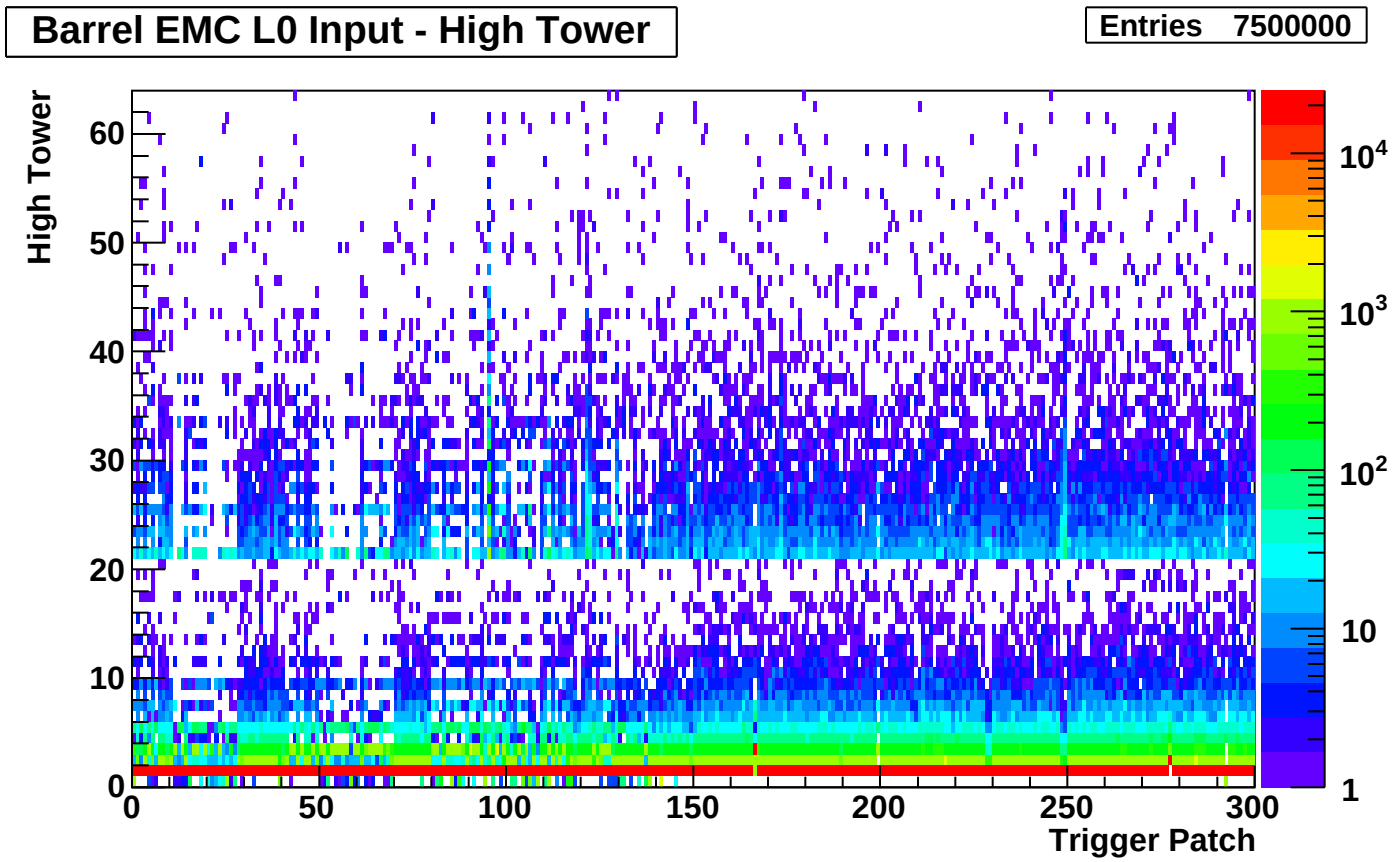
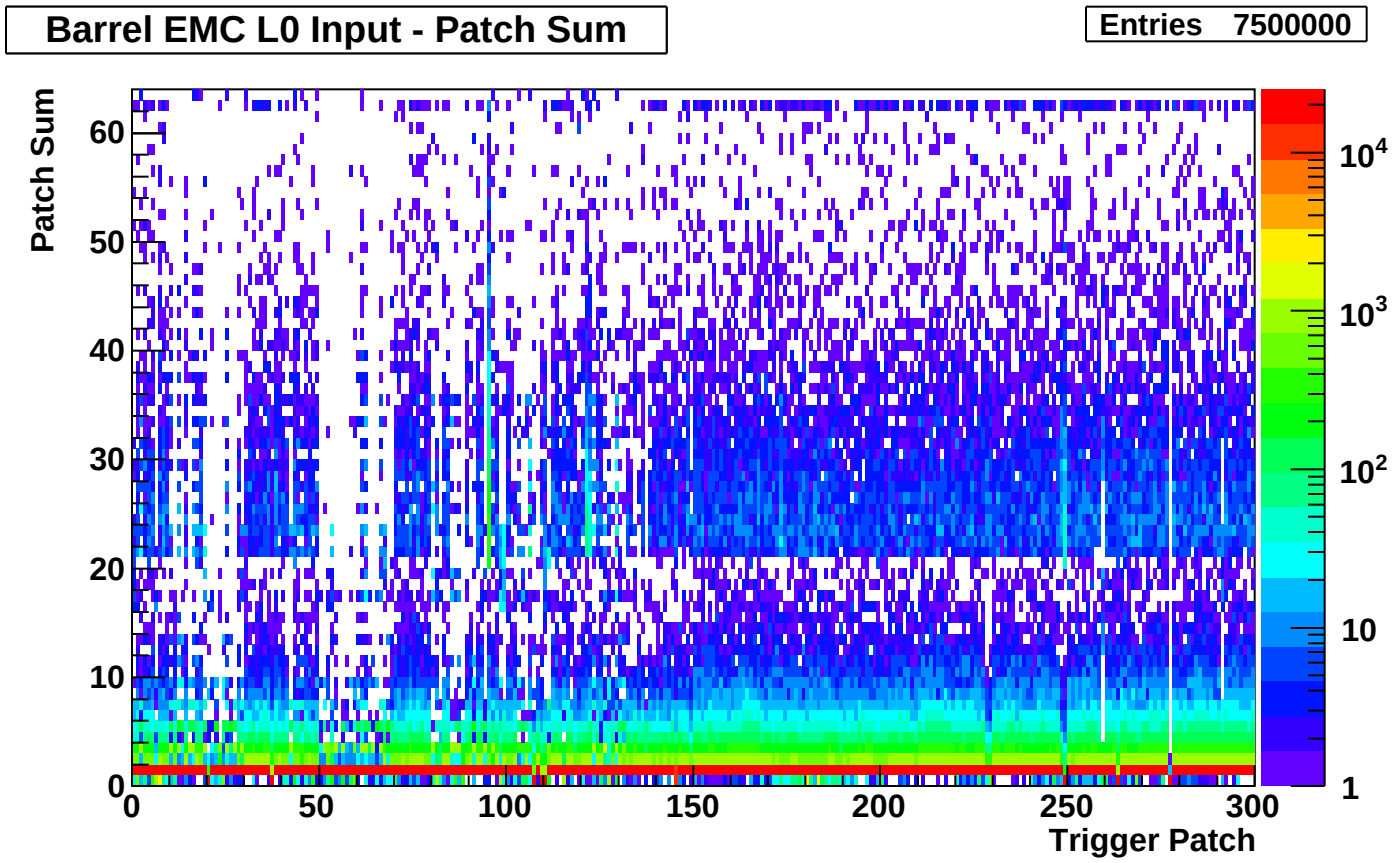
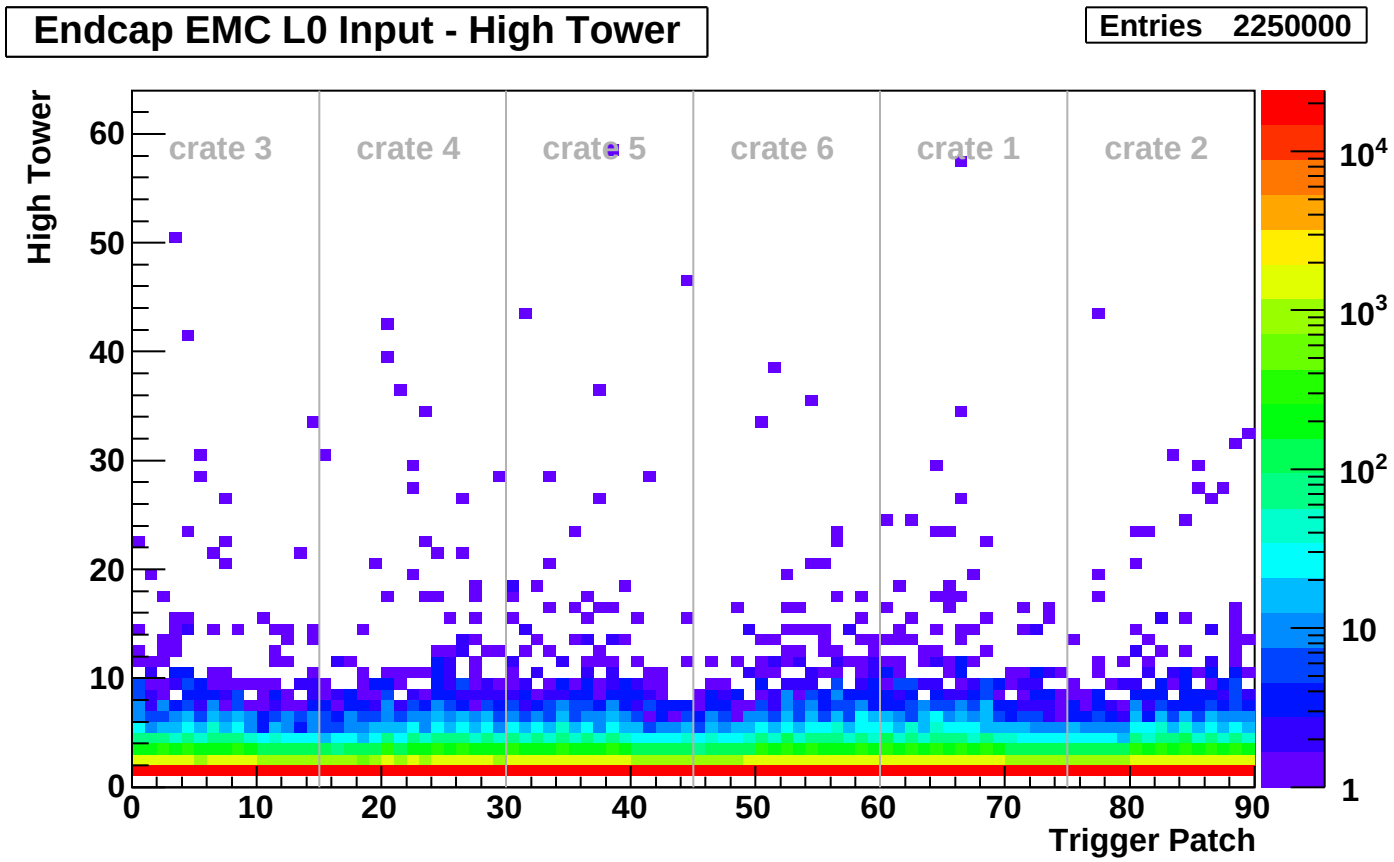
