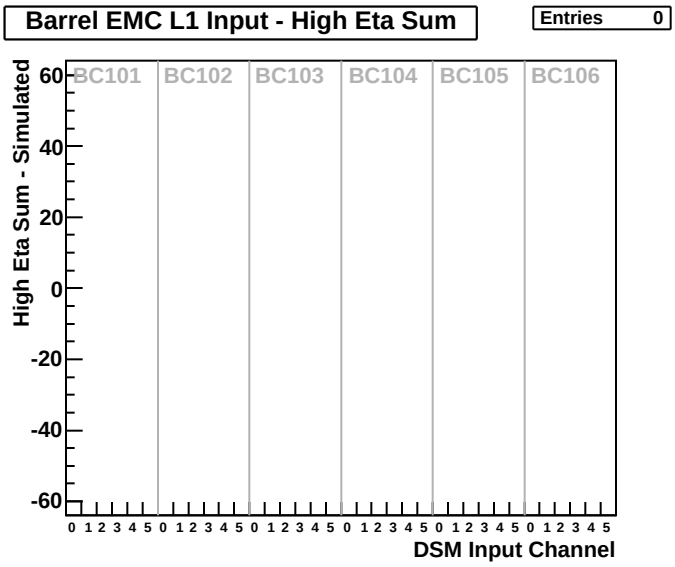

Endcap Jet Patches
Entries 123192
JP ADC
JP ID

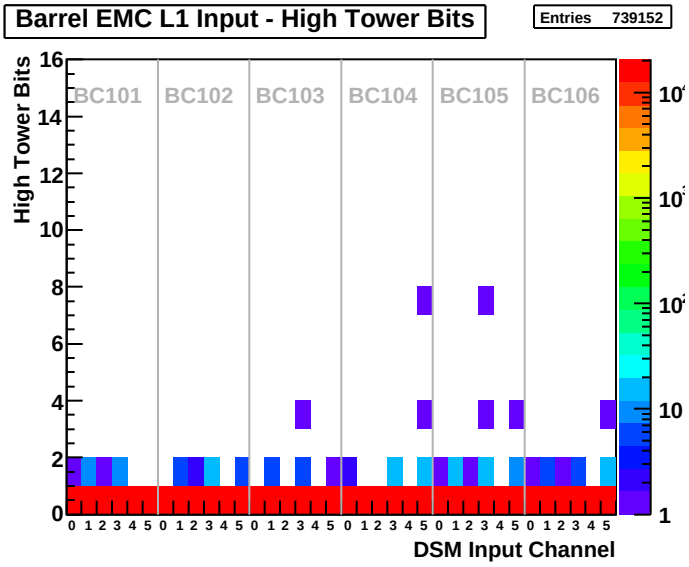

Hybrid Jet Patches
Entries 41064
JP ADC
JP ID

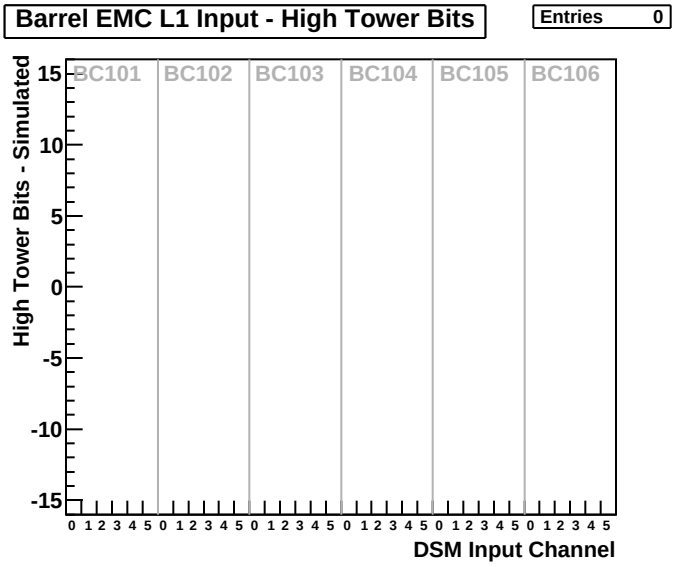

Barrel EMC L1 Input - Low Eta Sum
Entries 739152
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

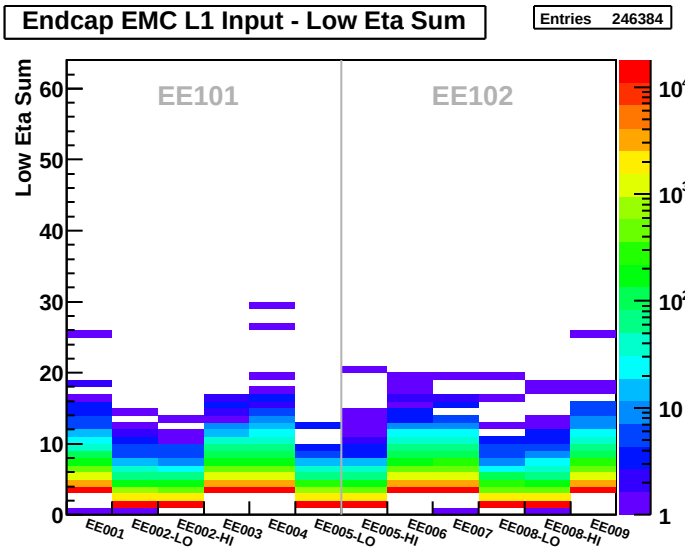

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

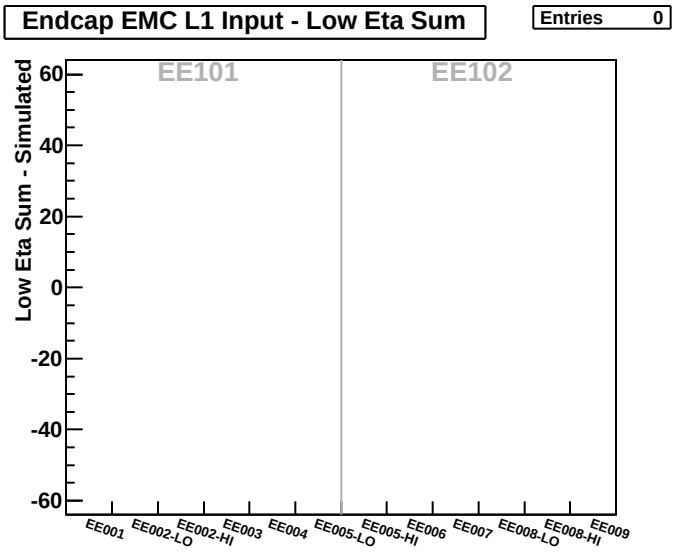

Barrel EMC L1 Input - High Eta Sum
Entries 739152
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

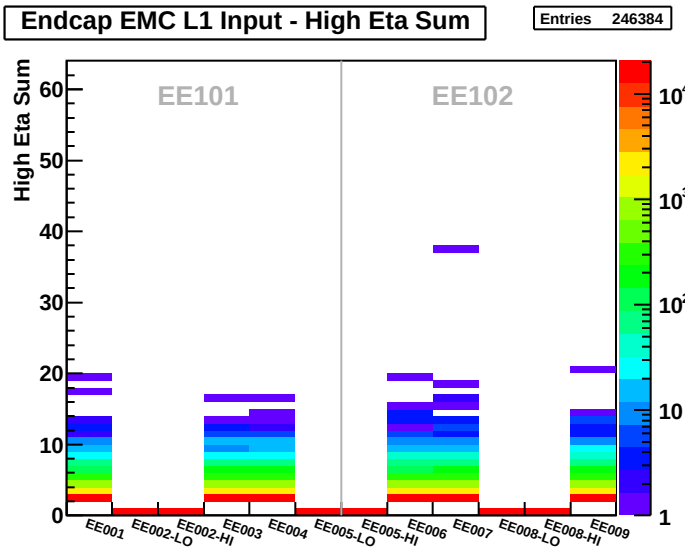

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

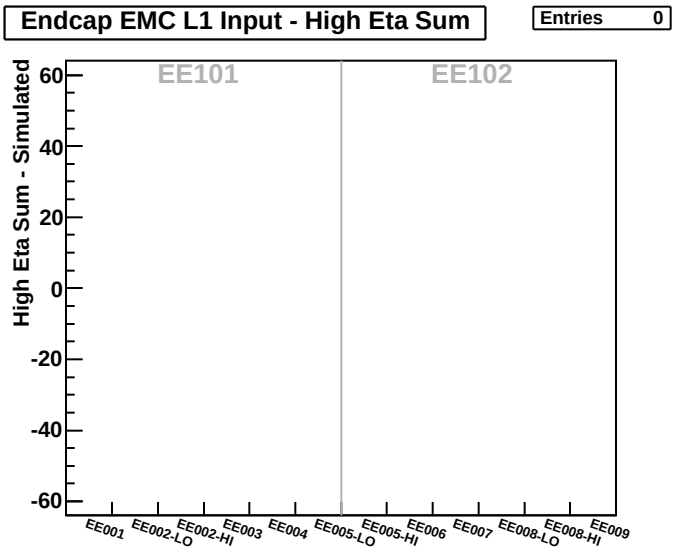

Barrel EMC L1 Input - High Tower Bits
Entries 739152
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

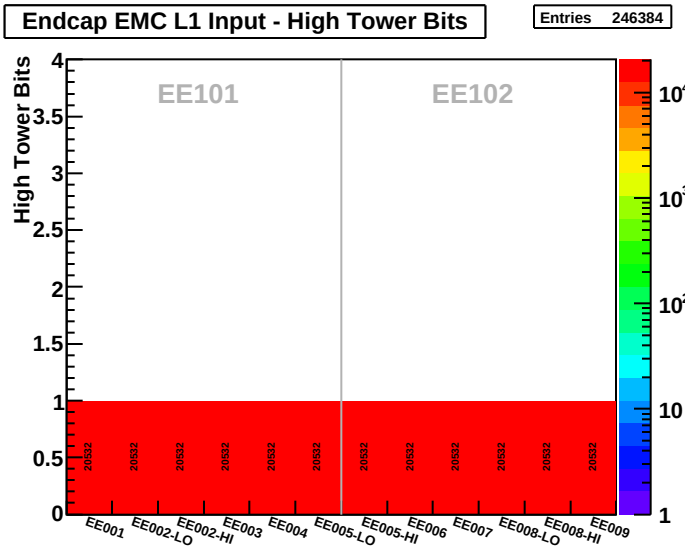

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

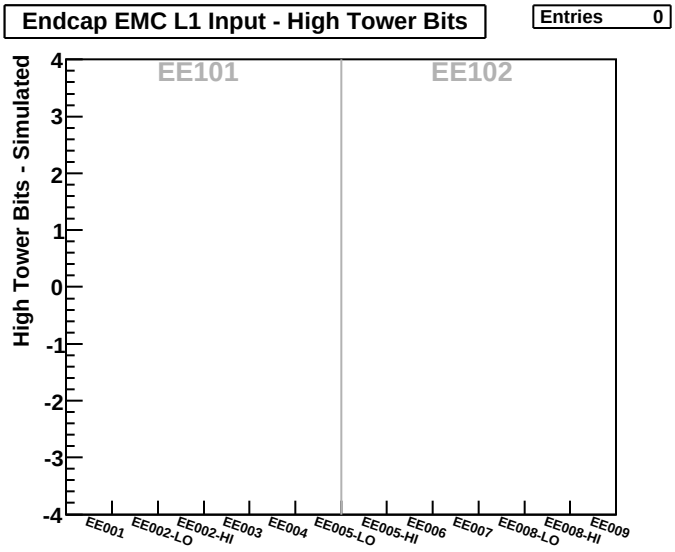

Endcap EMC L1 Input - Low Eta Sum
Entries 246384
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

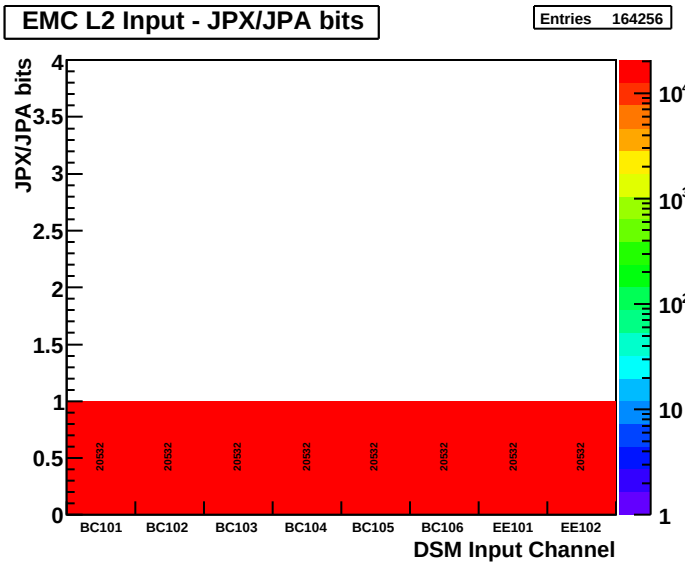

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

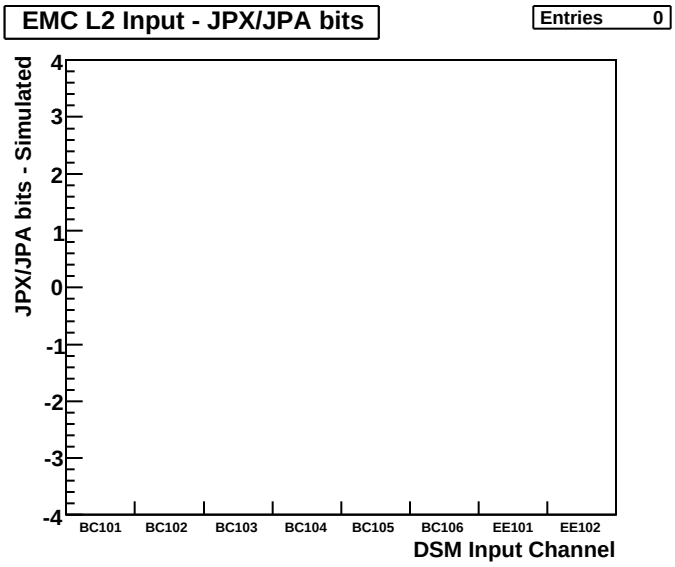

Endcap EMC L1 Input - High Eta Sum
Entries 246384
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

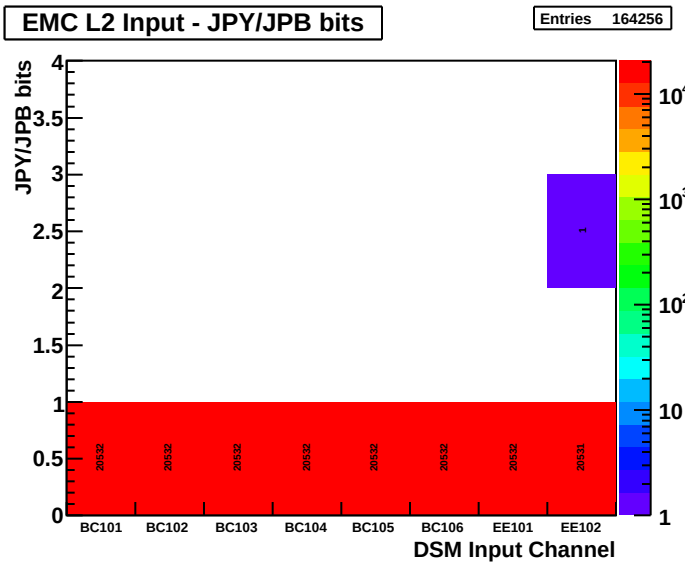

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

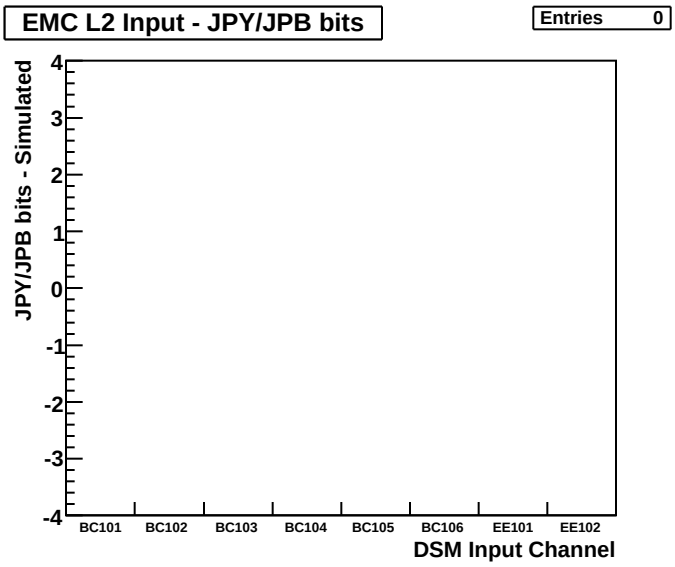

Endcap EMC L1 Input - High Tower Bits
Entries 246384
High Tower Bits
EE101
EE102
20532
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

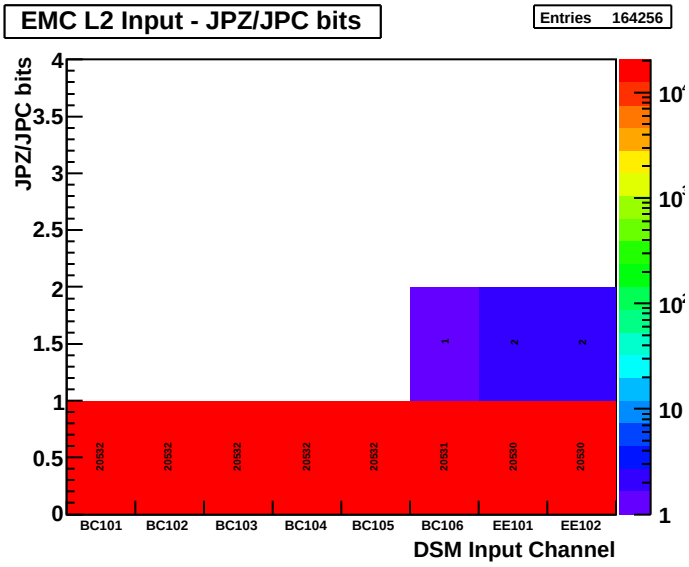

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

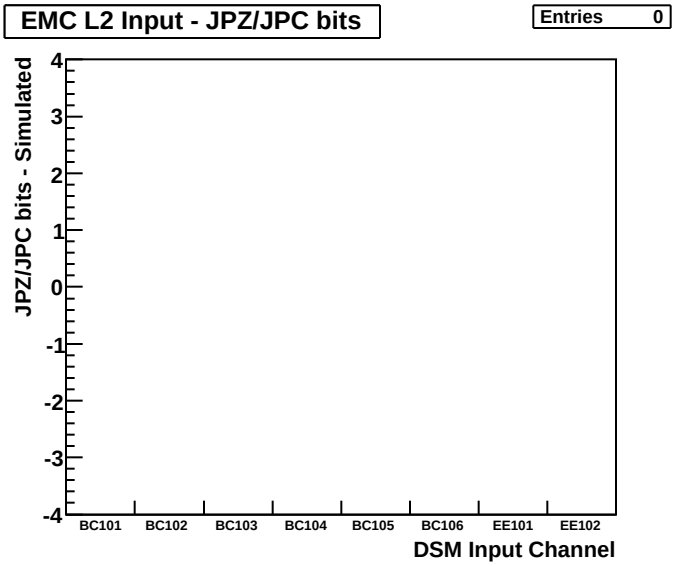

EMC L2 Input - JPX/JPA bits
Entries 164256
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
20532 20532 20532 20532 20532 20532 20532 20532

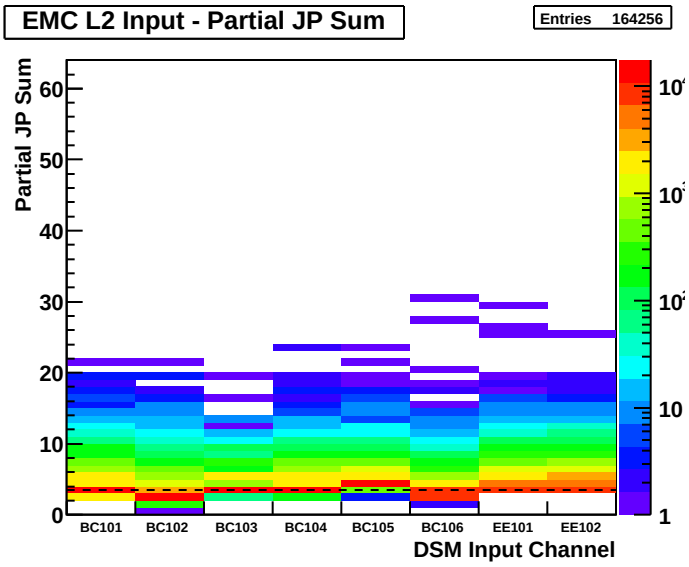

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

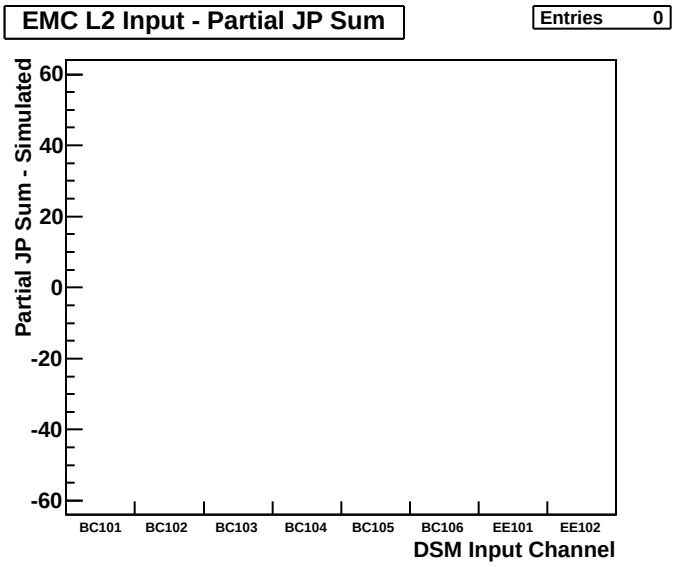

EMC L2 Input - JPY/JPB bits
Entries 164256
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
20532 20532 20532 20532 20532 20532 20532 20531
1

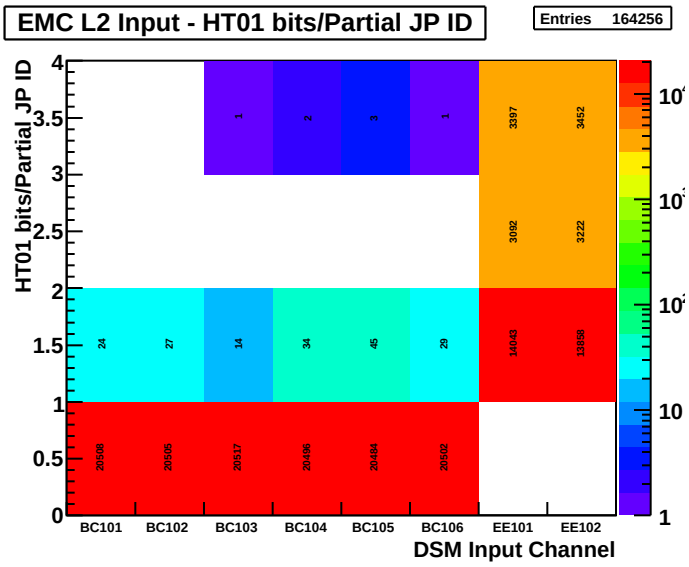

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

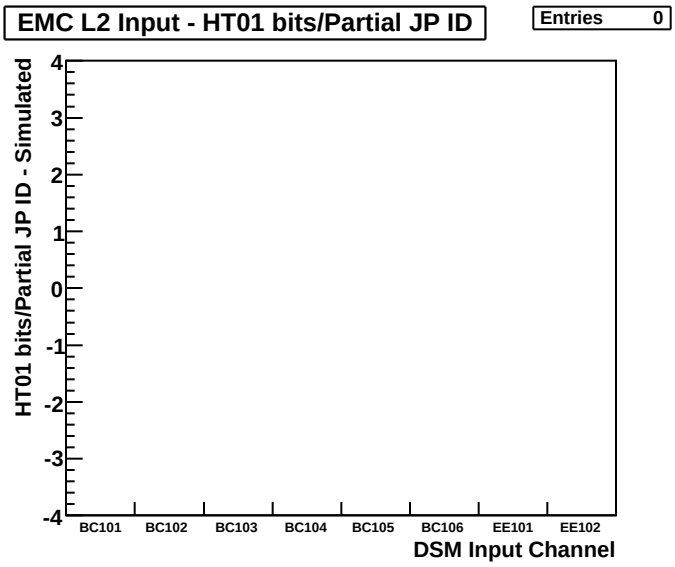

EMC L2 Input - JPZ/JPC bits
Entries 164256
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
20532 20532 20532 20532 20532 20531 20530 20530
1 2 2

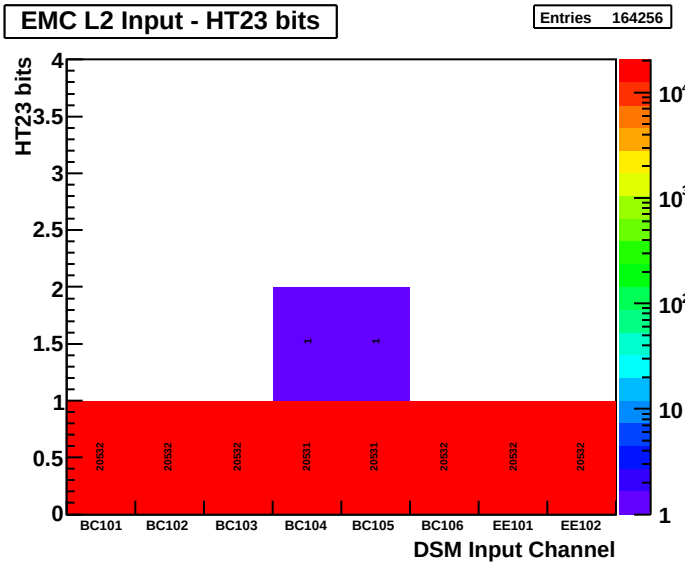

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

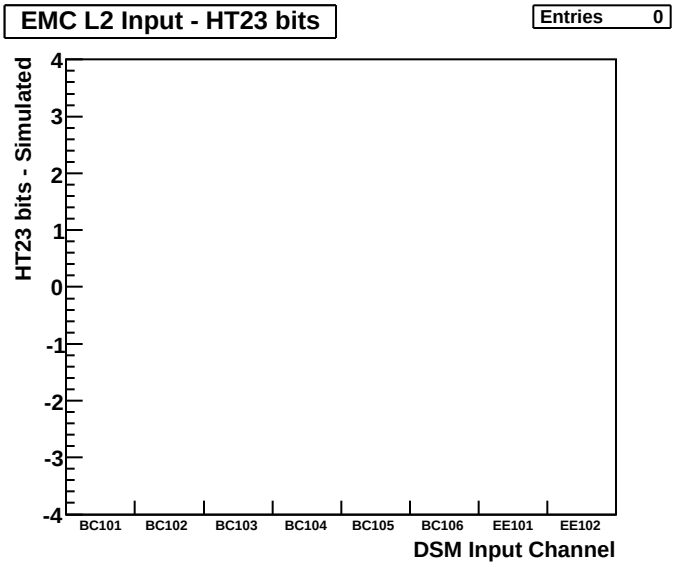

EMC L2 Input - Partial JP Sum
Entries 164256
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

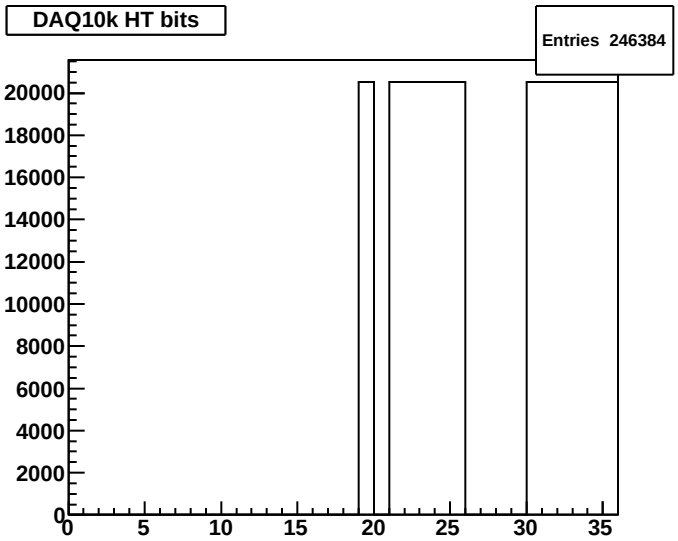

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

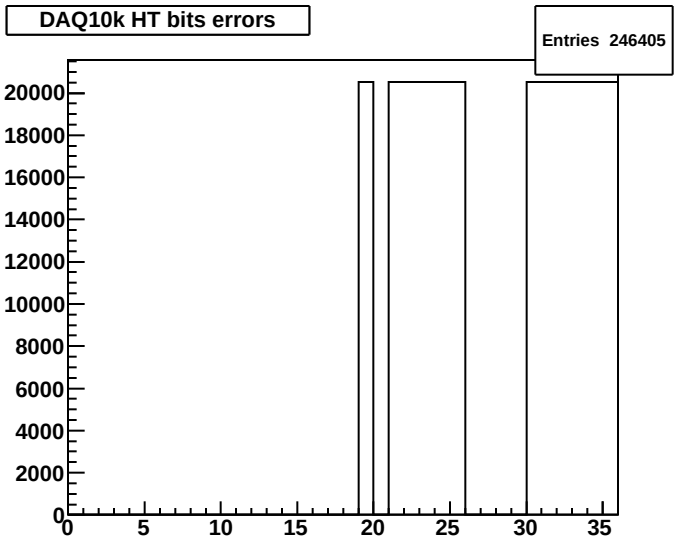

EMC L2 Input - HT01 bits/Partial JP ID
Entries 164256
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

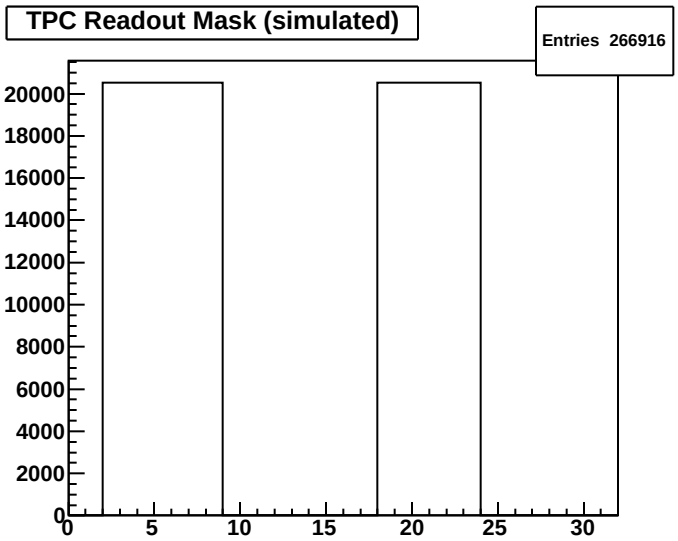

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

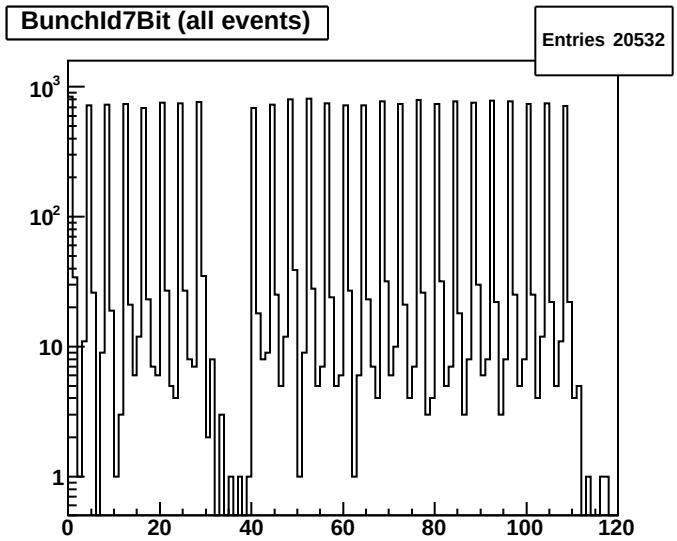

EMC L2 Input - HT23 bits
Entries 164256
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