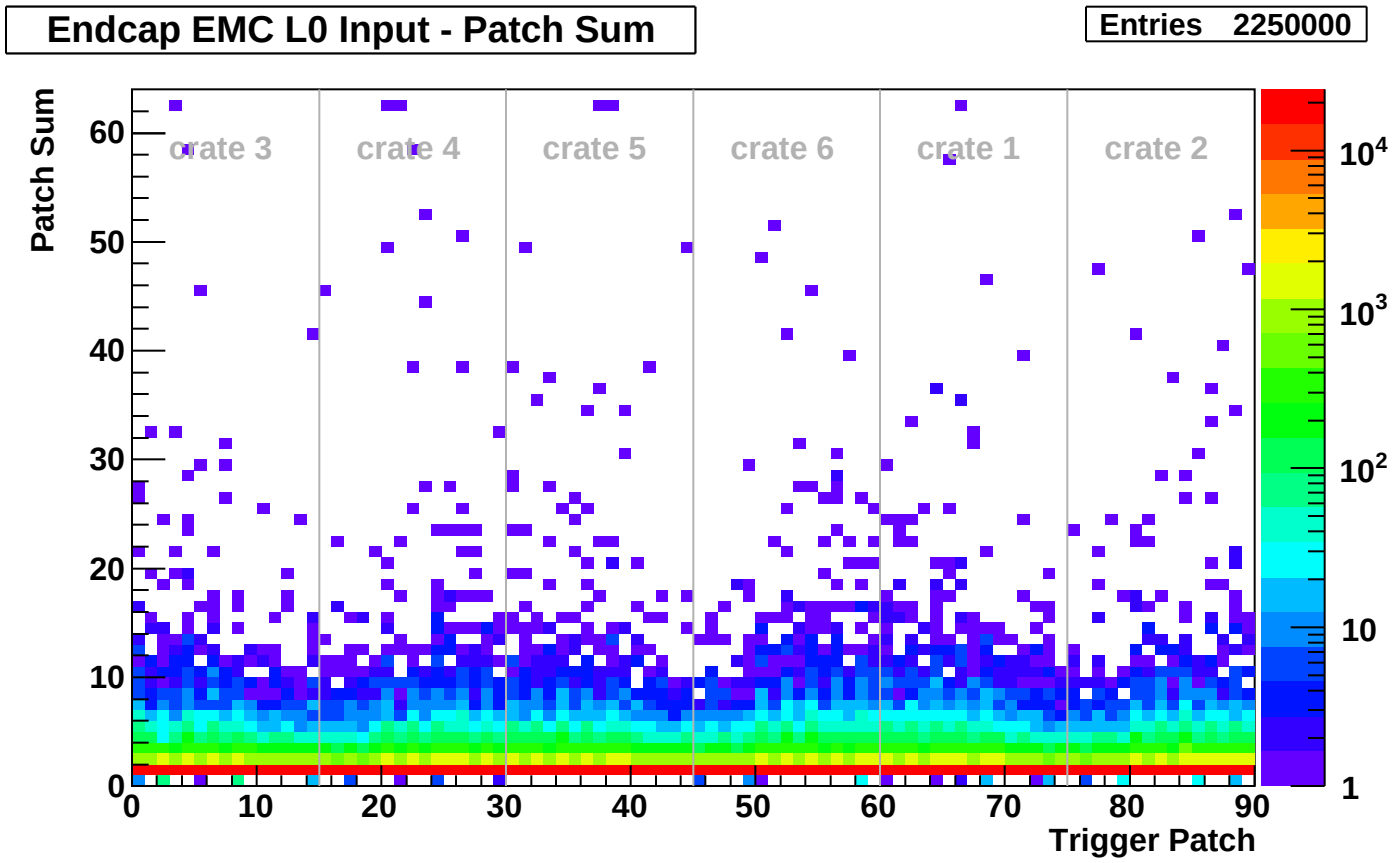
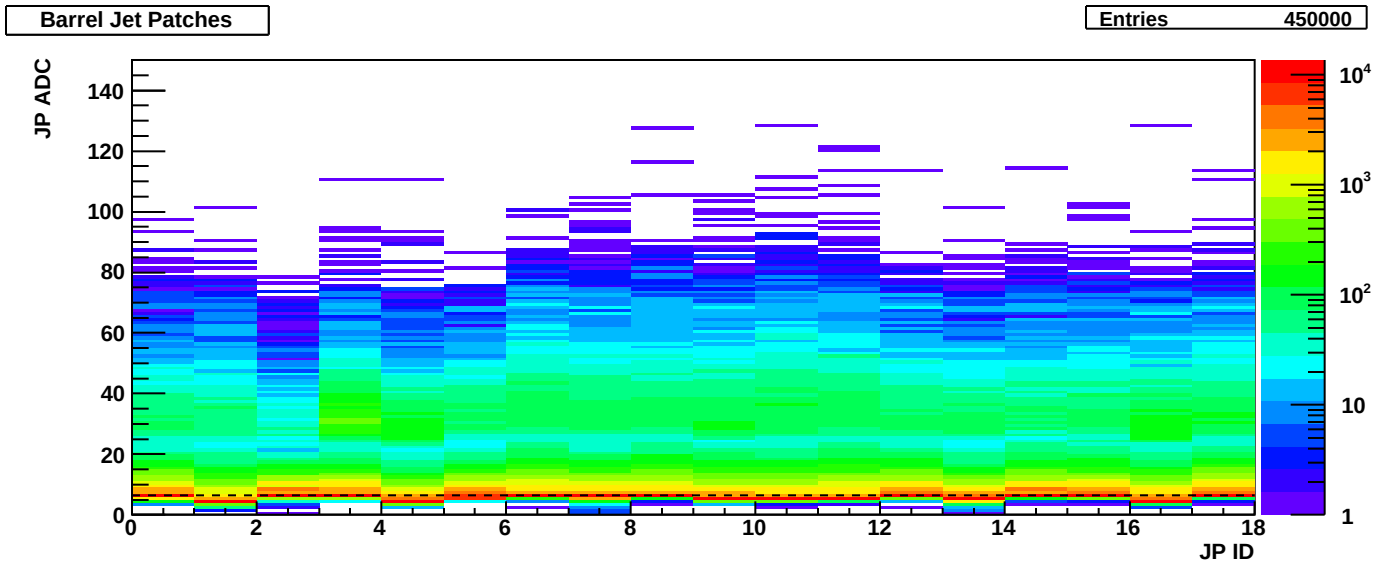
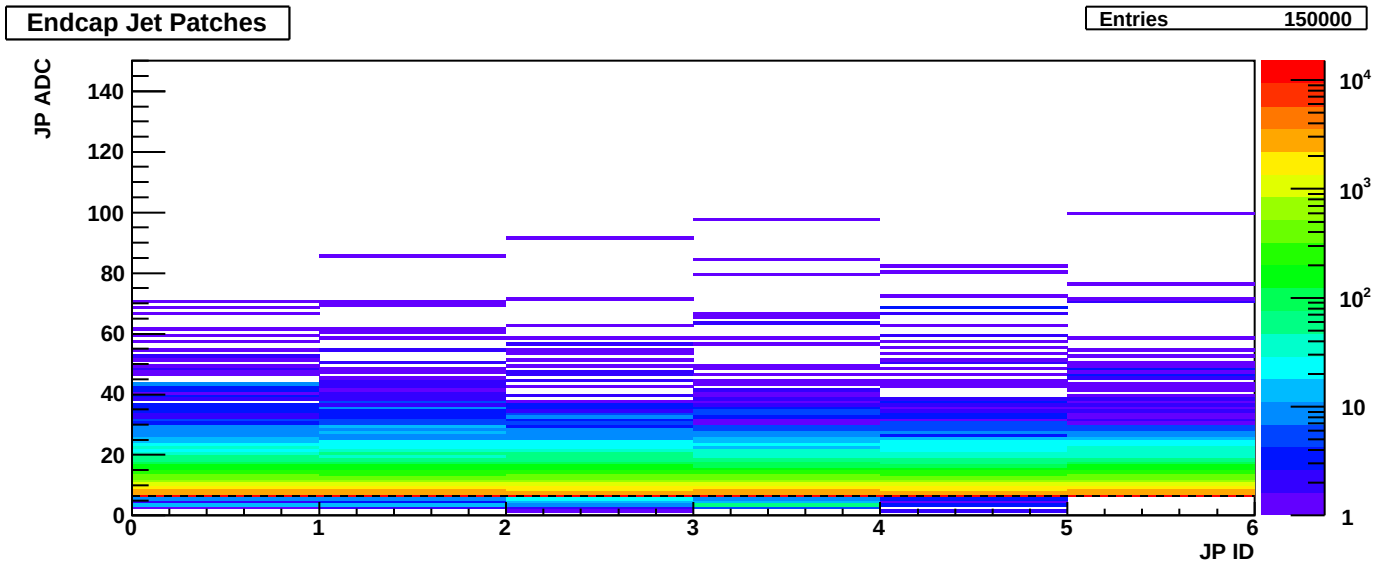