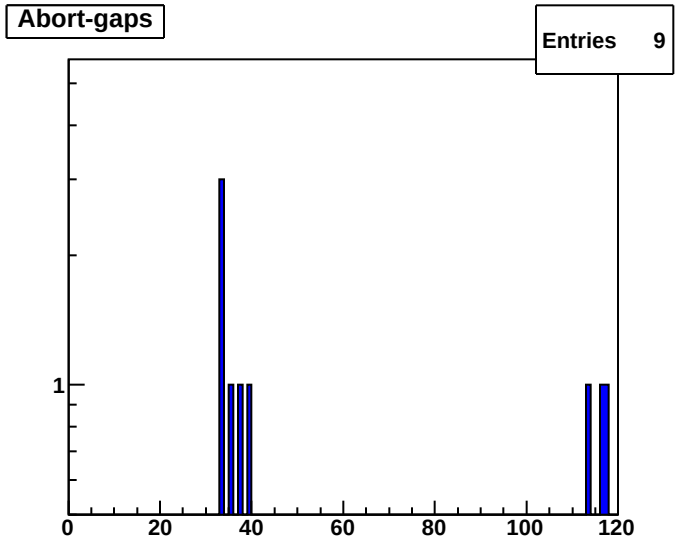

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

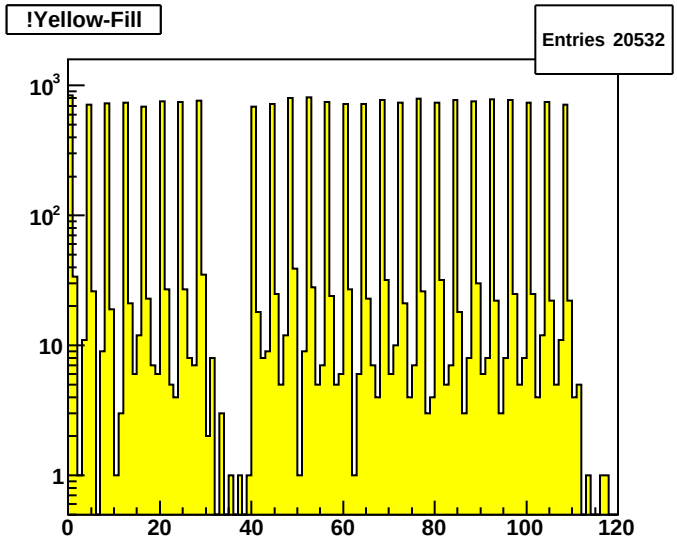

DAQ10k HT bits
Entries 246384

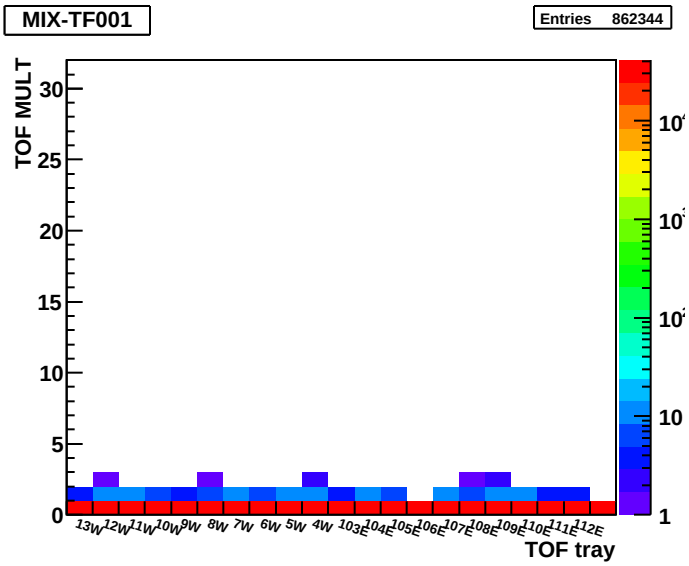

DAQ10k HT bits errors
Entries 246405

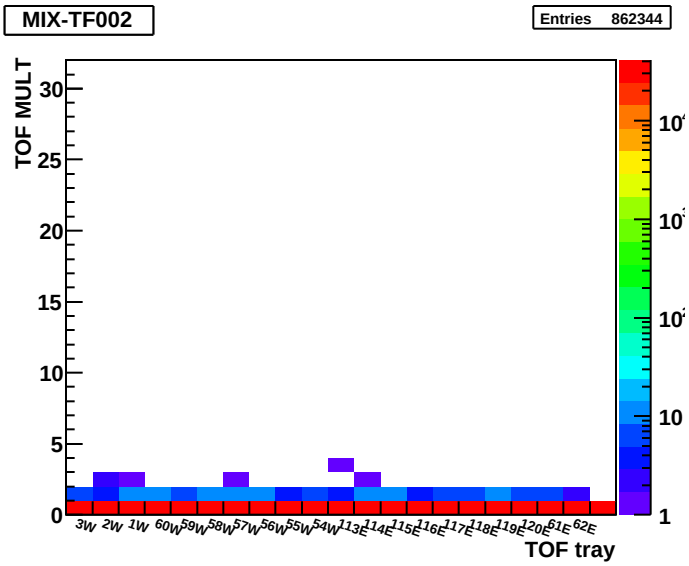

TPC Readout Mask (simulated)
Entries 266916

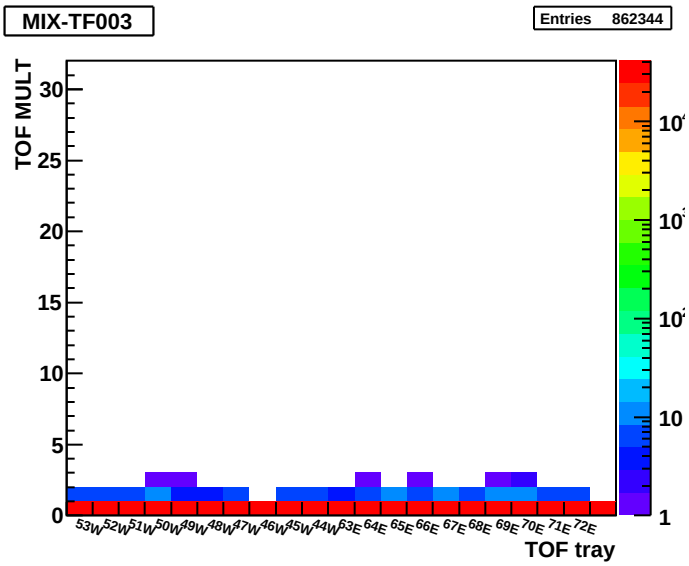

BunchId7Bit (all events)
Entries 20532

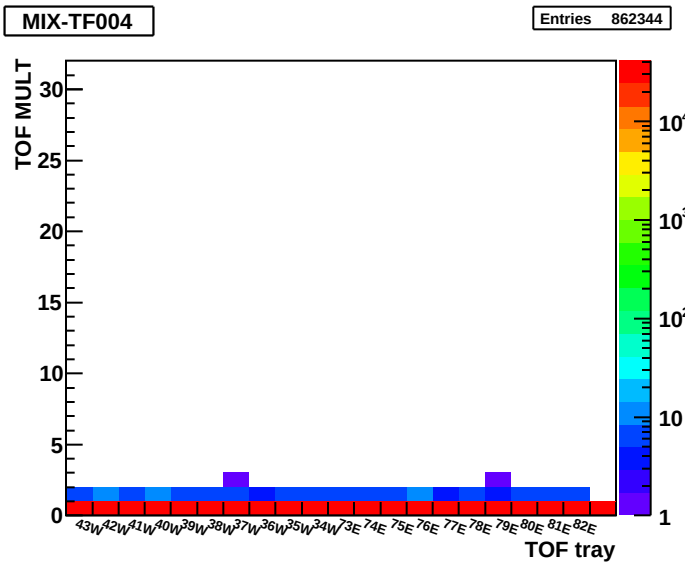

Abort-gaps
Entries 9

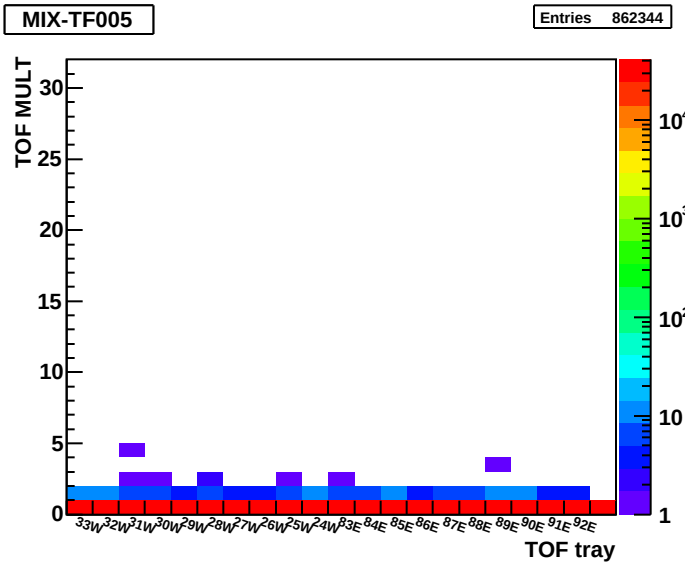

!Yellow-Fill
Entries 20532

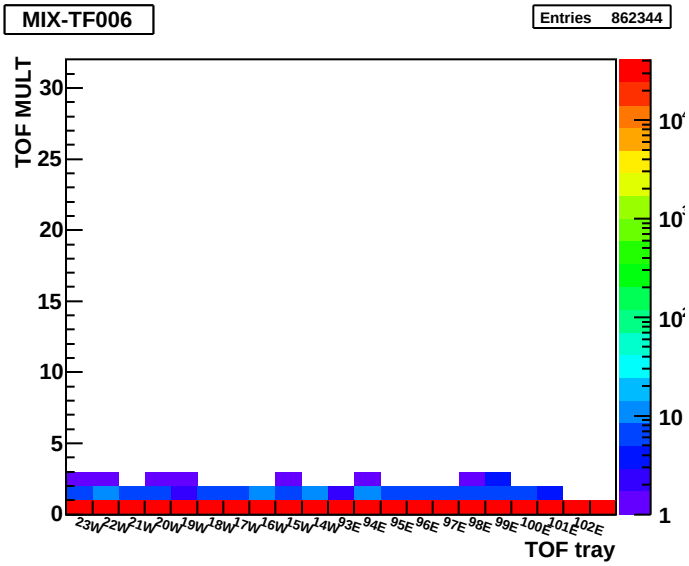

MIX-TF001
Entries 862344
TOF MULT
TOF tray

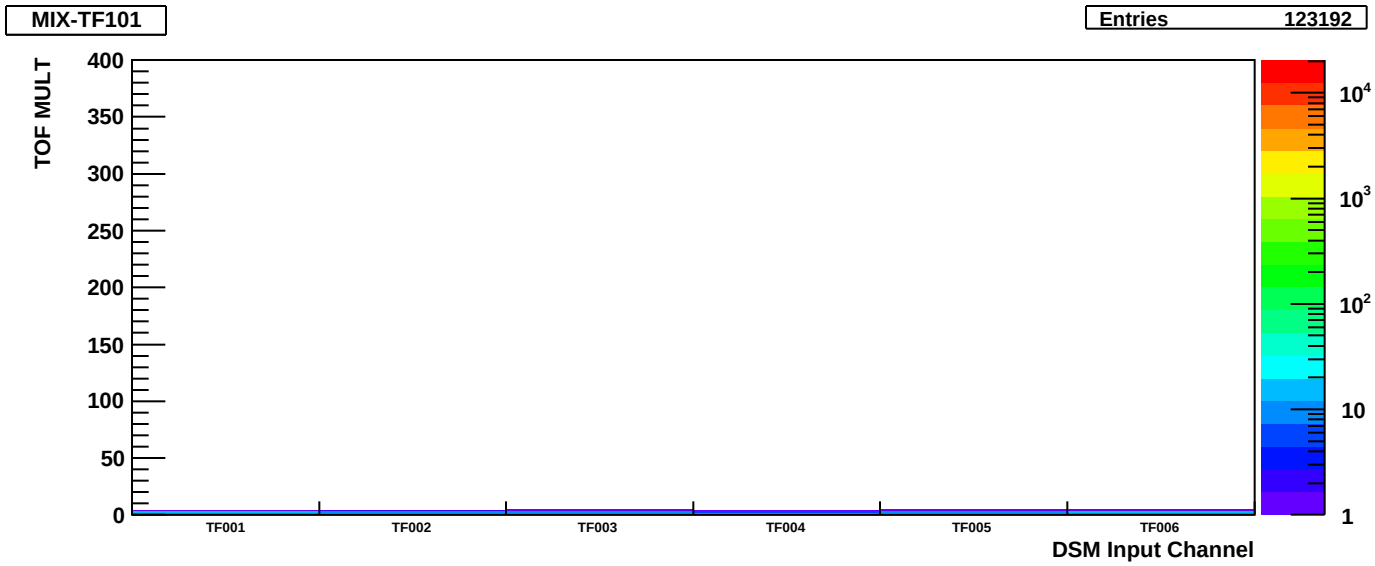

MIX-TF002
Entries 862344
TOF MULT
TOF tray

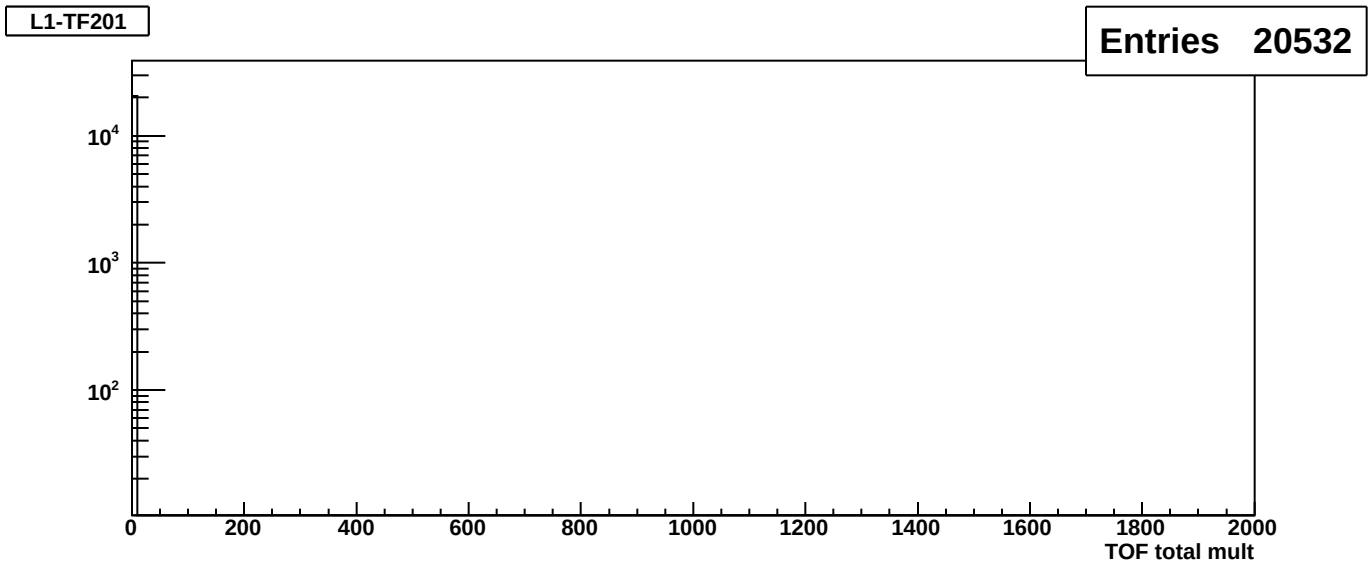

MIX-TF003
Entries 862344
TOF MULT
TOF tray

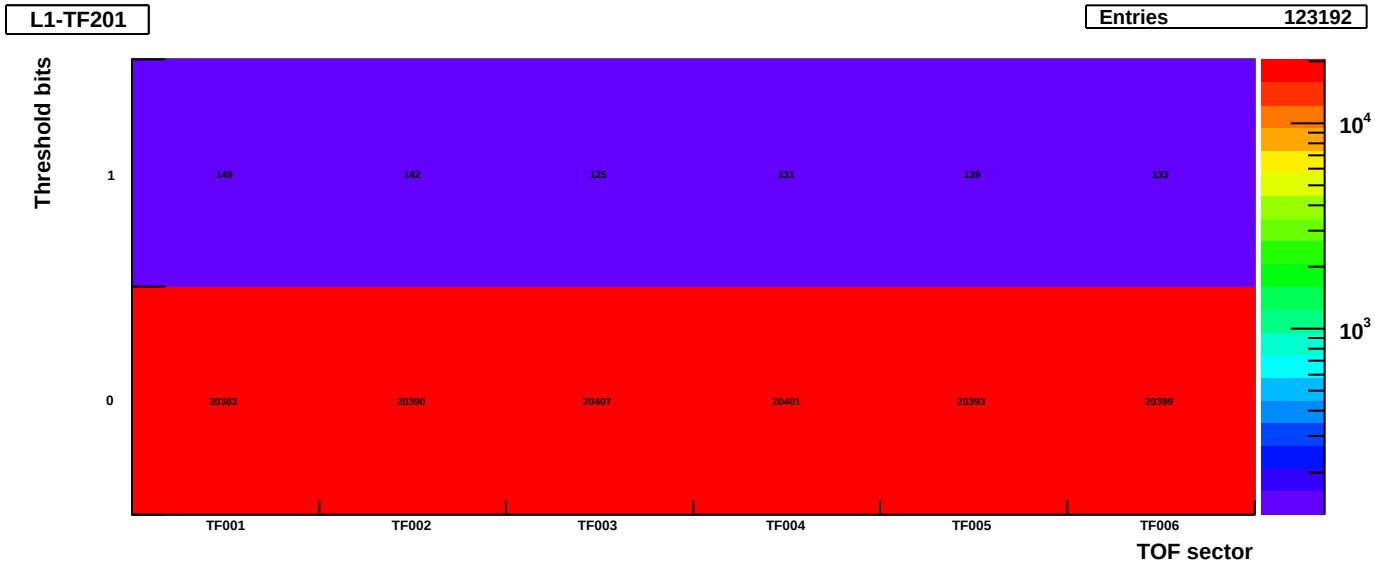

MIX-TF004
Entries 862344
TOF MULT
TOF tray

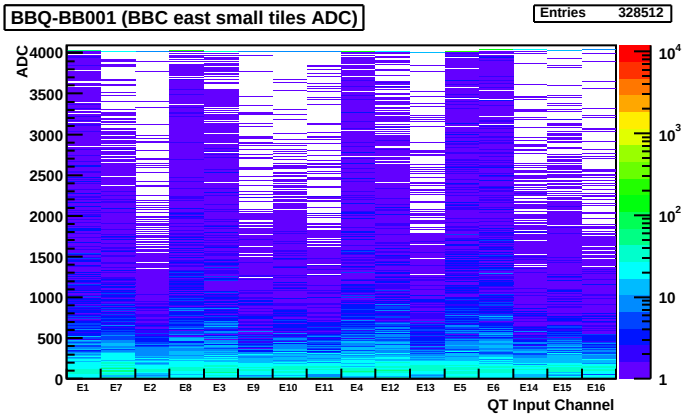

MIX-TF005
Entries 862344
TOF MULT
TOF tray

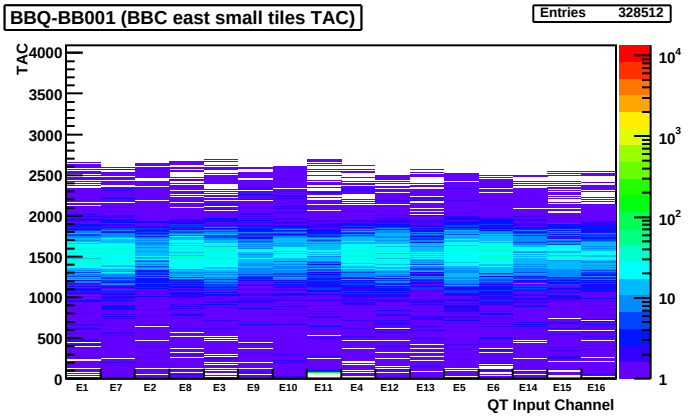

MIX-TF006
Entries 862344
TOF MULT
TOF tray

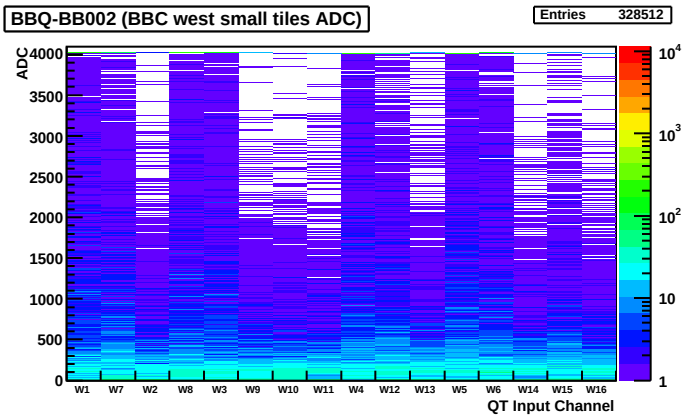

MIX-TF101
Entries 123192
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^4$
$10^3$
$10^2$
10
1

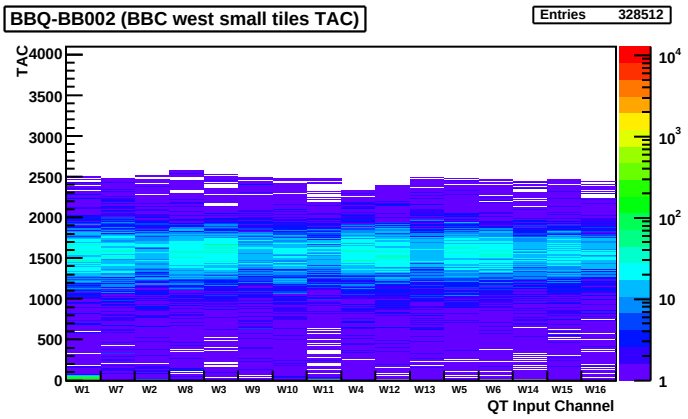

L1-TF201
Entries 20532
$10^4$
$10^3$
$10^2$
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

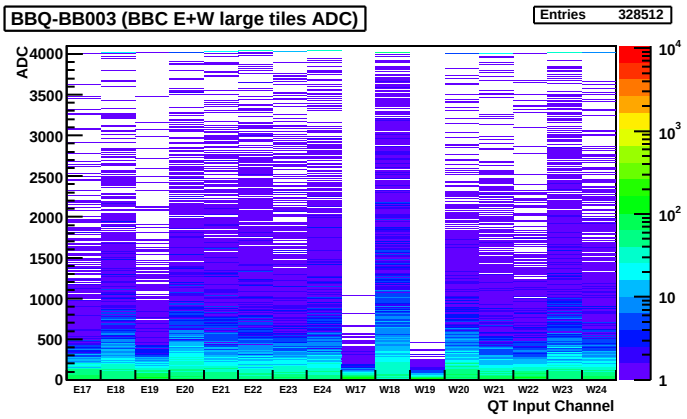

L1-TF201
Entries 123192
Threshold bits
1
0
149
142
125
131
139
133
20383
20390
20407
20401
20393
20399
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
$10^4$
$10^3$

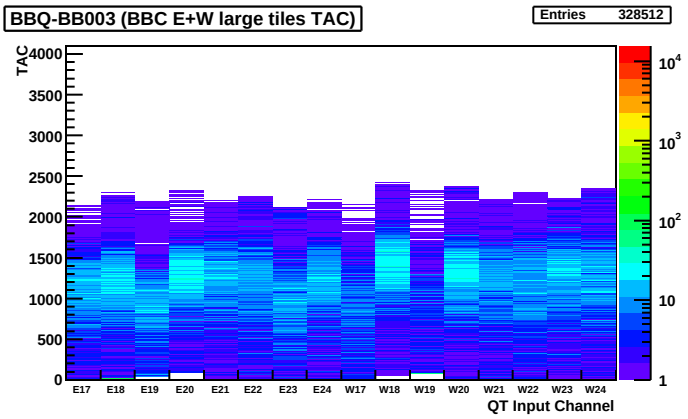

BBQ-BB001 (BBC east small tiles ADC)
Entries 328512
ADC
QT Input Channel

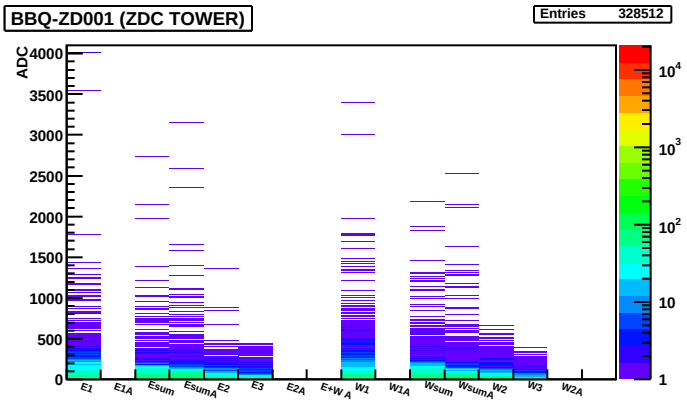

BBQ-BB001 (BBC east small tiles TAC)
Entries 328512
TAC
QT Input Channel

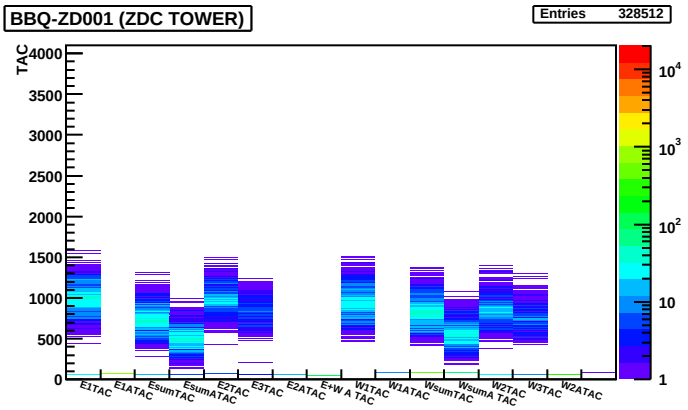

BBQ-BB002 (BBC west small tiles ADC)
Entries 328512
ADC
QT Input Channel

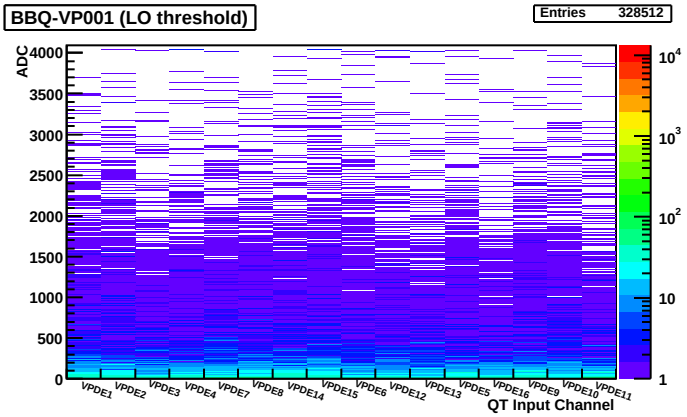

BBQ-BB002 (BBC west small tiles TAC)
Entries 328512
TAC
QT Input Channel

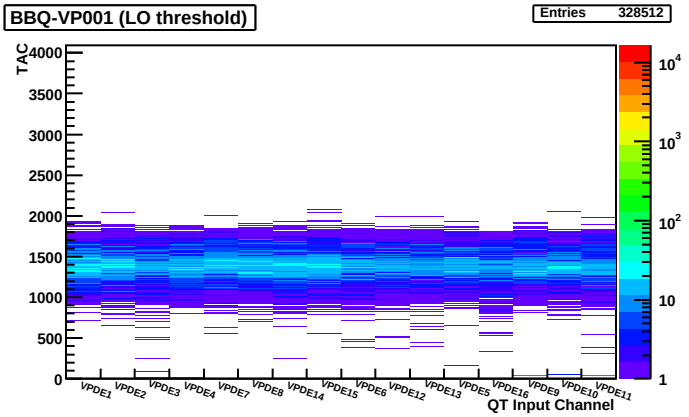

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 328512
ADC
QT Input Channel