Barrel EMC L0 Input - High Tower
Entries 7500000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

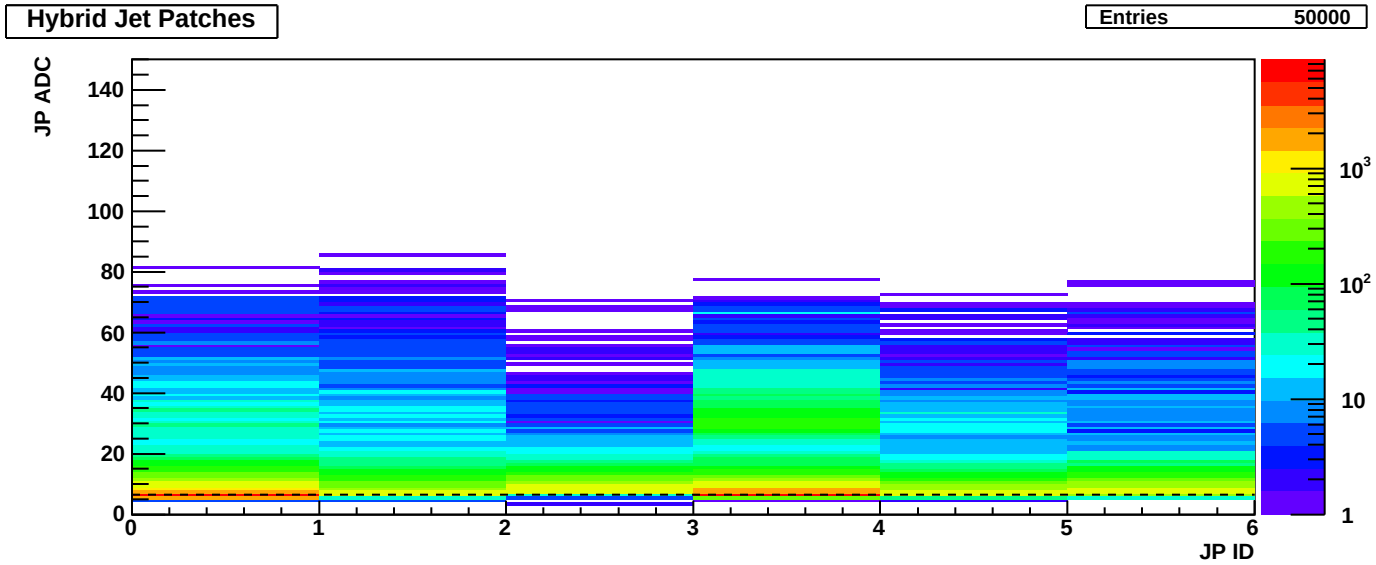

Barrel EMC L0 Input - Patch Sum
Entries 7500000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

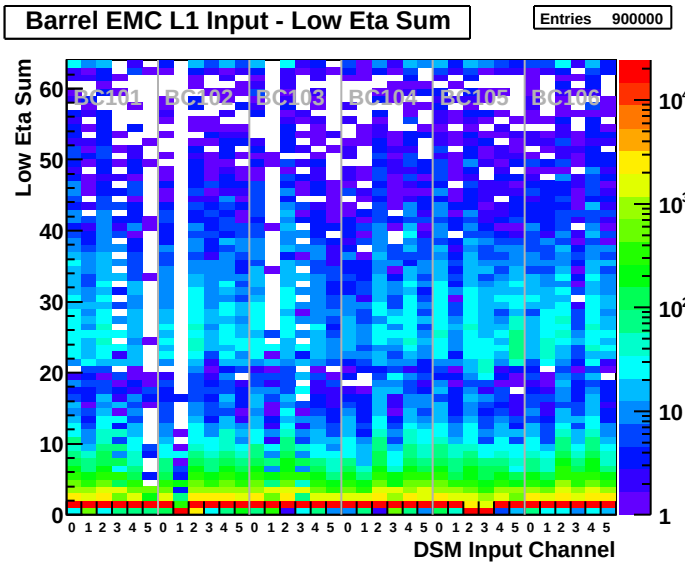

Endcap EMC L0 Input - High Tower
Entries 2250000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

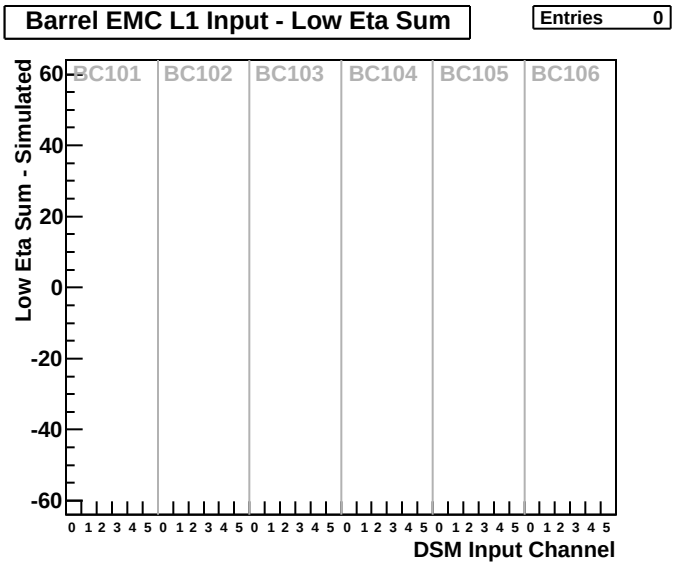

Endcap EMC L0 Input - Patch Sum
Entries 2250000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