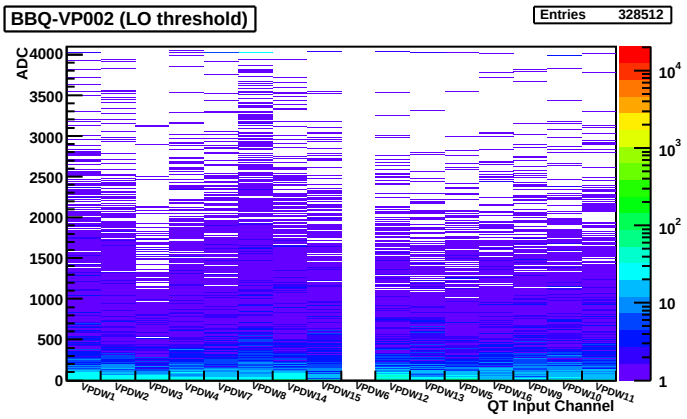

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 328512
TAC
QT Input Channel

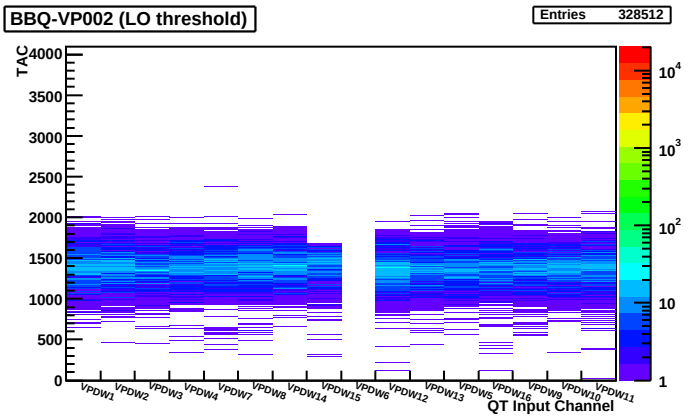

BBQ-ZD001 (ZDC TOWER)
Entries 328512
ADC

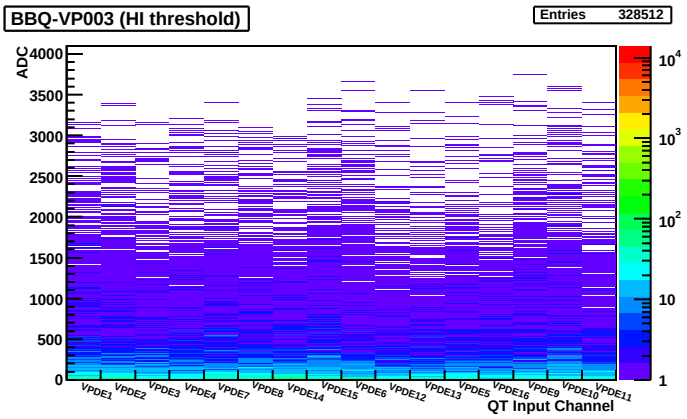

BBQ-ZD001 (ZDC TOWER)
Entries 328512
TAC

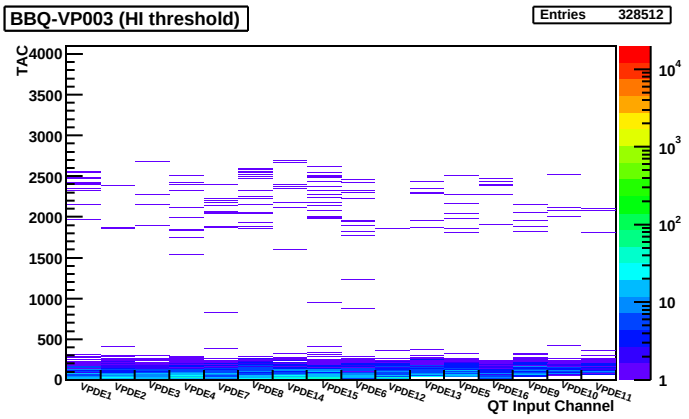

BBQ-VP001 (LO threshold)
Entries 328512
ADC
QT Input Channel

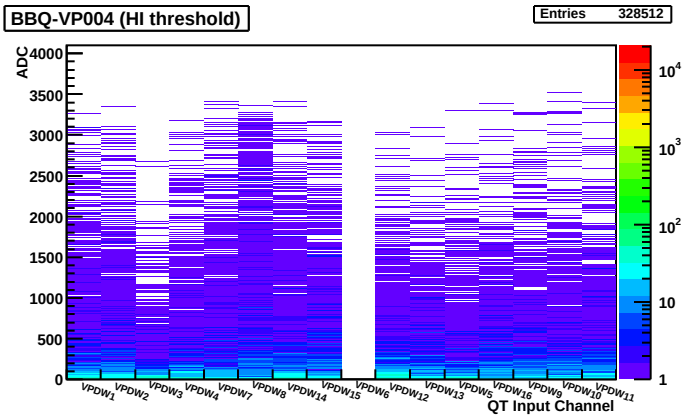

BBQ-VP001 (LO threshold)
Entries 328512
TAC
QT Input Channel

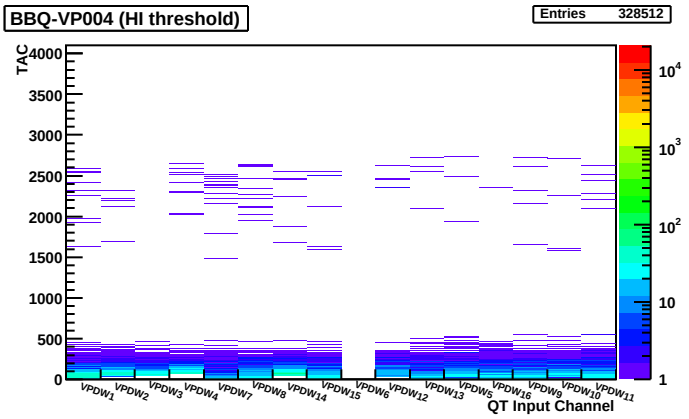

BBQ-VP002 (LO threshold)
Entries 328512
ADC
QT Input Channel

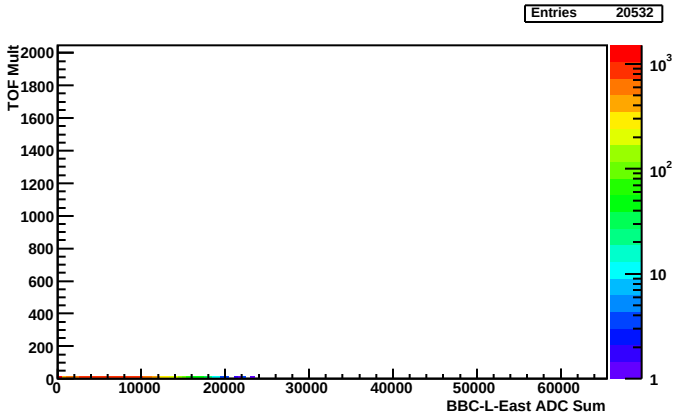

BBQ-VP002 (LO threshold)
Entries 328512
TAC
QT Input Channel

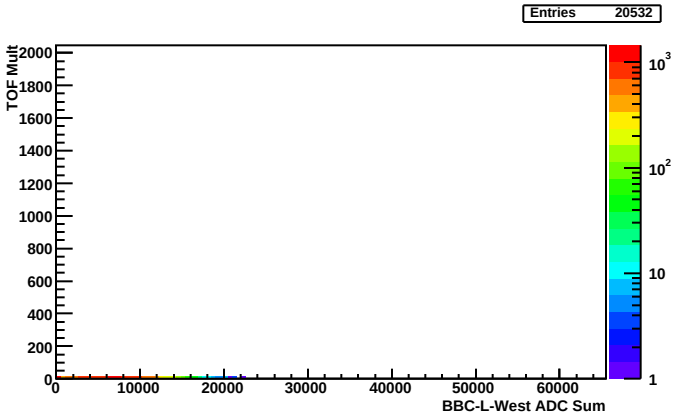

BBQ-VP003 (HI threshold)
Entries 328512
ADC
QT Input Channel

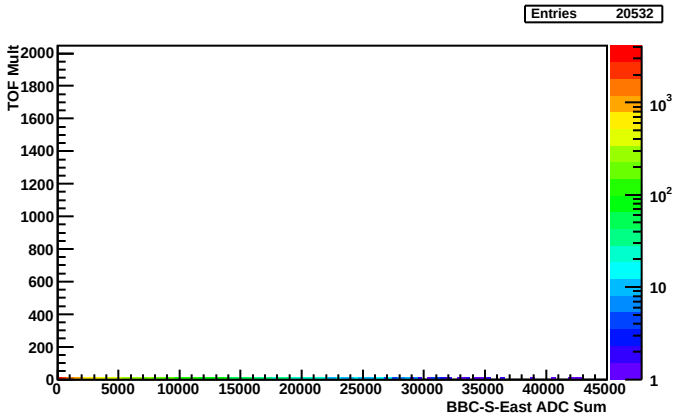

BBQ-VP003 (HI threshold)
Entries 328512
TAC
QT Input Channel

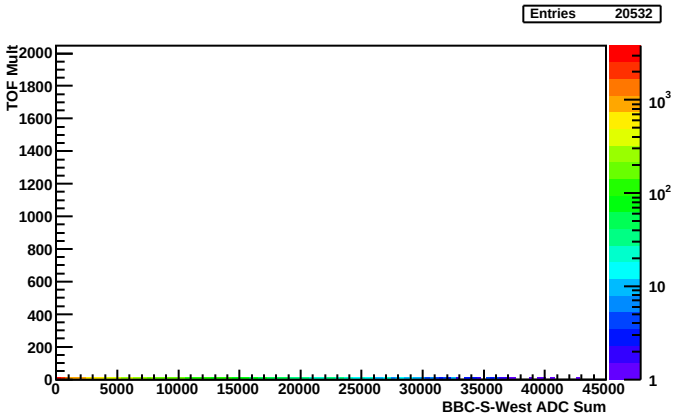

BBQ-VP004 (HI threshold)
Entries 328512
ADC
QT Input Channel

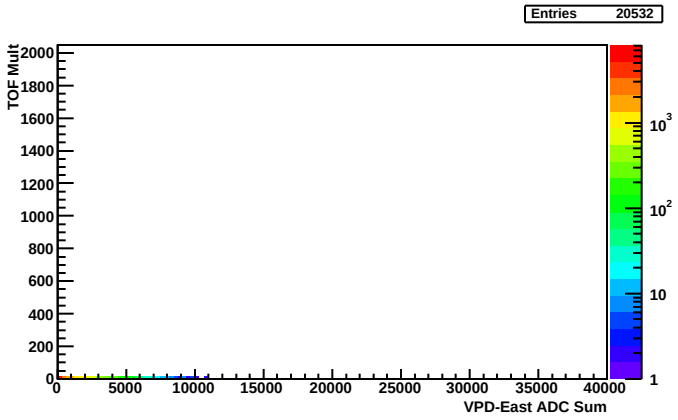

BBQ-VP004 (HI threshold)
Entries 328512
TAC
QT Input Channel

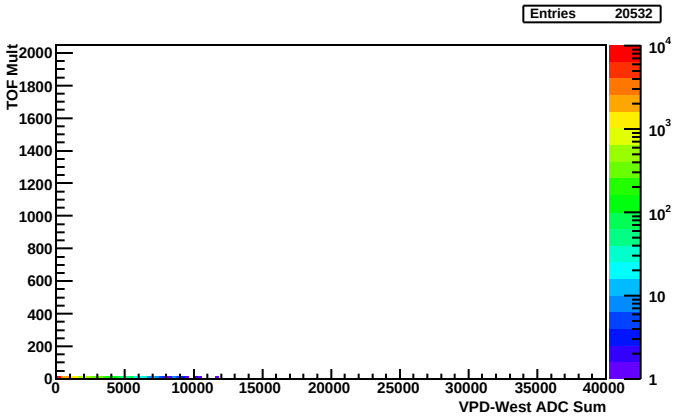

Entries 20532
TOF Mult
BBC-L-East ADC Sum

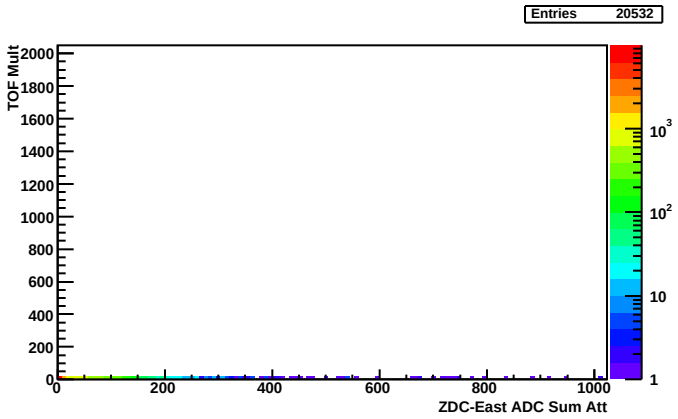

Entries 20532
TOF Mult
BBC-L-West ADC Sum

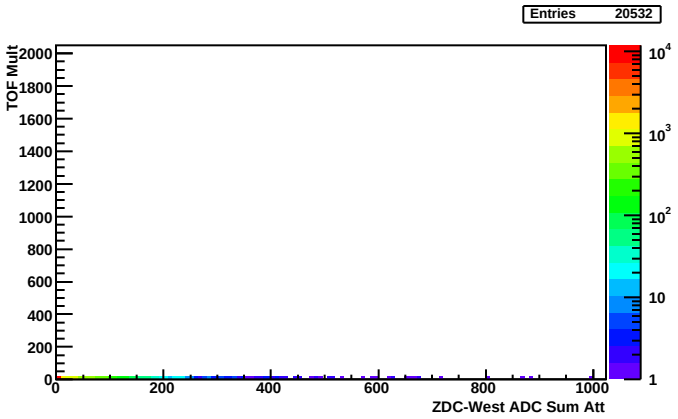

Entries 20532
TOF Mult
BBC-S-East ADC Sum

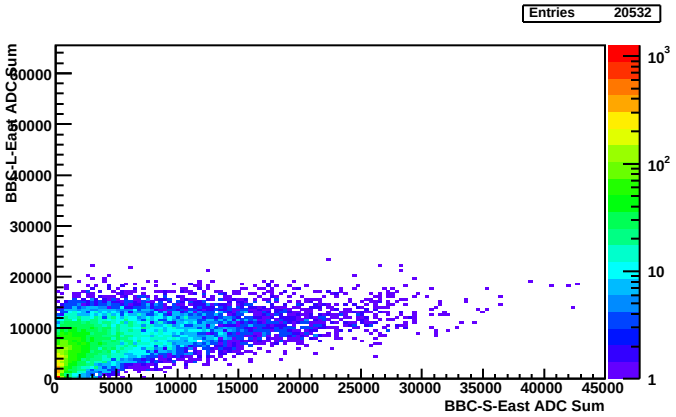

Entries 20532
TOF Mult
BBC-S-West ADC Sum

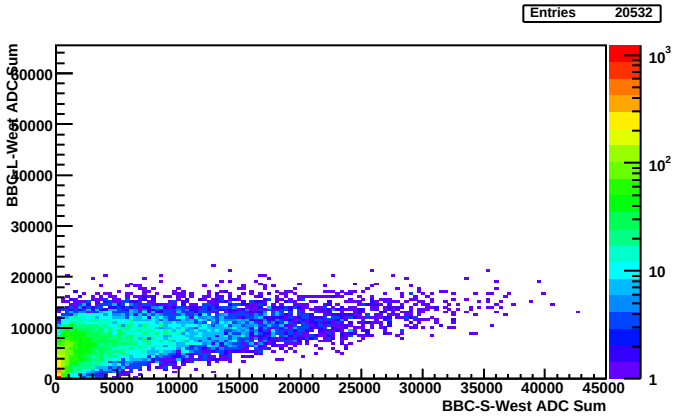

Entries 20532
TOF Mult
VPD-East ADC Sum

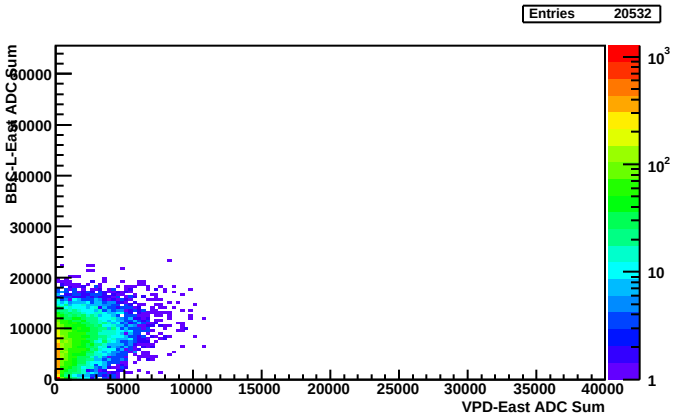

Entries 20532
TOF Mult
VPD-West ADC Sum

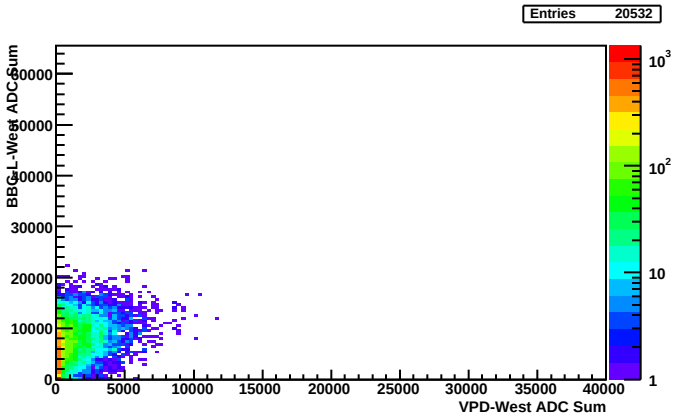

Entries 20532
TOF Mult
ZDC-East ADC Sum Att

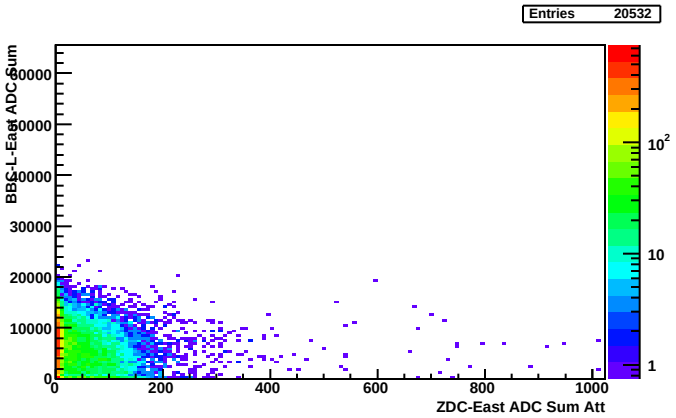

Entries 20532
TOF Mult
ZDC-West ADC Sum Att

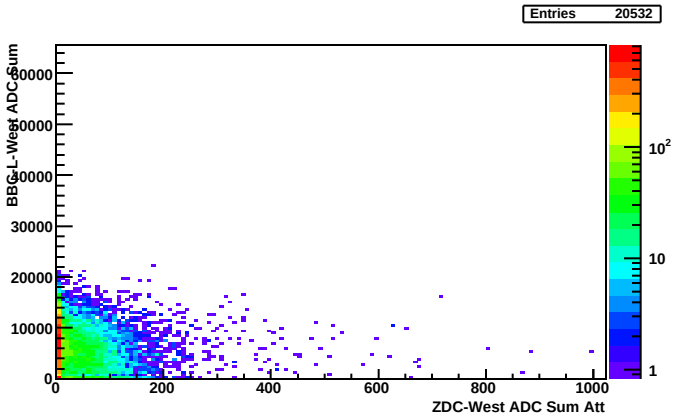

Entries 20532
BBC-L-East ADC Sum
BBC-S-East ADC Sum

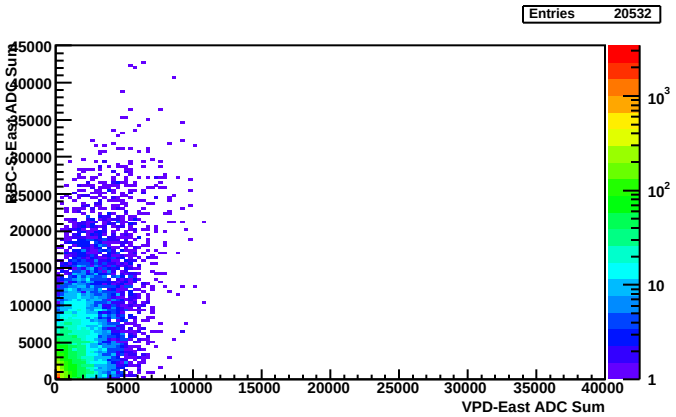

Entries 20532
BBC-L-West ADC Sum
BBC-S-West ADC Sum

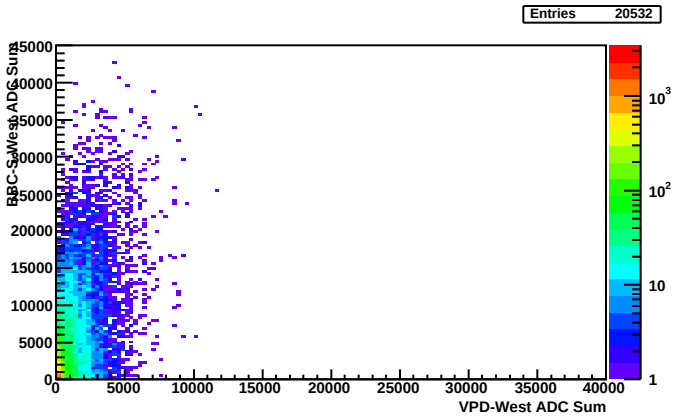

Entries 20532
BBC-L-East ADC Sum
VPD-East ADC Sum

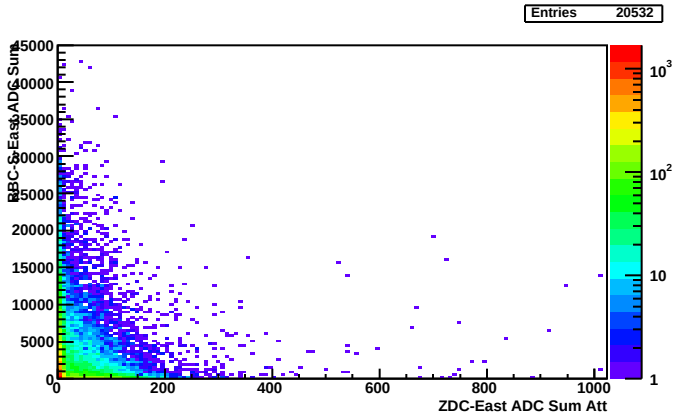

Entries 20532
BBC-L-West ADC Sum
VPD-West ADC Sum

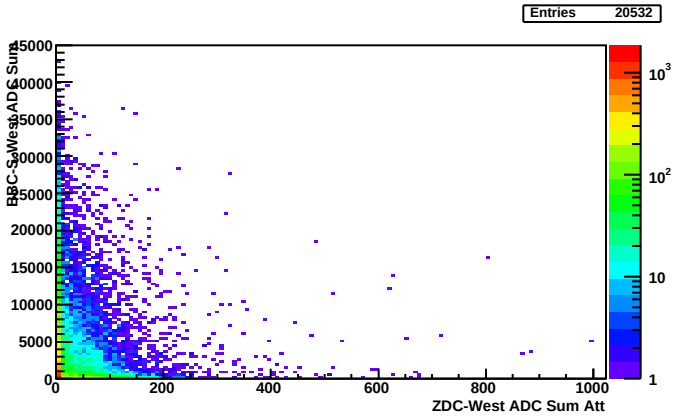

Entries 20532
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

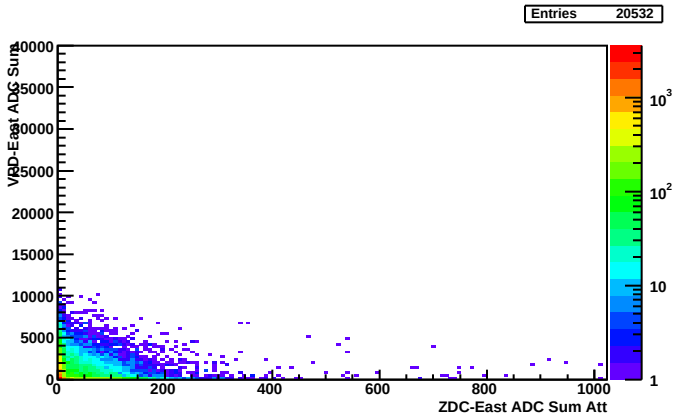

Entries 20532
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

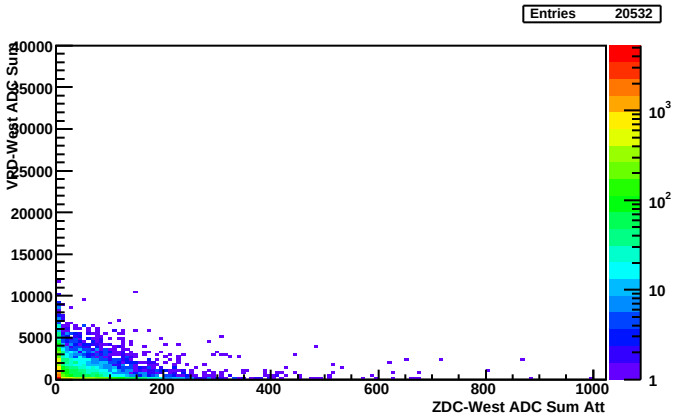

Entries 20532
BBC-S-East ADC Sum
VPD-East ADC Sum

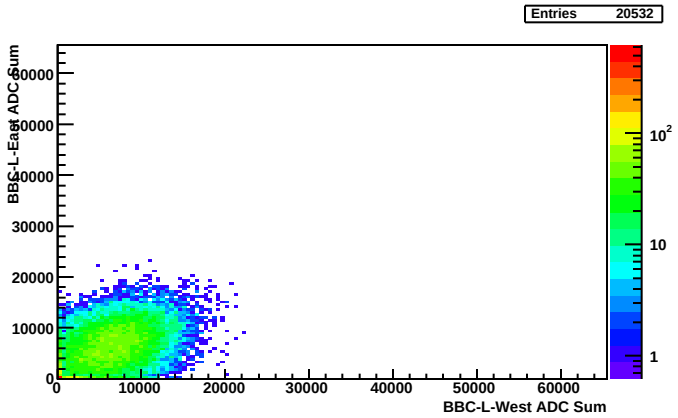

Entries 20532
BBC-S-West ADC Sum
VPD-West ADC Sum

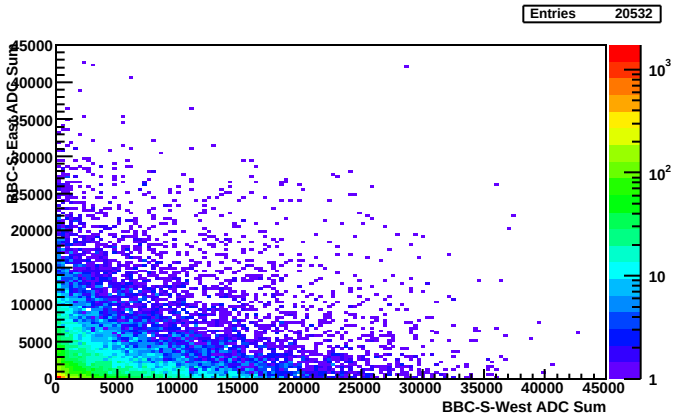

Entries 20532
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

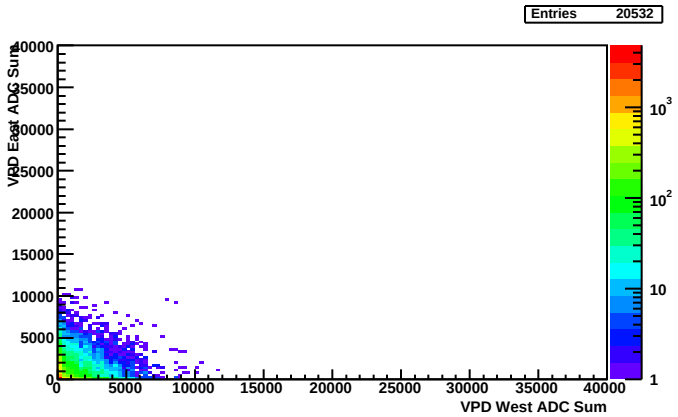

Entries 20532
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

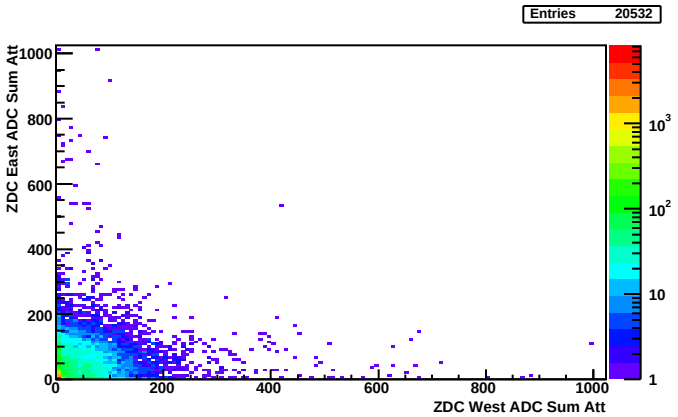

Entries 20532
VPD-East ADC Sum
ZDC-East ADC Sum Att

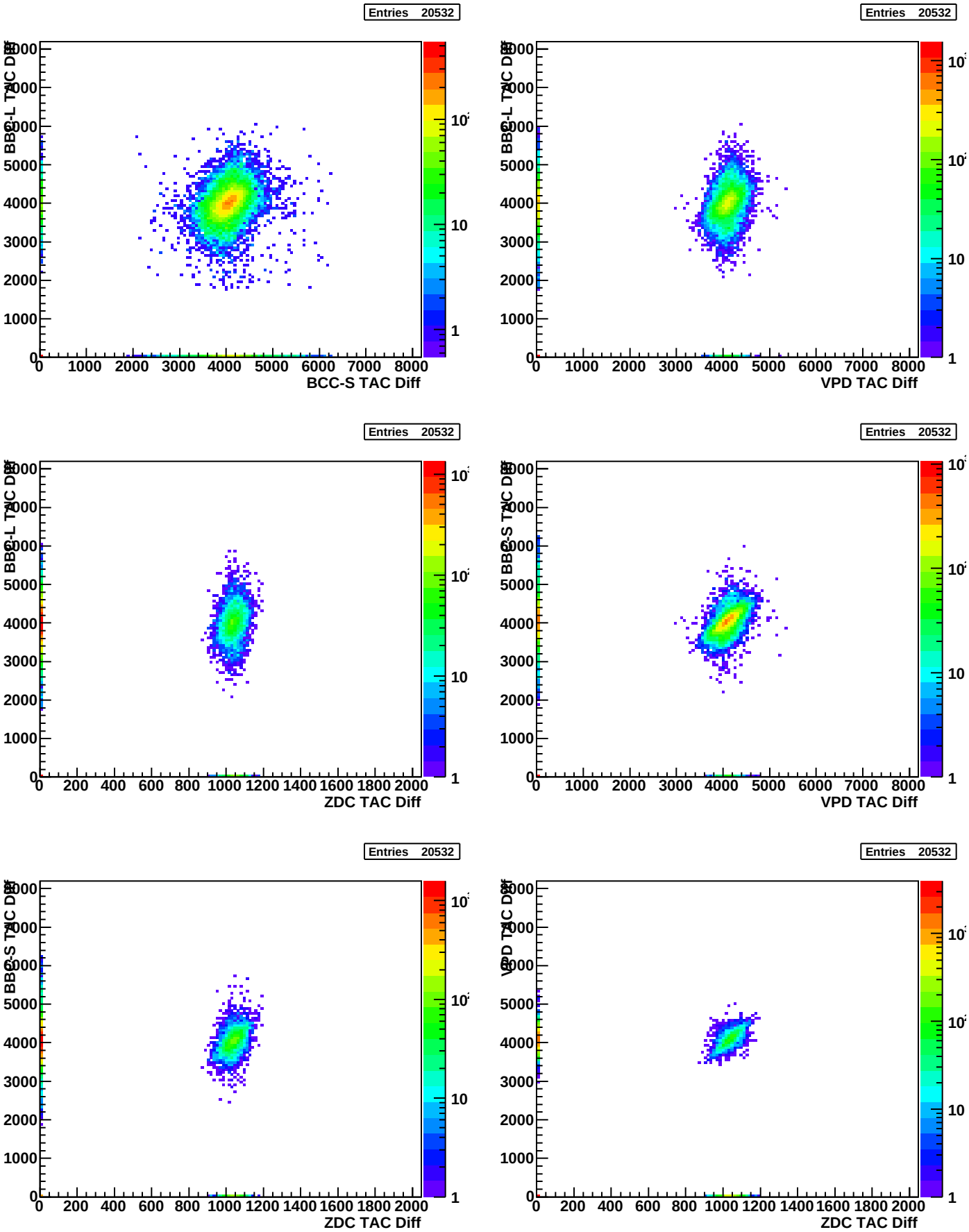

Entries 20532
VPD-West ADC Sum
ZDC-West ADC Sum Att

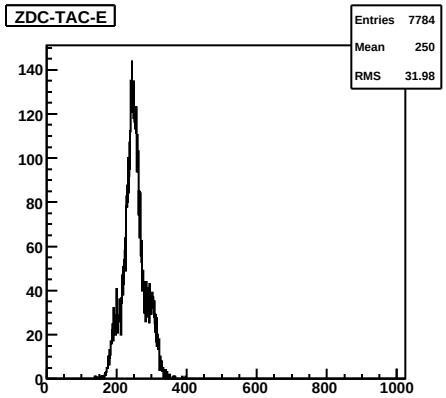

Entries 20532
BBC-L-East ADC Sum
BBC-L-West ADC Sum

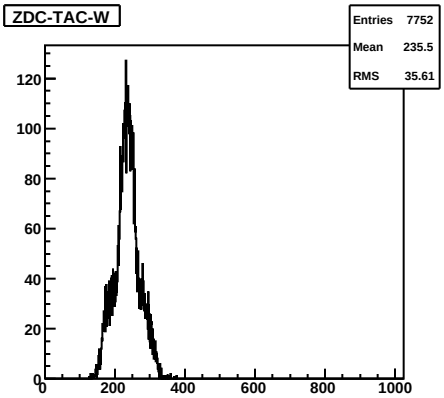

Entries 20532
BBC-S-East ADC Sum
BBC-S-West ADC Sum

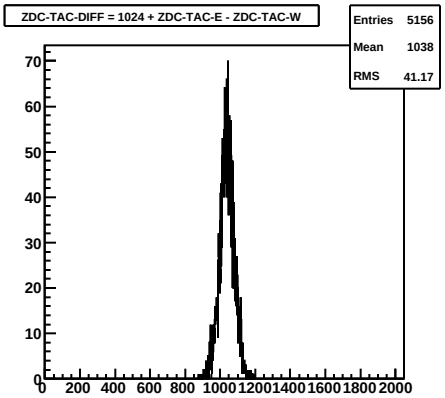

Entries 20532
VPD East ADC Sum
VPD West ADC Sum

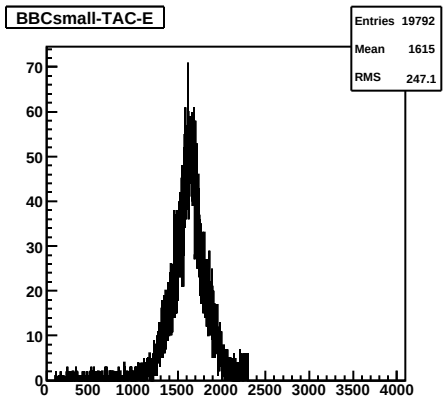

Entries 20532
ZDC East ADC Sum Att
ZDC West ADC Sum Att

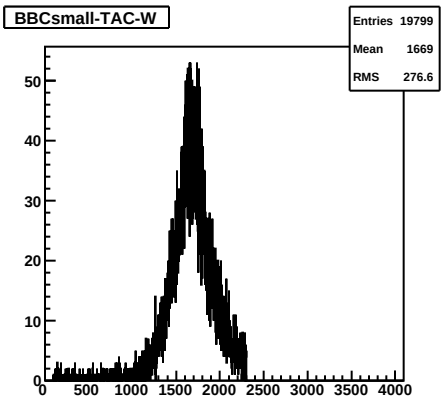

Entries 20532
BBC-L TAC Diff
BCC-S TAC Diff
Entries 20532
BBC-L TAC Diff
VPD TAC Diff
Entries 20532
BBC-L TAC Diff
ZDC TAC Diff
Entries 20532
BBC-S TAC Diff
VPD TAC Diff
Entries 20532
BBC-S TAC Diff
ZDC TAC Diff
Entries 20532
VPD TAC Diff
ZDC TAC Diff