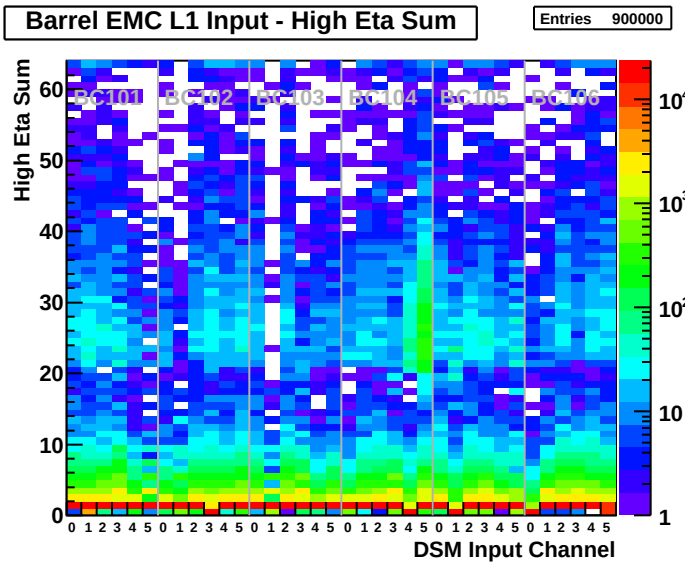

Barrel Jet Patches
Entries 450000
JP ADC
JP ID

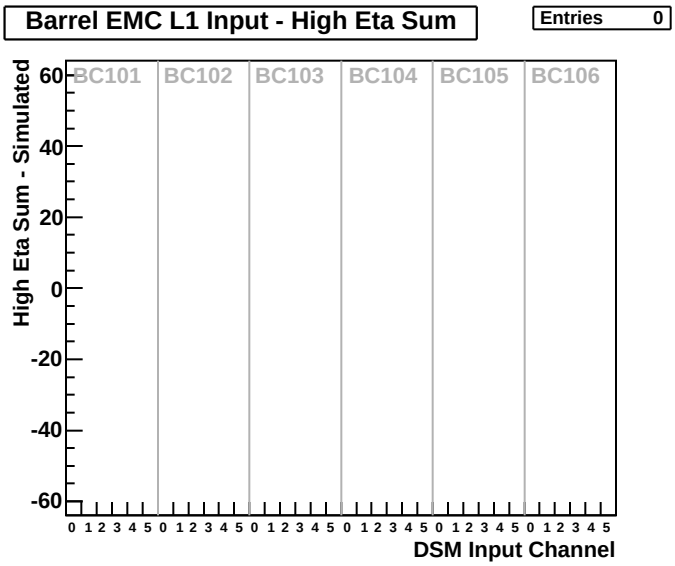

Endcap Jet Patches
Entries 150000
JP ADC
JP ID

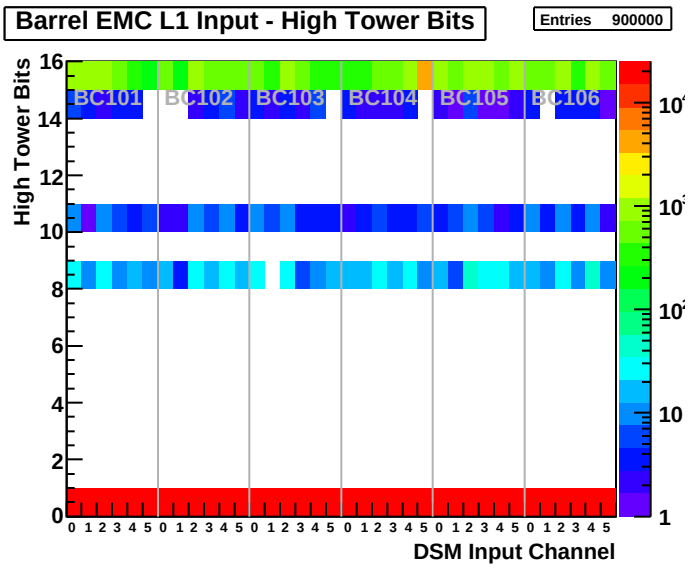

Hybrid Jet Patches
Entries 50000
JP ADC
JP ID

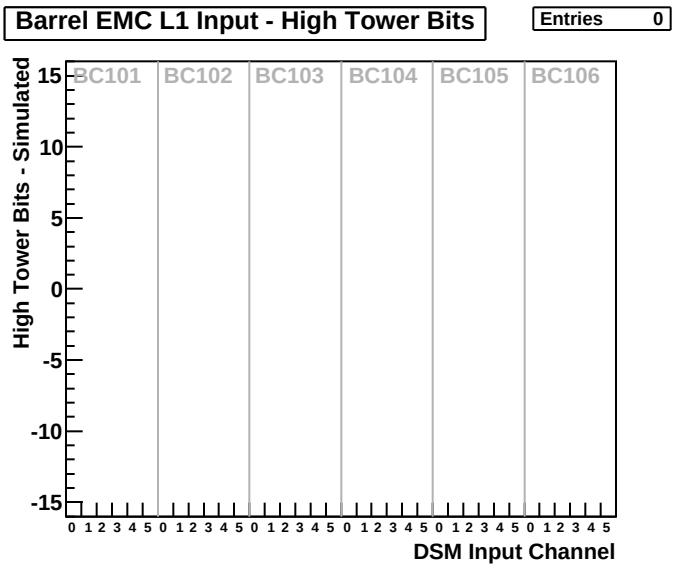

Barrel EMC L1 Input - Low Eta Sum
Entries 900000
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

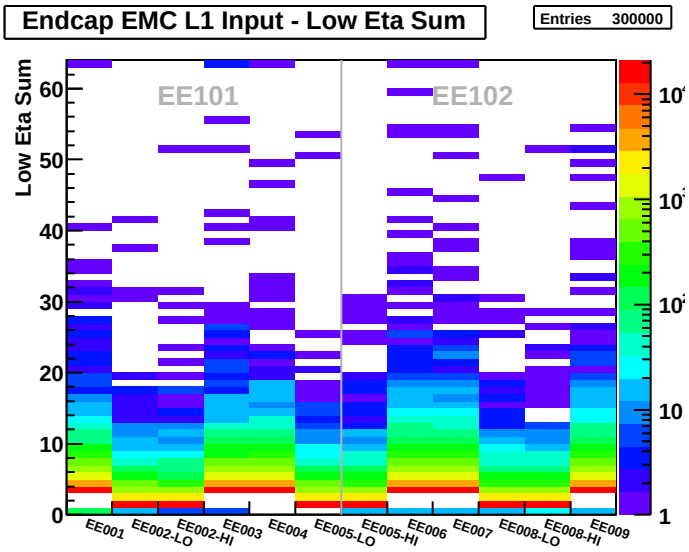

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

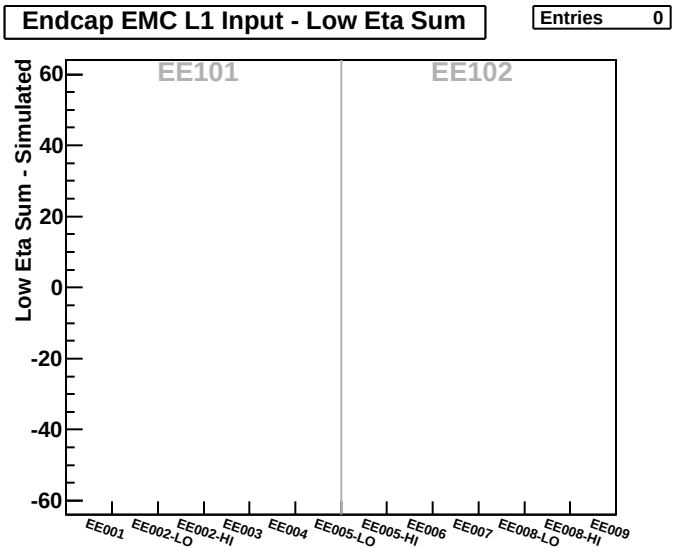

Barrel EMC L1 Input - High Eta Sum
Entries 900000
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

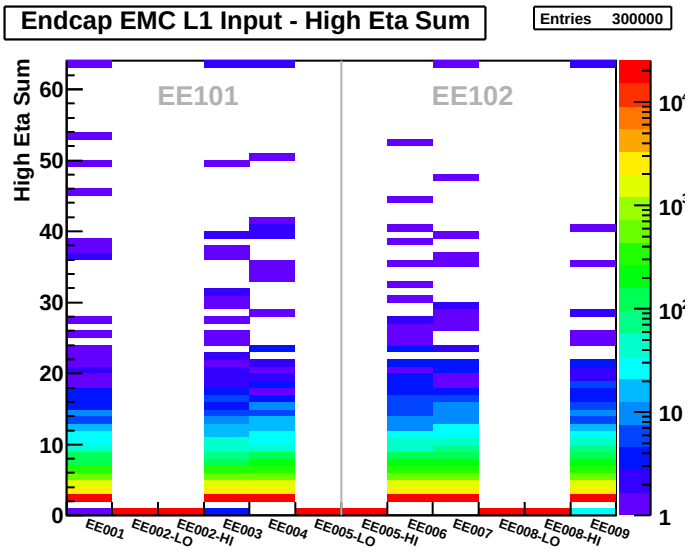

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

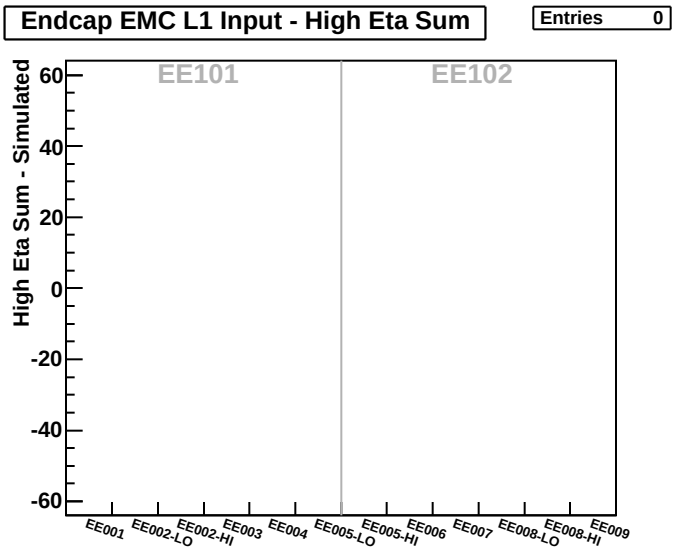

Barrel EMC L1 Input - High Tower Bits
Entries 900000
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

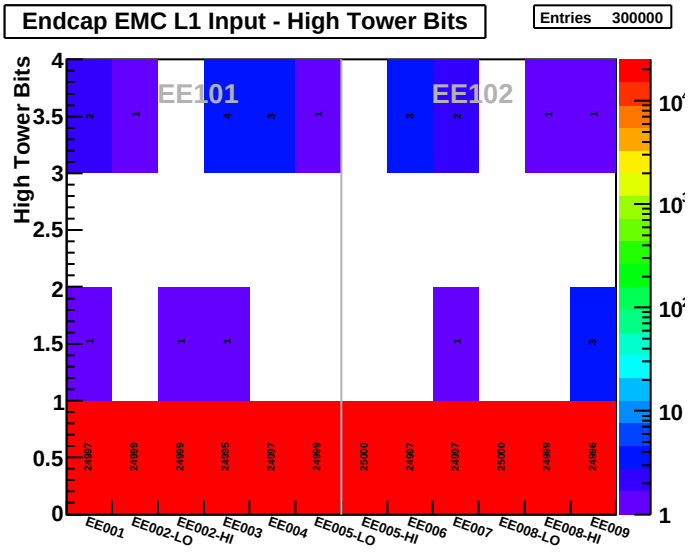

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

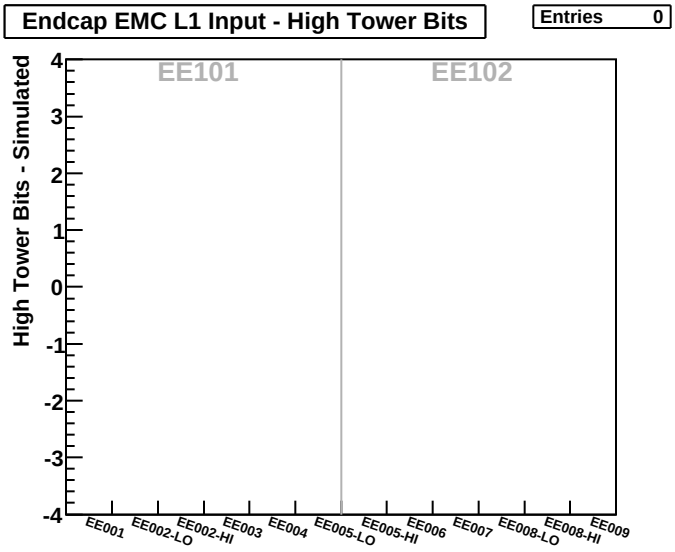

Endcap EMC L1 Input - Low Eta Sum
Entries 300000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

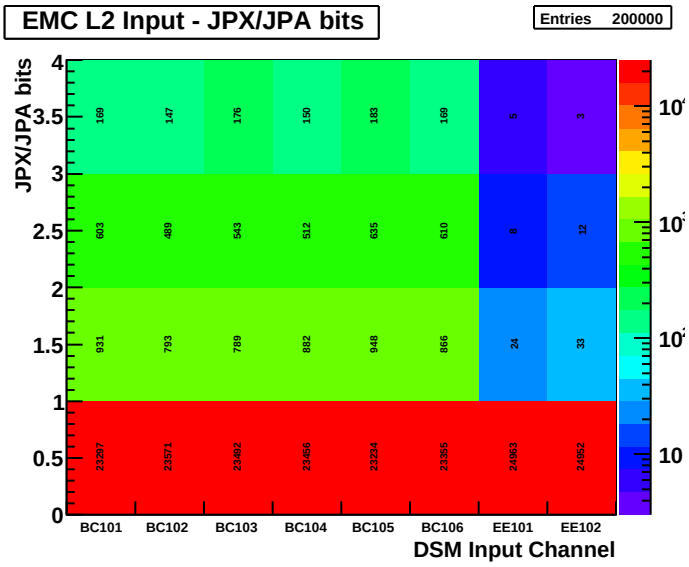

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

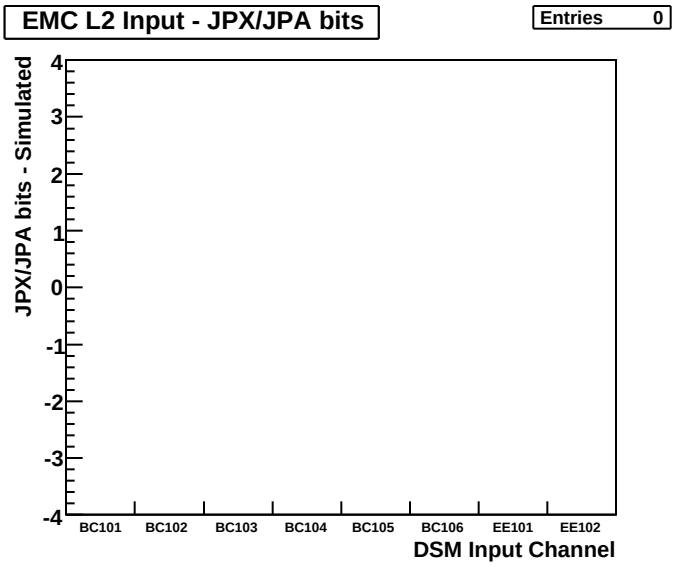

Endcap EMC L1 Input - High Eta Sum
Entries 300000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

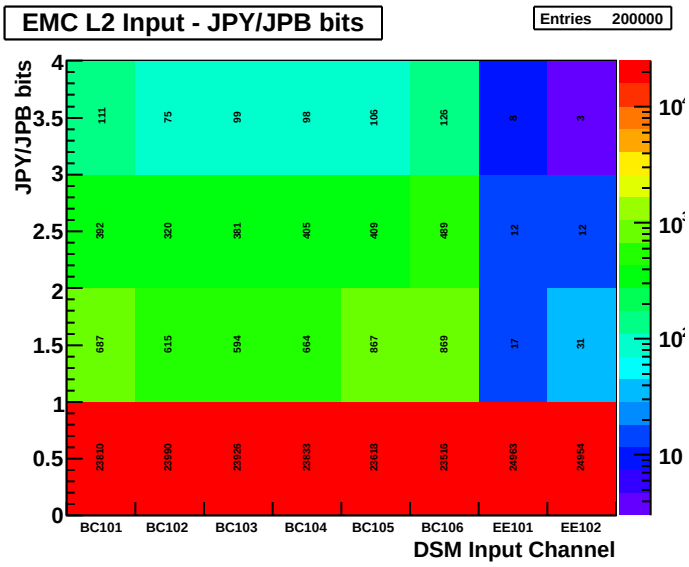

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

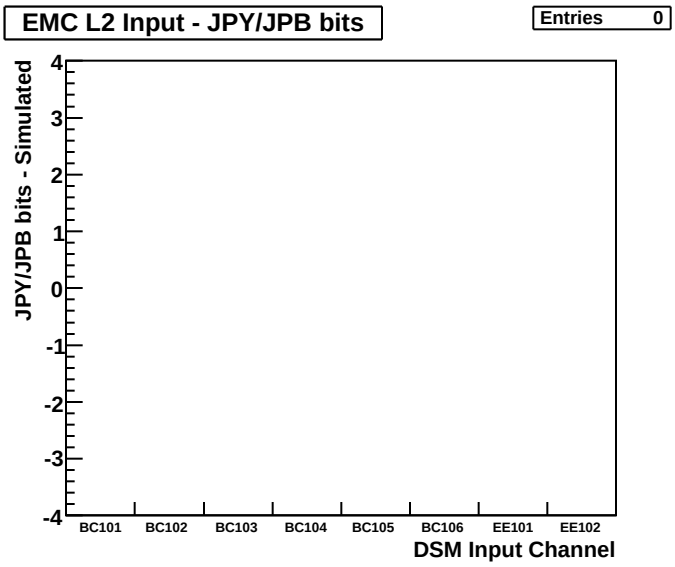

Endcap EMC L1 Input - High Tower Bits
Entries 300000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