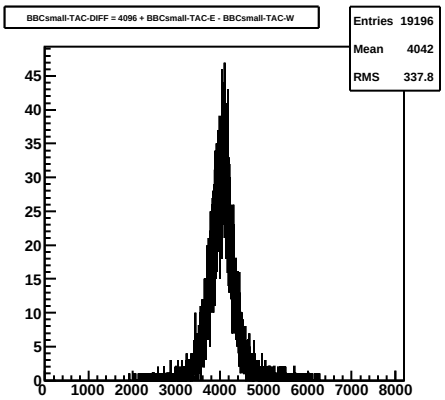

ZDC-TAC-E
Entries 7784
Mean 250
RMS 31.98

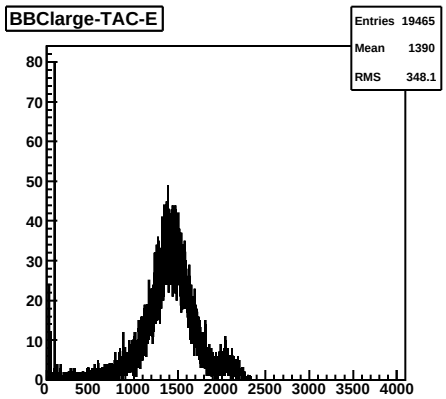

ZDC-TAC-W
Entries 7752
Mean 235.5
RMS 35.61

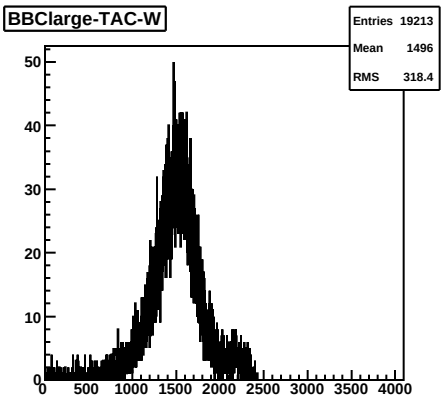

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 5156
Mean 1038
RMS 41.17

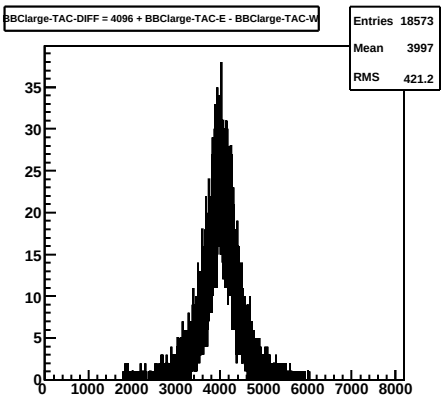

BBCsmall-TAC-E
Entries 19792
Mean 1615
RMS 247.1

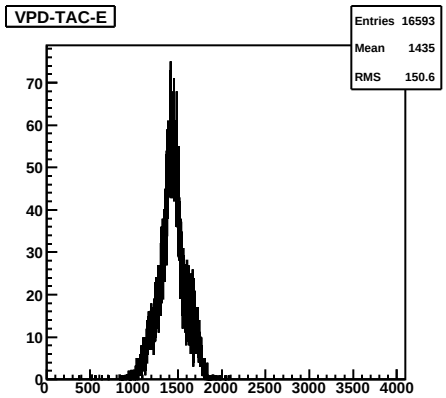

BBCsmall-TAC-W
Entries 19799
Mean 1669
RMS 276.6

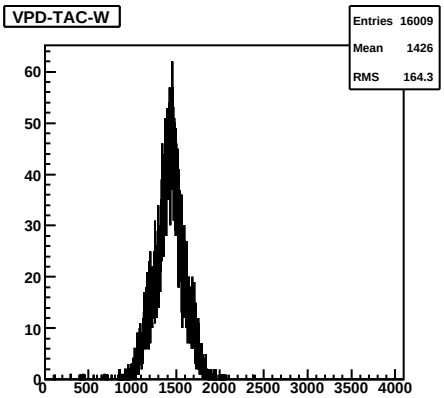

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 19196
Mean 4042
RMS 337.8

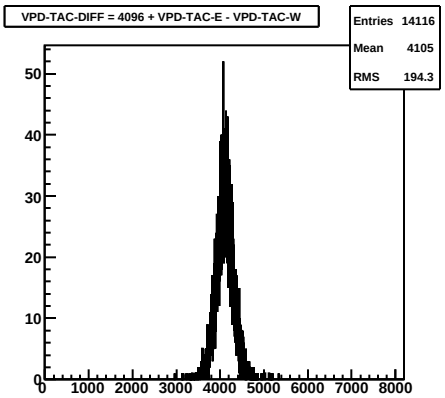

BBClarge-TAC-E
Entries 19465
Mean 1390
RMS 348.1

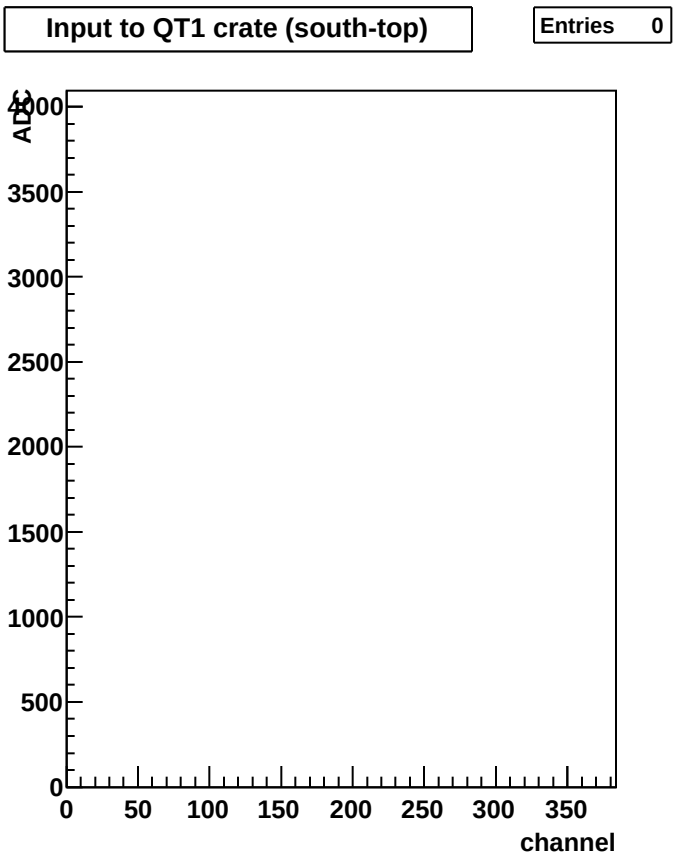

BBClarge-TAC-W
Entries 19213
Mean 1496
RMS 318.4

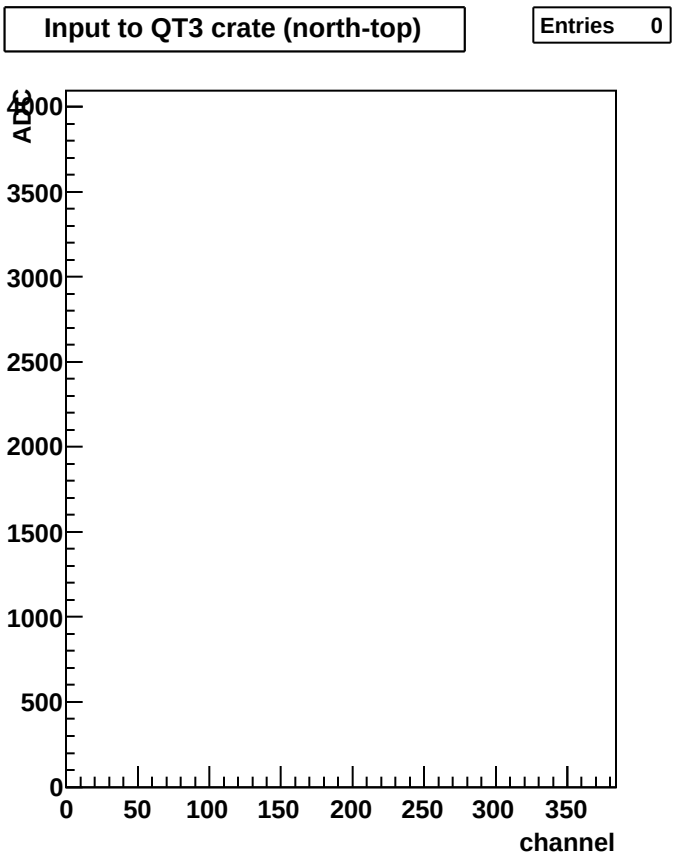

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 18573
Mean 3997
RMS 421.2

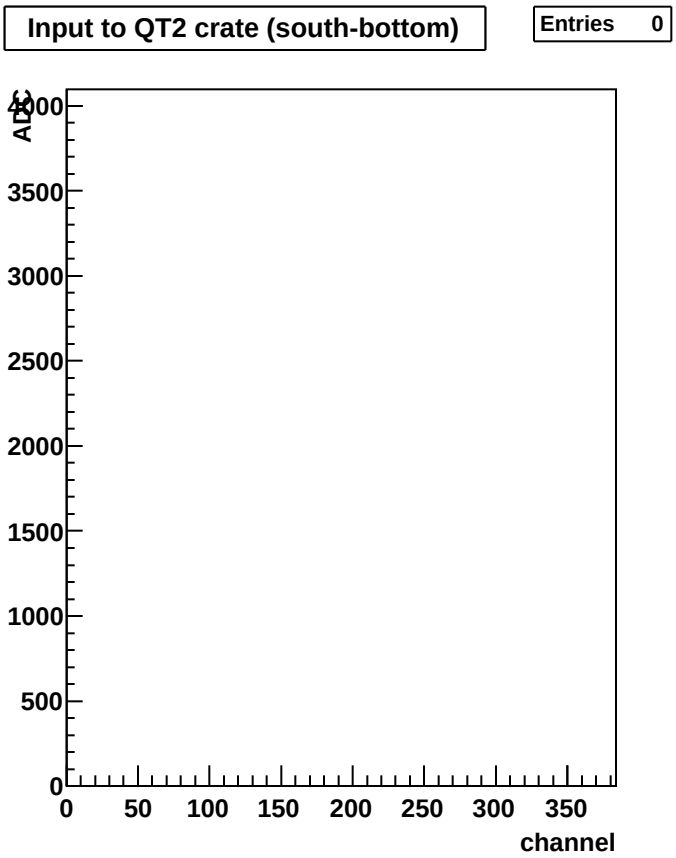

VPD-TAC-E
Entries 16593
Mean 1435
RMS 150.6

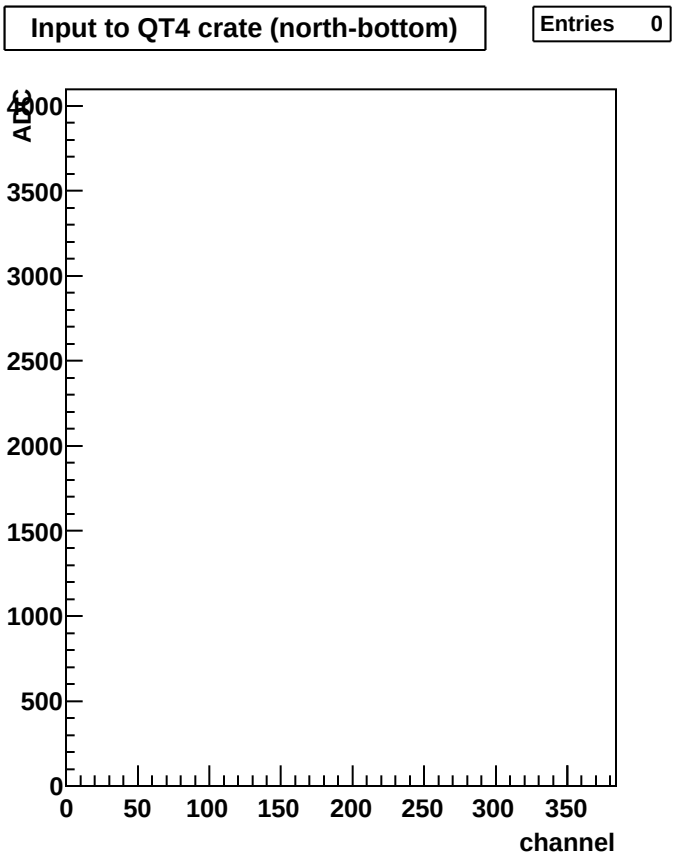

VPD-TAC-W
Entries 16009
Mean 1426
RMS 164.3

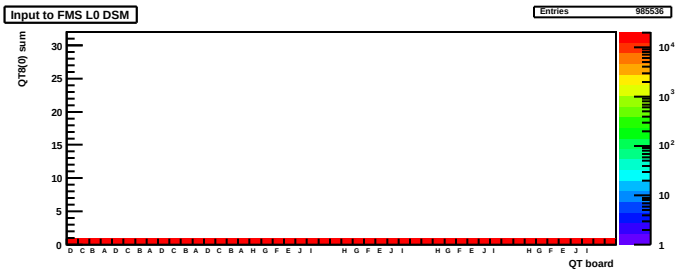

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 14116
Mean 4105
RMS 194.3

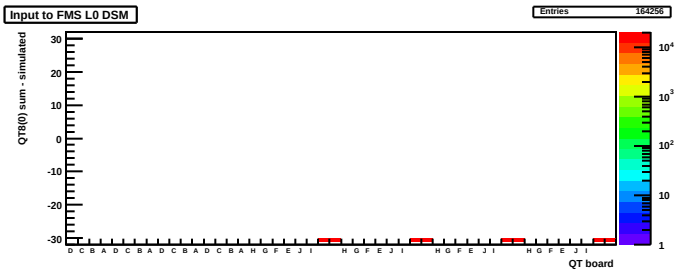

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

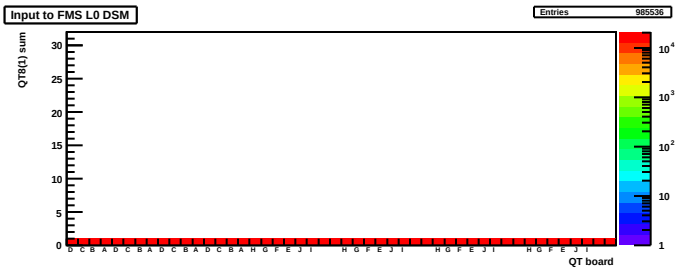

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

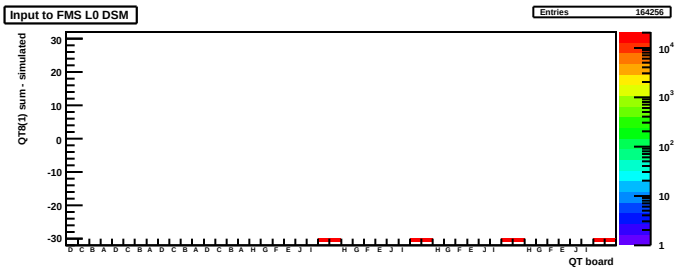

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

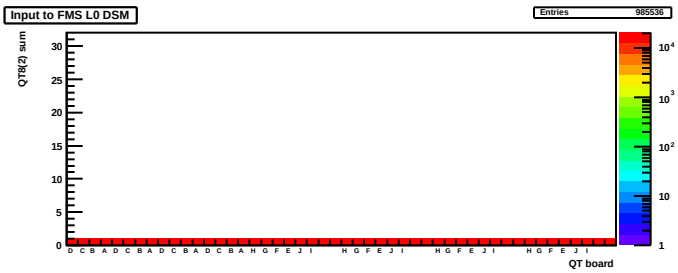

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

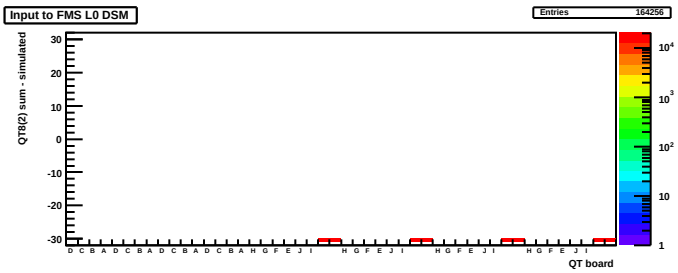

Input to FMS L0 DSM
Entries 985536
QT8(0) sum
QT board

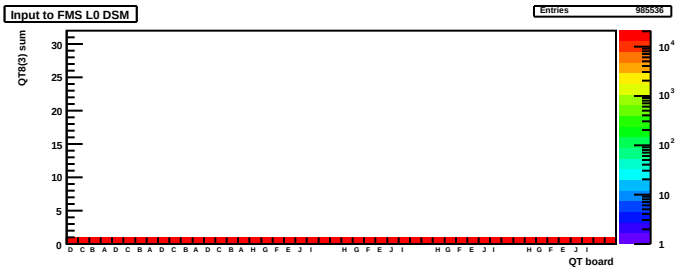

Input to FMS L0 DSM
Entries 164256
QT8(0) sum - simulated
QT board

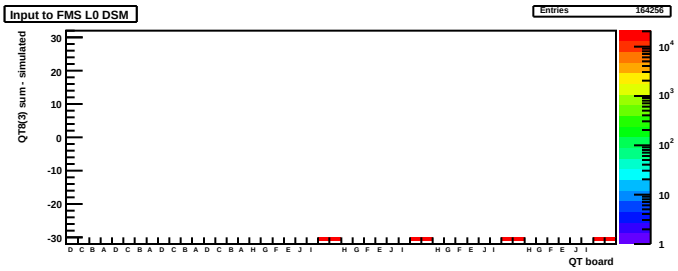

Input to FMS L0 DSM
Entries 985536
QT8(1) sum
QT board

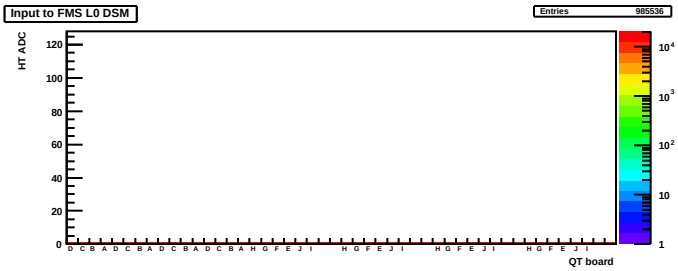

Input to FMS L0 DSM
Entries 164256
QT8(1) sum - simulated
QT board

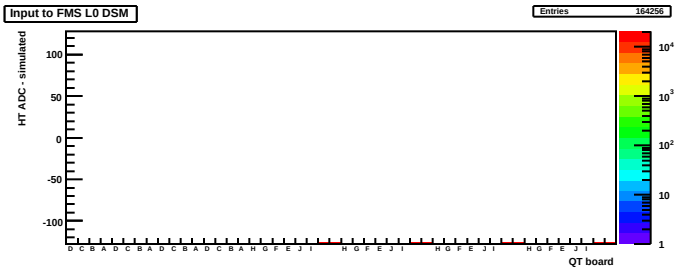

Input to FMS L0 DSM
Entries 985536
QT8(2) sum
QT board

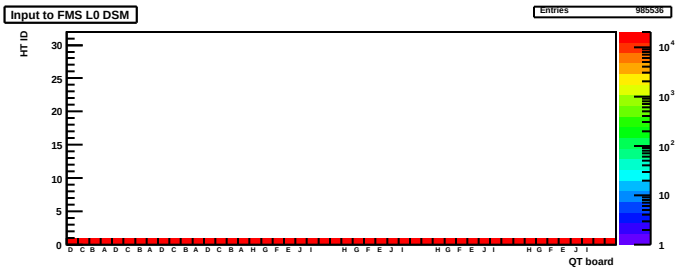

Input to FMS L0 DSM
Entries 164256
QT8(2) sum - simulated
QT board

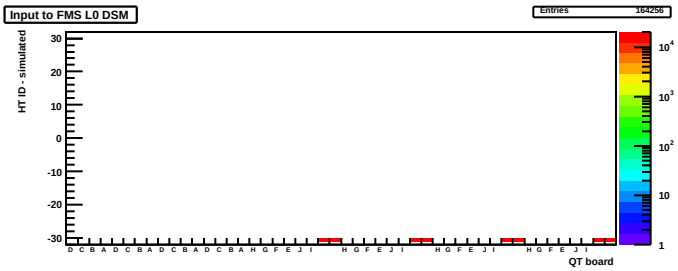

Input to FMS L0 DSM
Entries 985536
QT8(3) sum
QT board

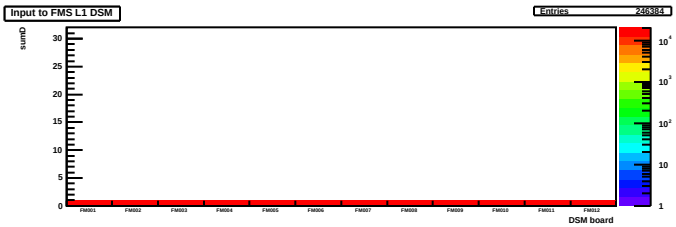