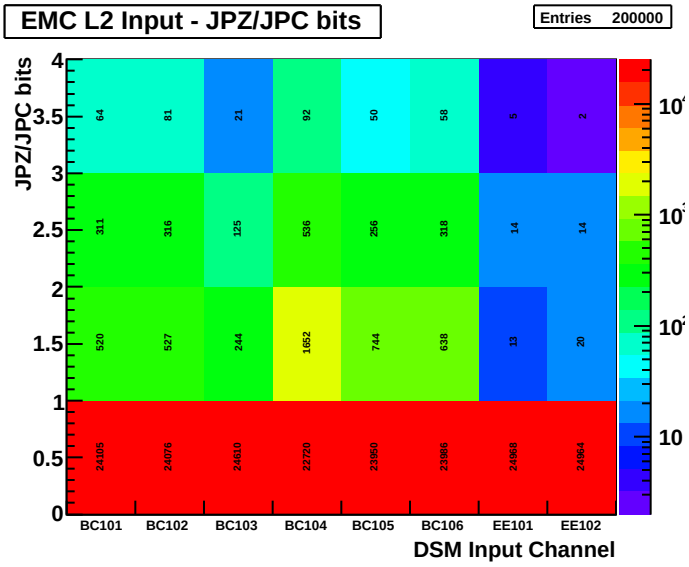

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

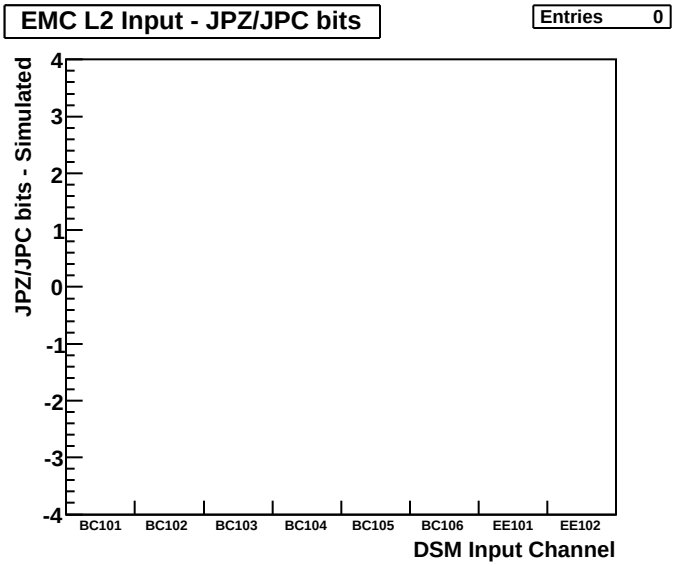

EMC L2 Input - JPX/JPA bits
Entries 200000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
169 147 176 150 183 169 5 3
603 489 543 512 635 610 8 12
931 793 789 882 948 866 24 33
23297 23571 23492 23456 23234 23355 24963 24952

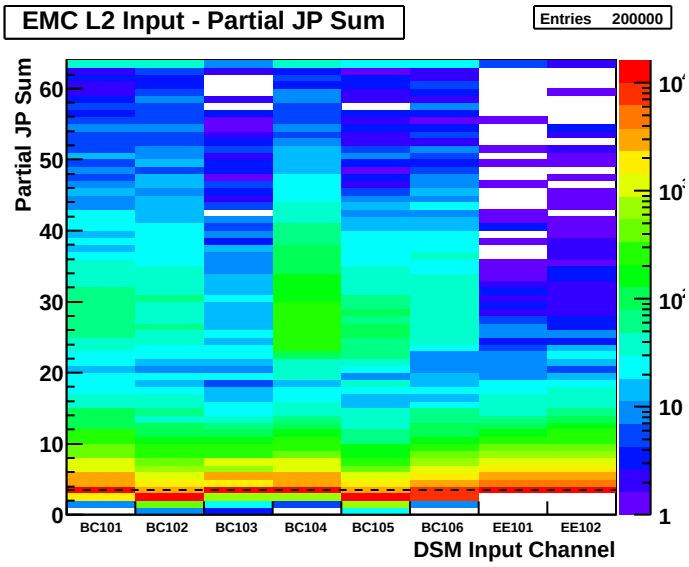

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

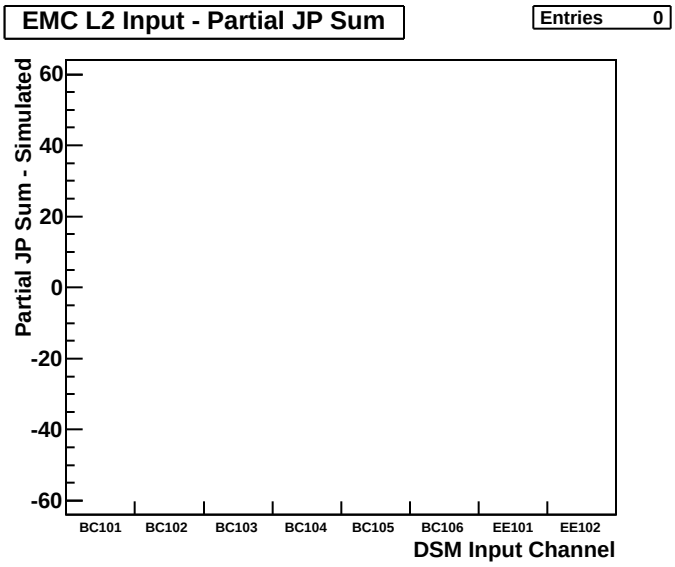

EMC L2 Input - JPY/JPB bits
Entries 200000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
111 75 99 98 106 126 8 3
382 320 381 405 409 489 12 12
687 615 594 664 867 869 17 31
23810 23990 23926 23833 23618 23516 24963 24954

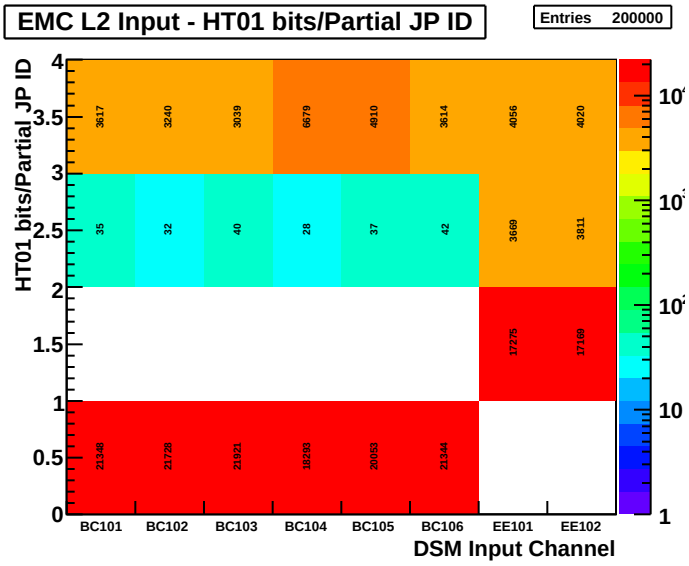

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

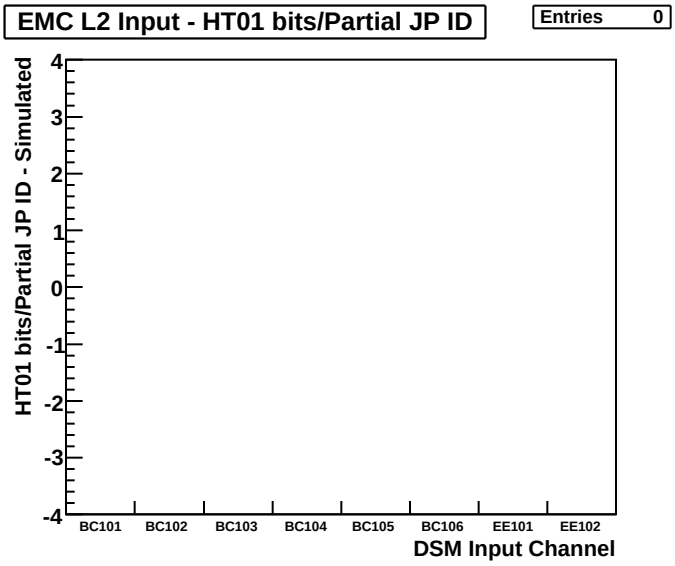

EMC L2 Input - JPZ/JPC bits
Entries 200000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
64 81 21 92 50 58 5 2
311 316 125 536 256 318 14 14
520 527 244 1652 744 638 13 20
24105 24076 24610 22720 23950 23986 24968 24964