Input to FMS L0 DSM
Entries 164256
QT8(3) sum - simulated
QT board

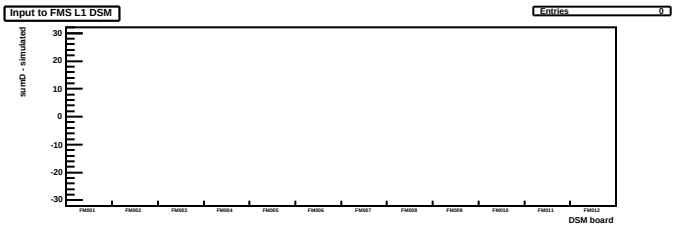

Input to FMS L0 DSM
Entries 985536
HT ADC
QT board

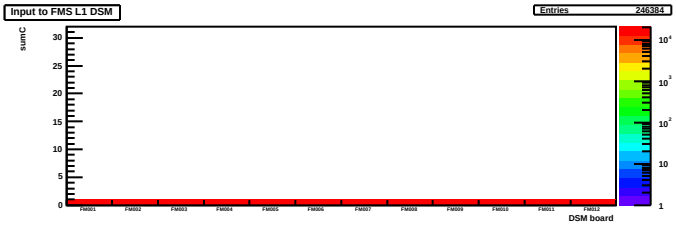

Input to FMS L0 DSM
Entries 164256
HT ADC - simulated
QT board

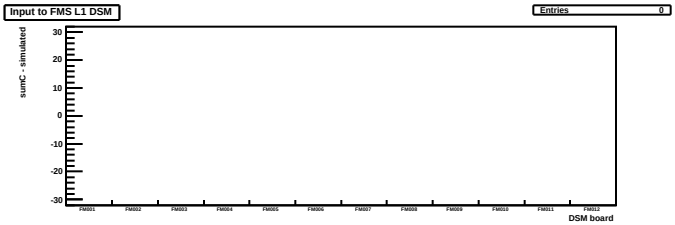

Input to FMS L0 DSM
Entries 985536
HT ID
QT board

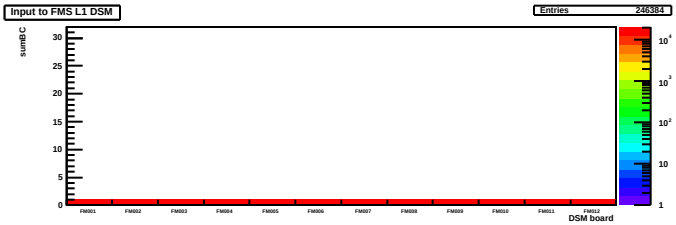

Input to FMS L0 DSM
Entries 164256
HT ID - simulated
QT board

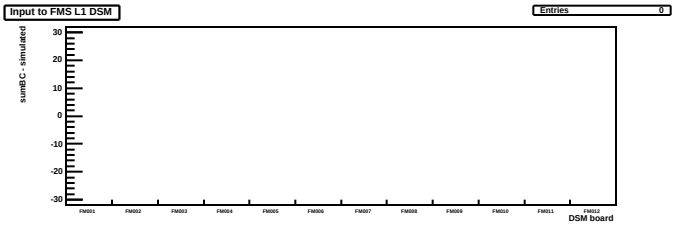

Input to FMS L1 DSM
Entries 246384
sumD
DSM board

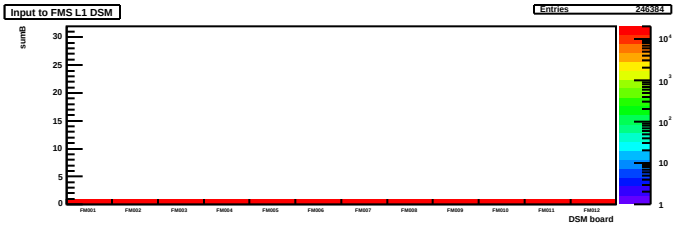

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

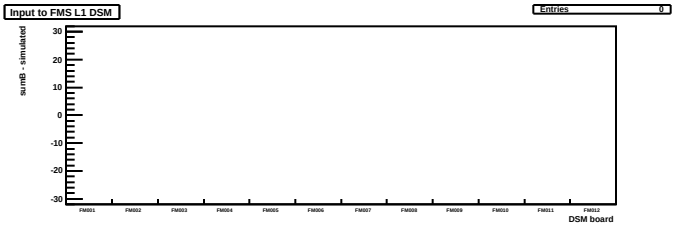

Input to FMS L1 DSM
Entries 246384
sumC
DSM board

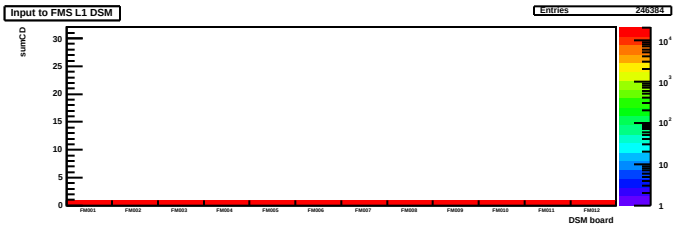

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

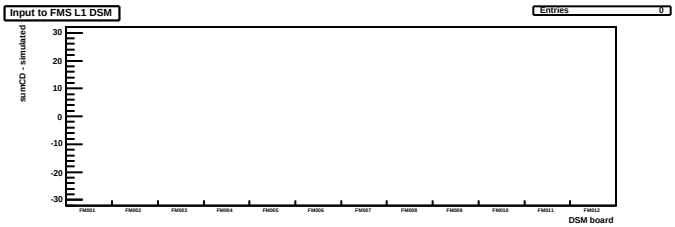

Input to FMS L1 DSM
Entries 246384
sumBC
DSM board

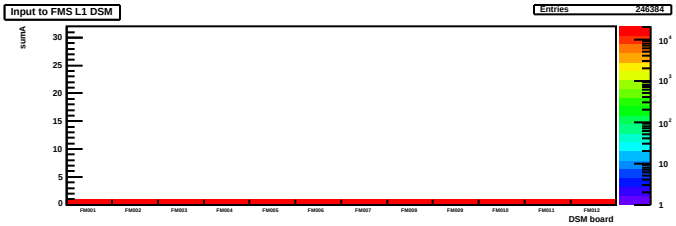

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

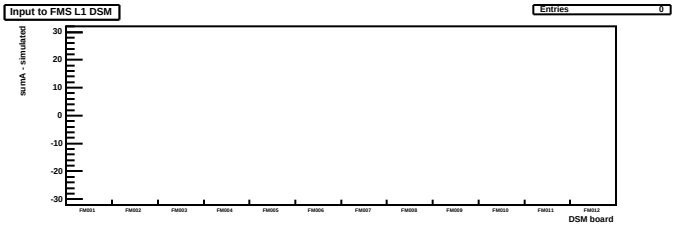

Input to FMS L1 DSM
Entries 246384
sumB
DSM board

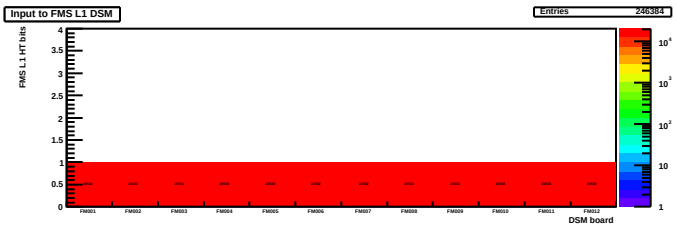

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

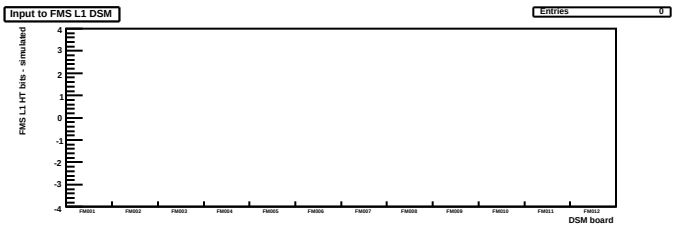

Input to FMS L1 DSM
Entries 246384
sumCD
DSM board

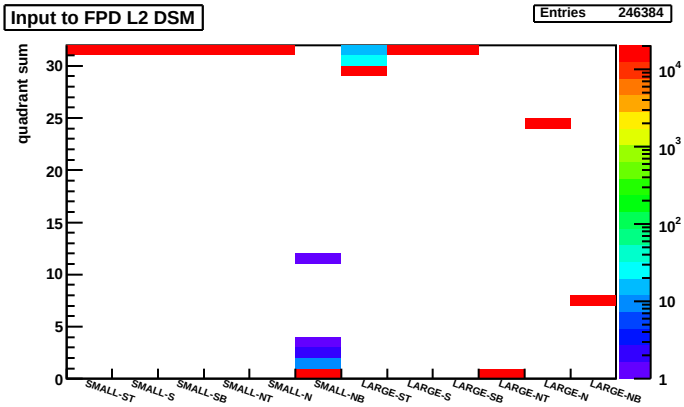

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

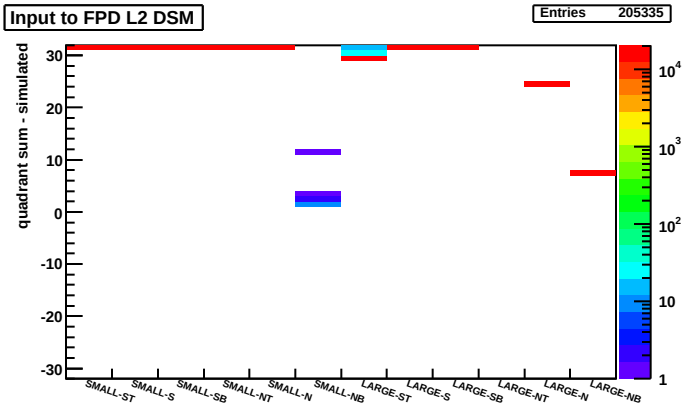

Input to FMS L1 DSM
Entries 246384
sumA
DSM board

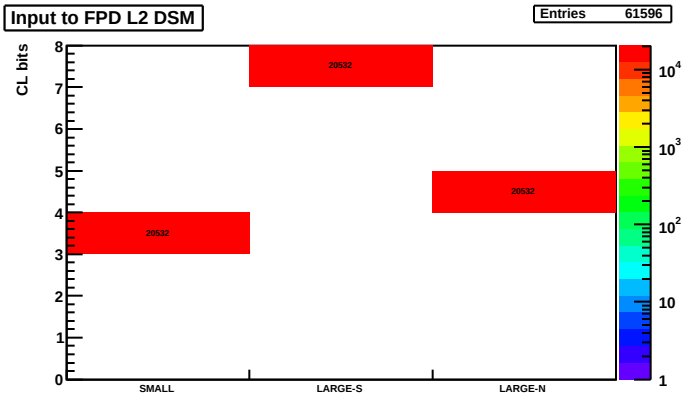

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

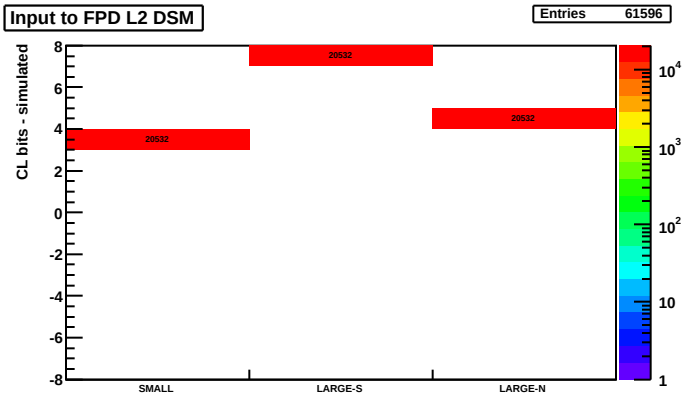

Input to FMS L1 DSM
Entries 246384
FMS L1 HT bits
DSM board

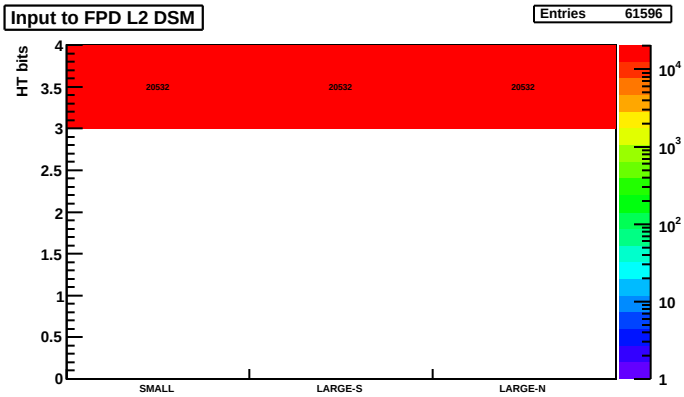

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

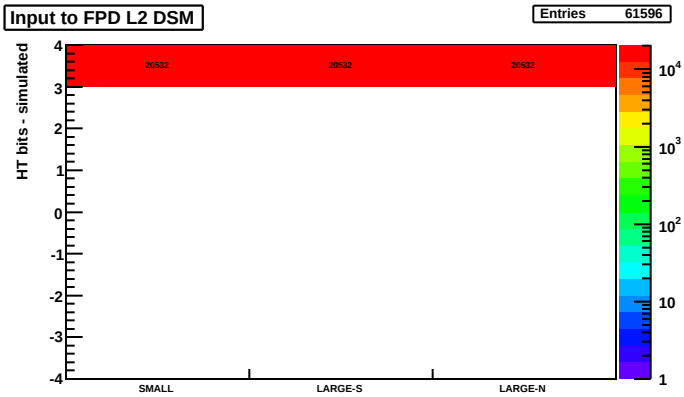

Input to FPD L2 DSM
Entries 246384
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

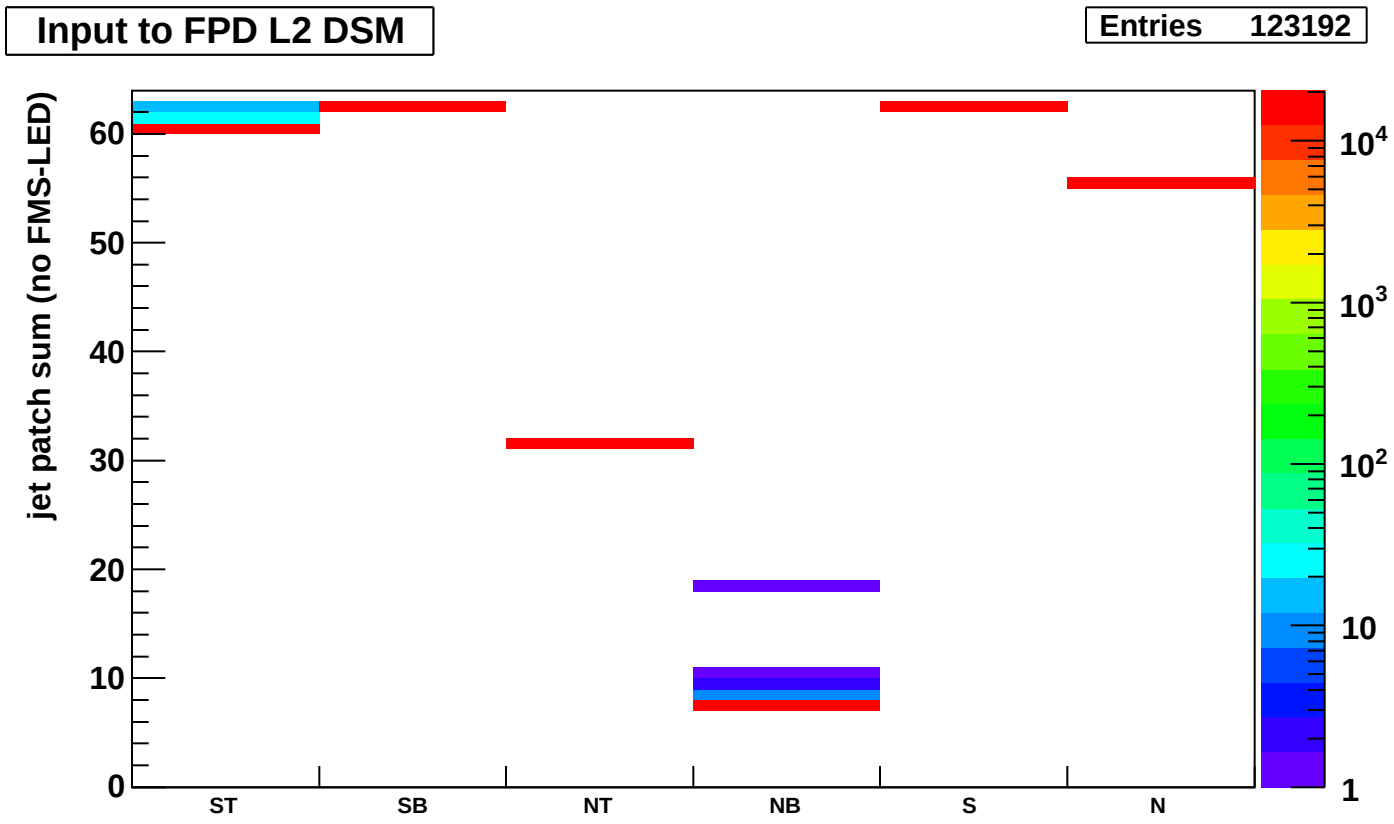

Input to FPD L2 DSM
Entries 205335
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

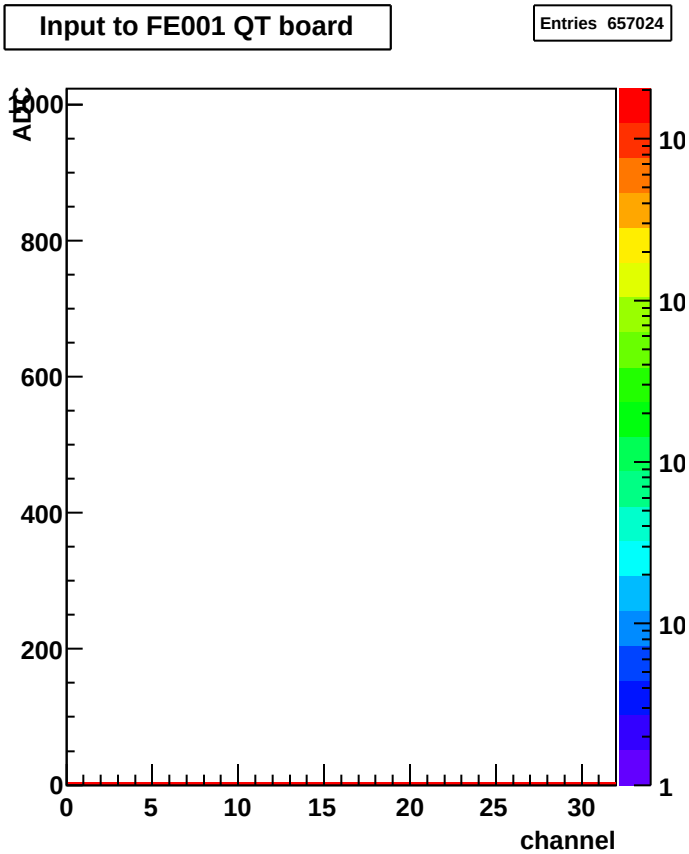

Input to FPD L2 DSM
Entries 61596
CL bits
20532
20532
20532
SMALL
LARGE-S
LARGE-N

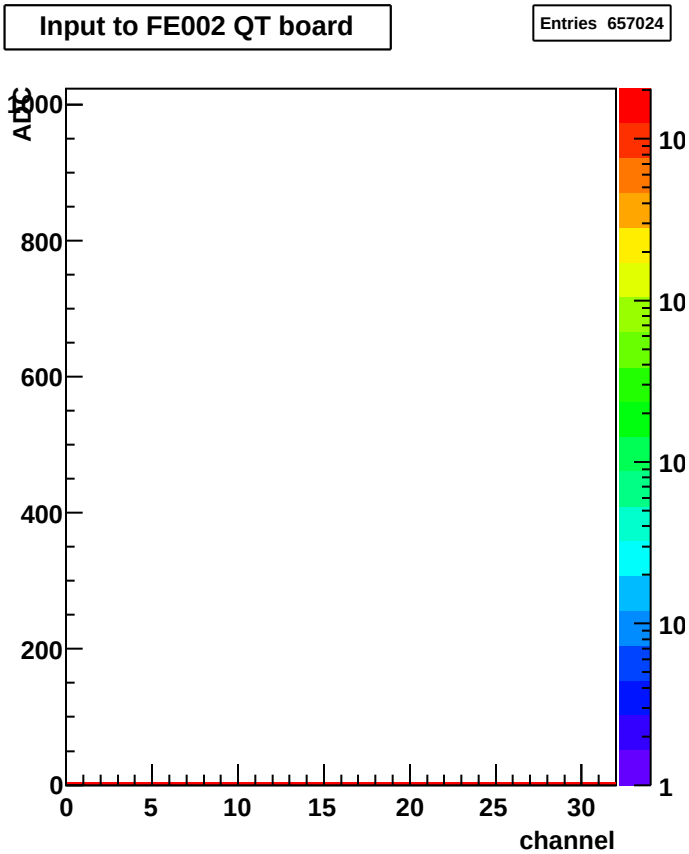

Input to FPD L2 DSM
Entries 61596
CL bits - simulated
20532
20532
20532
SMALL
LARGE-S
LARGE-N

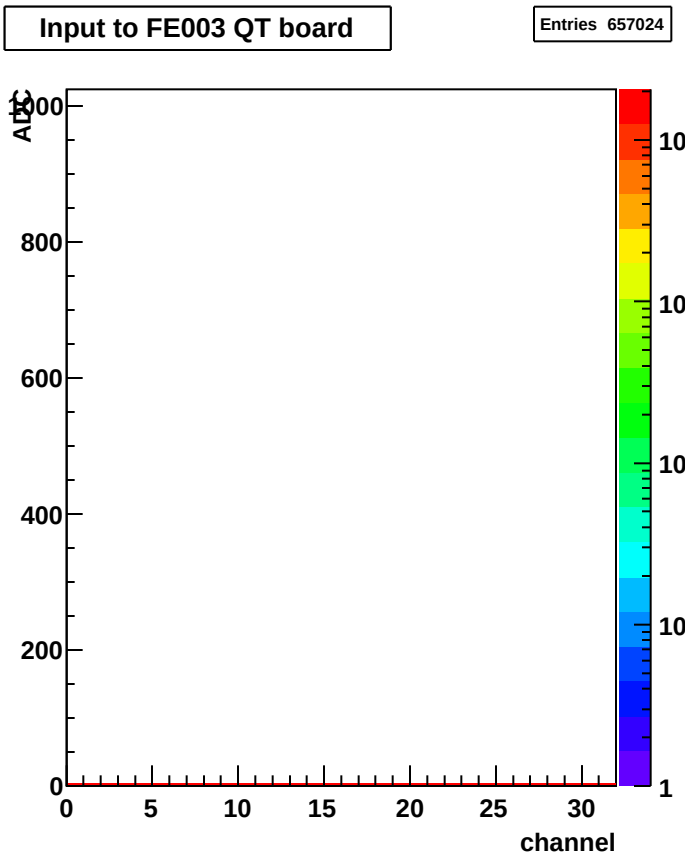

Input to FPD L2 DSM
Entries 61596
HT bits
20532
20532
20532
SMALL
LARGE-S
LARGE-N

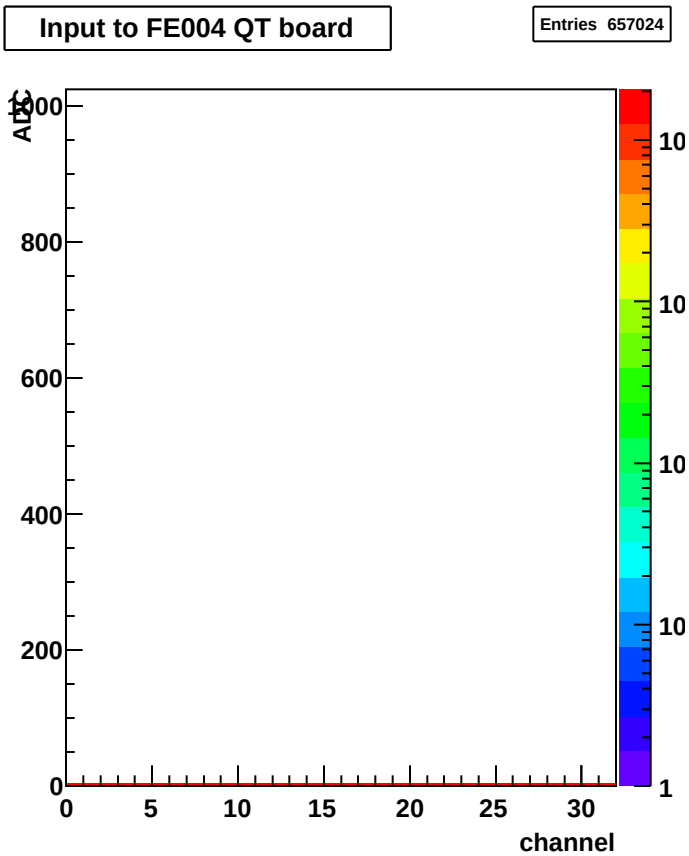

Input to FPD L2 DSM
Entries 61596
HT bits - simulated
20532
20532
20532
SMALL
LARGE-S
LARGE-N

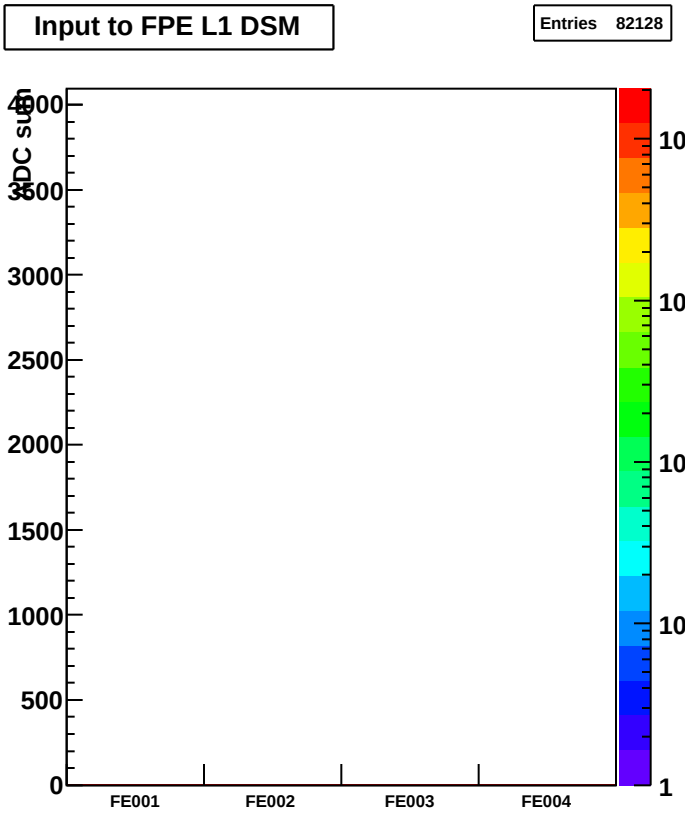

Input to FPD L2 DSM
Entries 123192
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
$10^2$
$10^3$
$10^4$

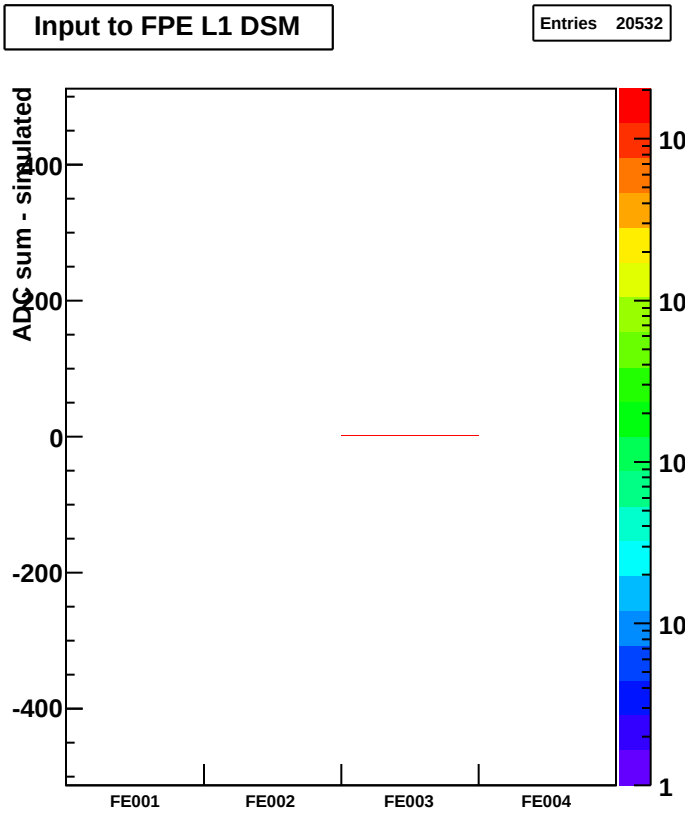

Input to FE001 QT board
Entries 657024
ADC
channel

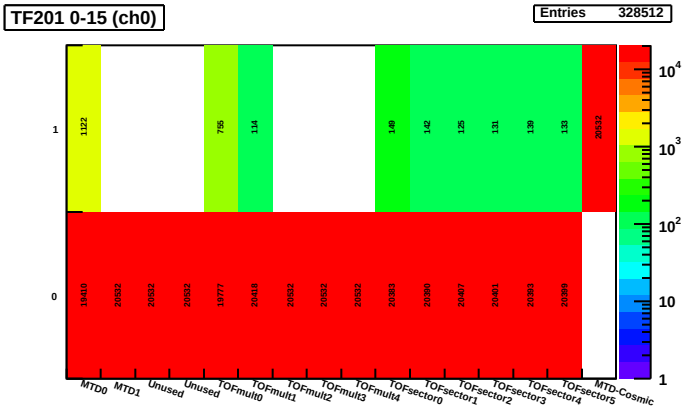

Input to FE002 QT board
Entries 657024
ADC
channel

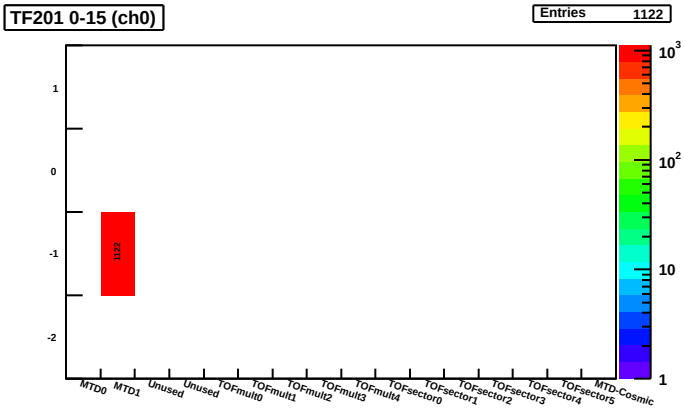

Input to FE003 QT board
Entries 657024
ADC
channel

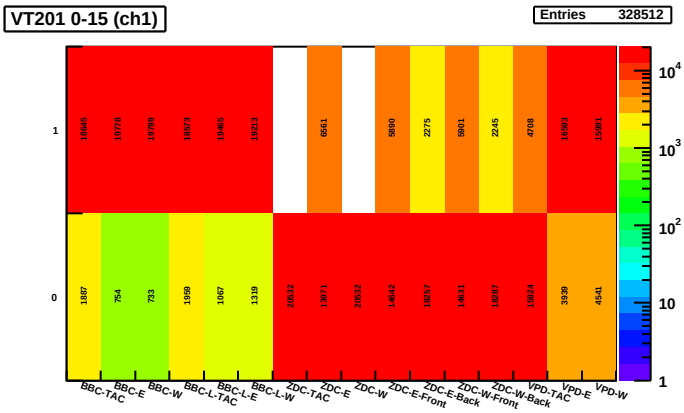

Input to FE004 QT board
Entries 657024
ADC
channel

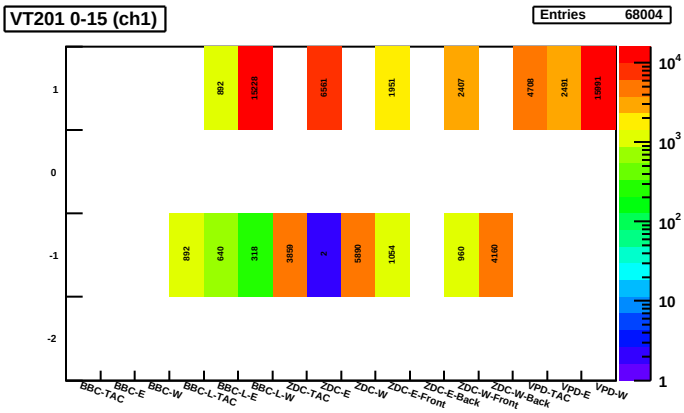

Input to FPE L1 DSM
Entries 82128
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

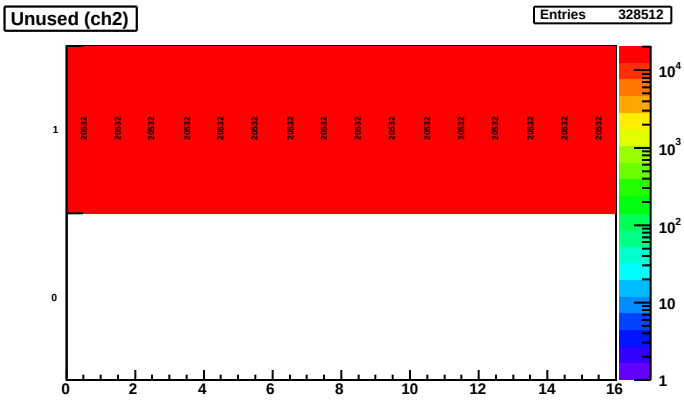

Input to FPE L1 DSM
Entries 20532
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

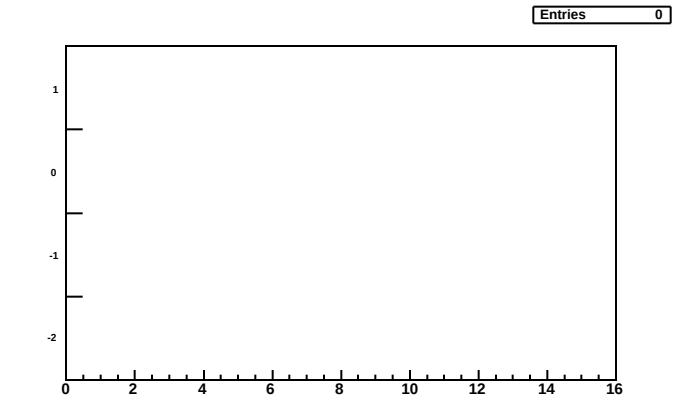

TF201 0-15 (ch0)
Entries 328512
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

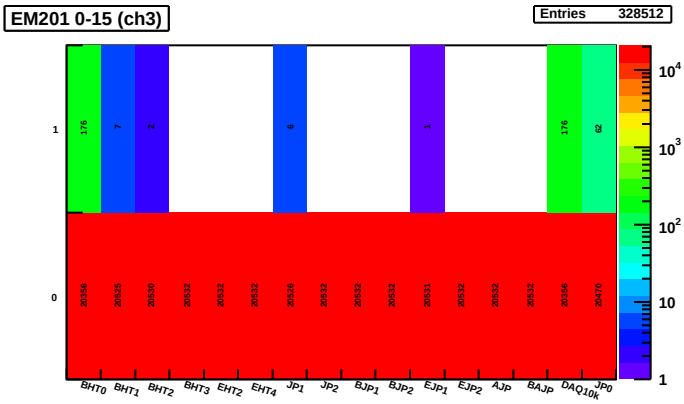

TF201 0-15 (ch0)
Entries 1122
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

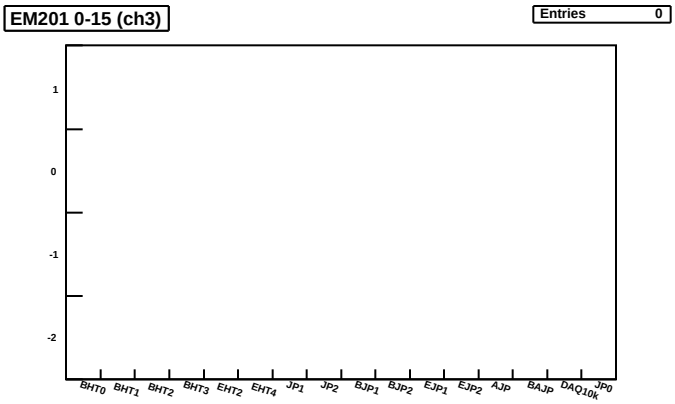

VT201 0-15 (ch1)
Entries 328512
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

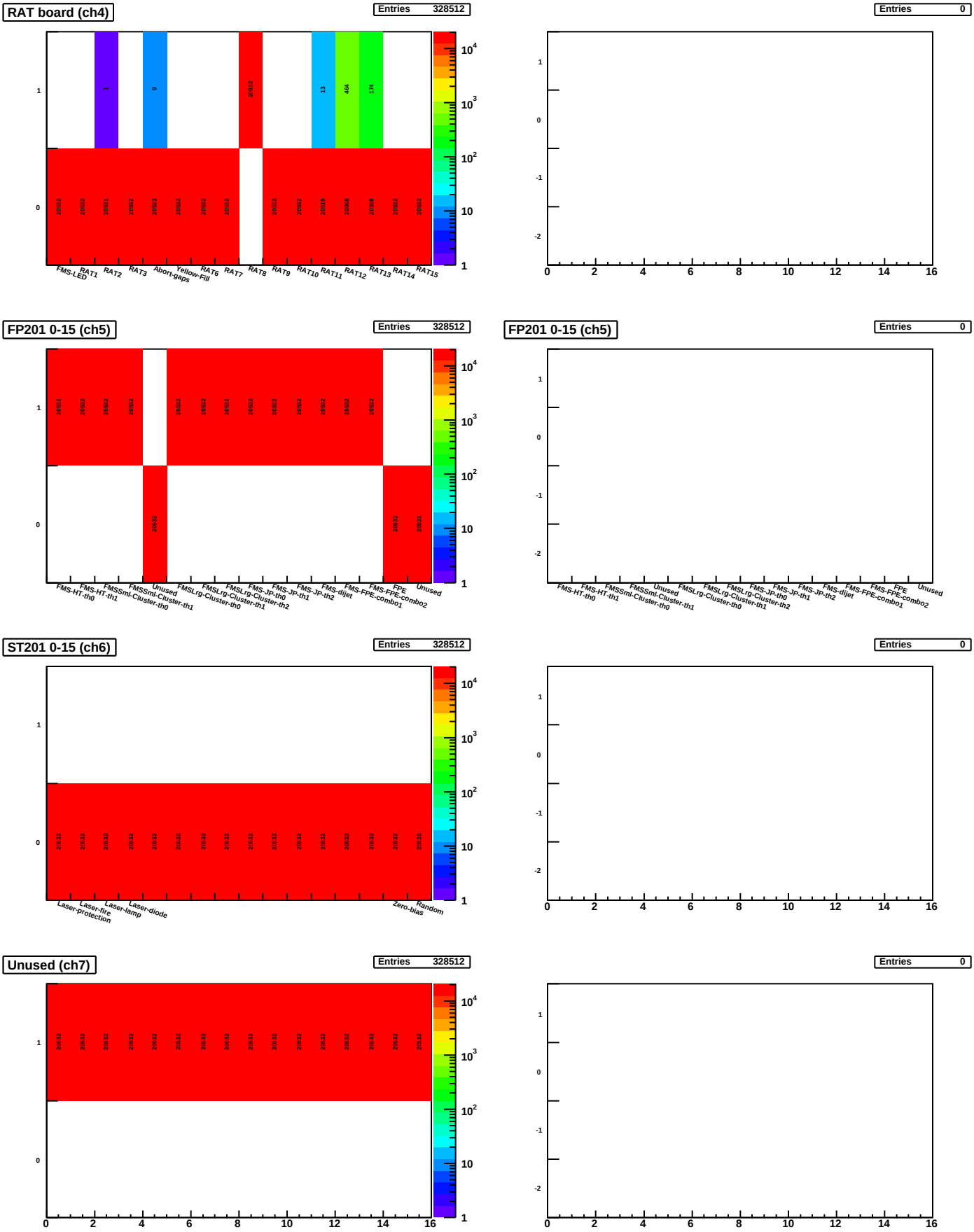

VT201 0-15 (ch1)
Entries 68004
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 328512


Entries 0


EM201 0-15 (ch3)
Entries 328512
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


RAT board (ch4)
Entries 328512
Entries 0
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15
FP201 0-15 (ch5)
Entries 328512
Entries 0
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-diijet
FMS-FPE-combo1
FMS-FPE-combo2
FPE
Unused
ST201 0-15 (ch6)
Entries 328512
Entries 0
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random
Unused (ch7)
Entries 328512
Entries 0