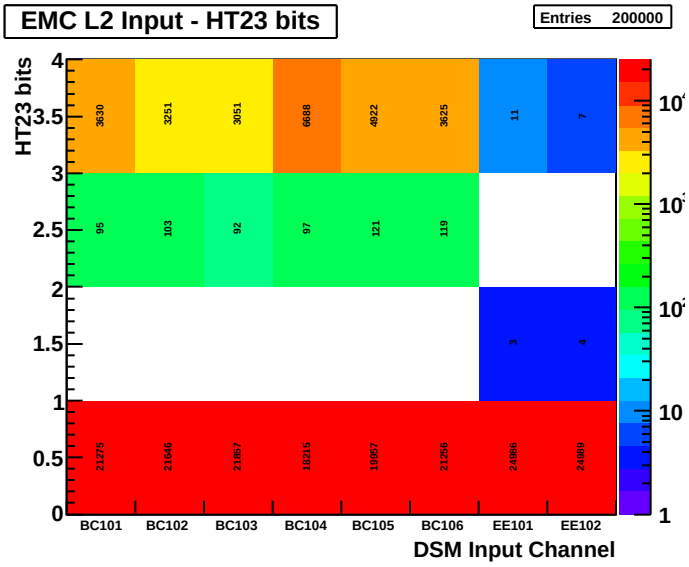

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

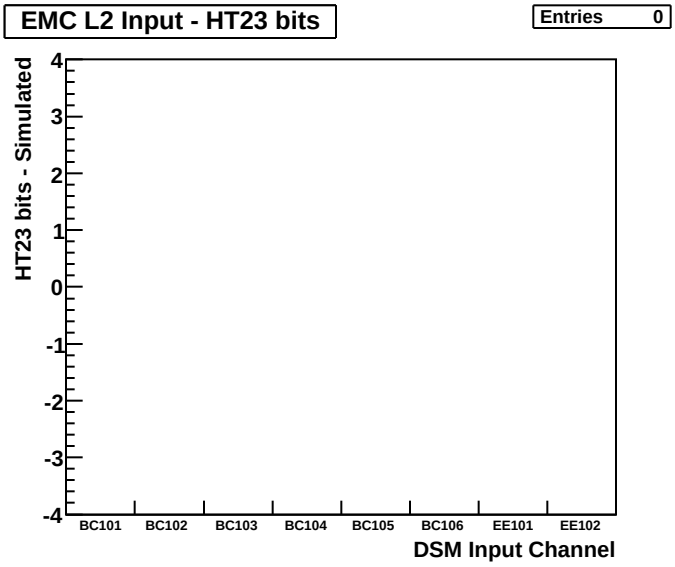

EMC L2 Input - Partial JP Sum
Entries 200000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

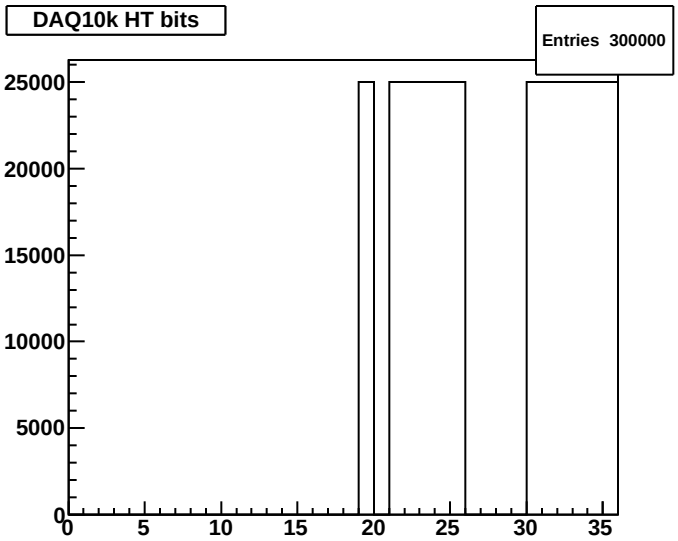

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

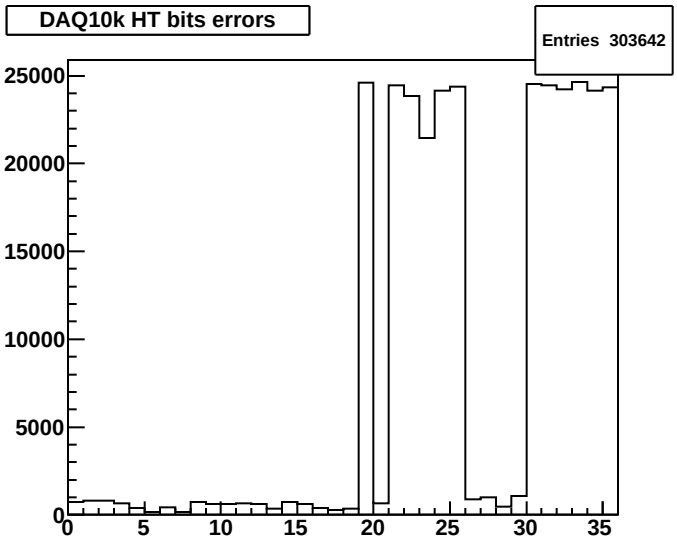

EMC L2 Input - HT01 bits/Partial JP ID
Entries 200000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

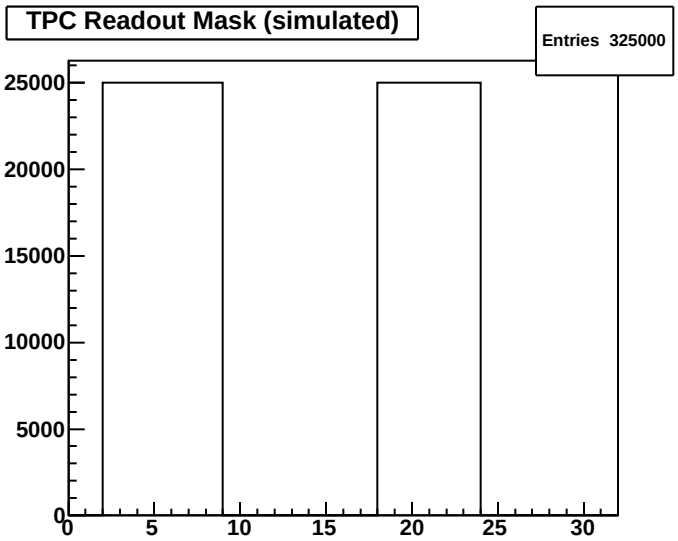

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

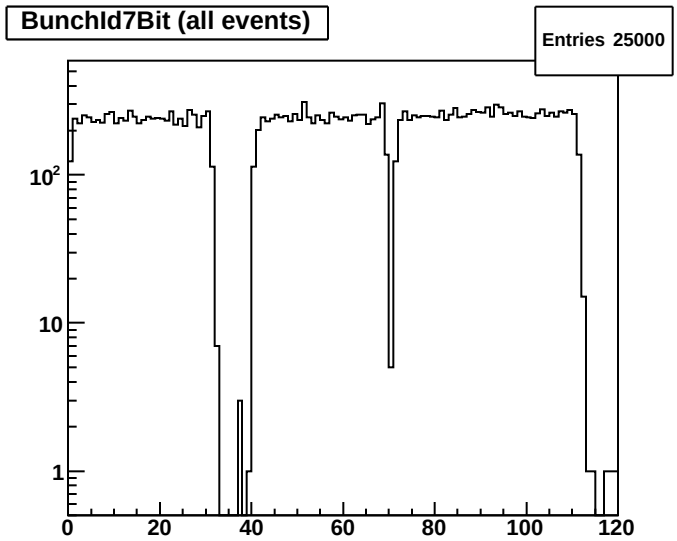

EMC L2 Input - HT23 bits
Entries 200000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

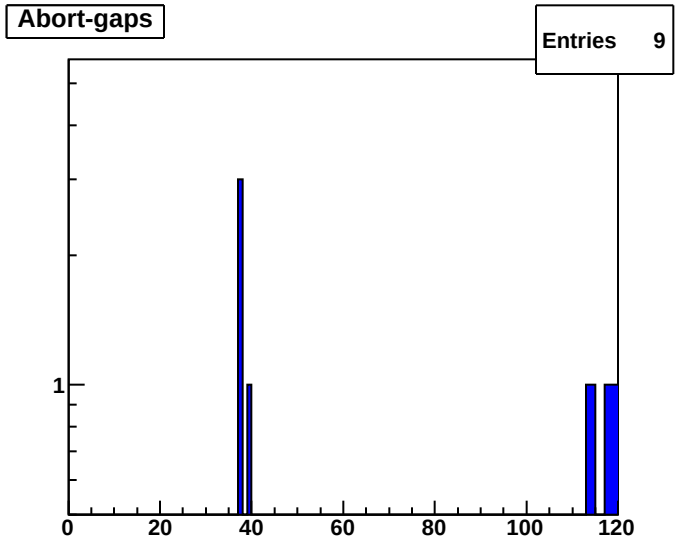

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

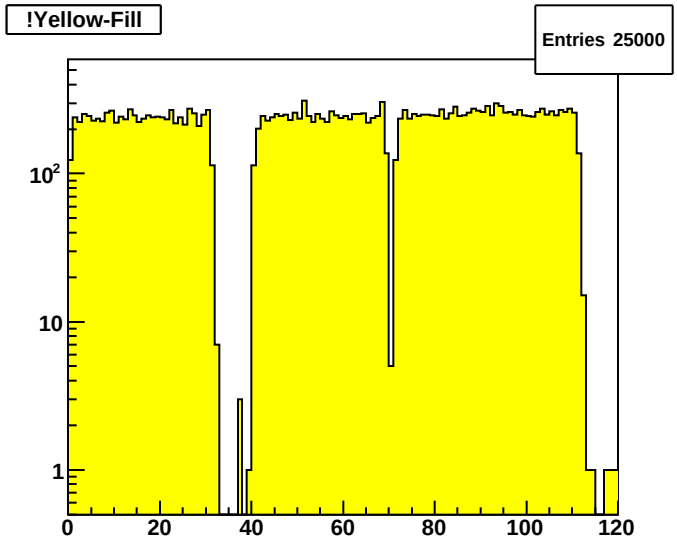

DAQ10k HT bits
Entries 300000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

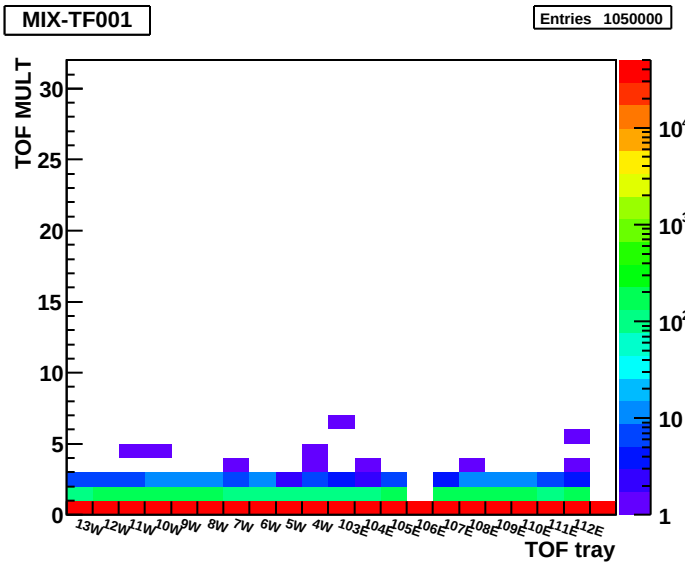

DAQ10k HT bits errors
Entries 303642
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

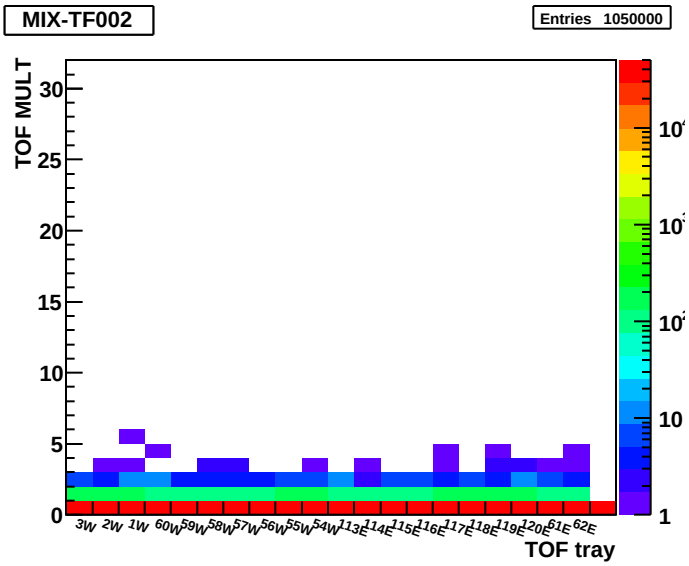

TPC Readout Mask (simulated)
Entries 325000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

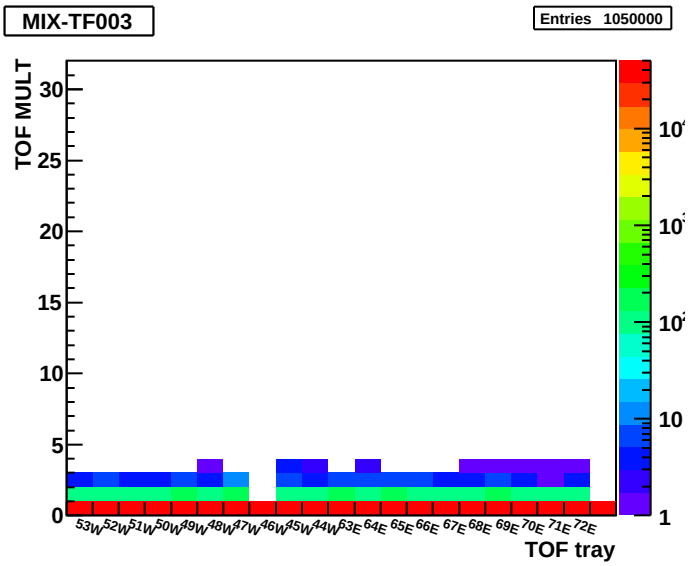

BunchId7Bit (all events)
Entries 25000
10^2
10
1
0 20 40 60 80 100 120

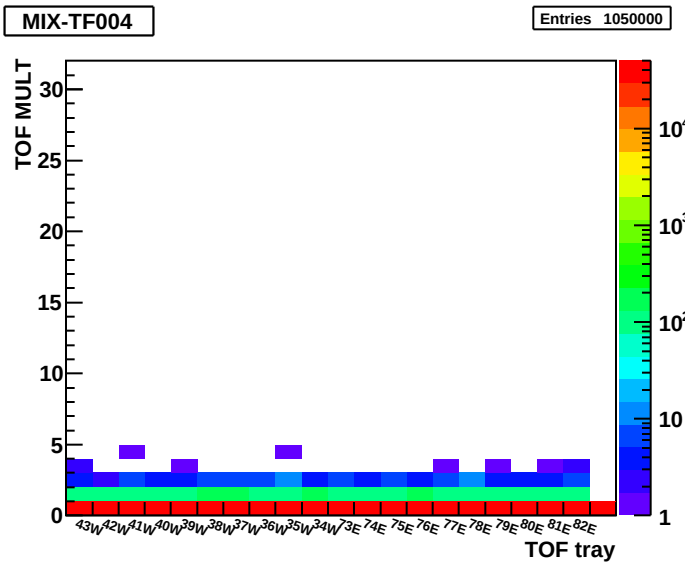

Abort-gaps
Entries 9
1
0 20 40 60 80 100 120

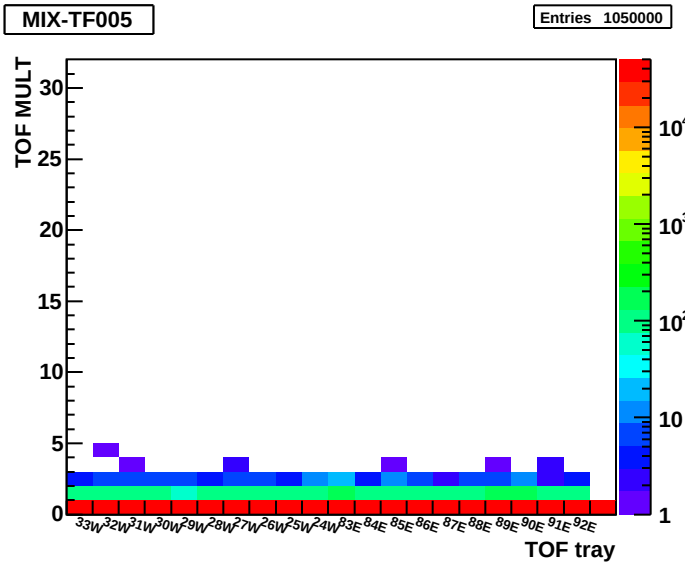

!Yellow-Fill
Entries 25000
10^2
10
1
0 20 40 60 80 100 120

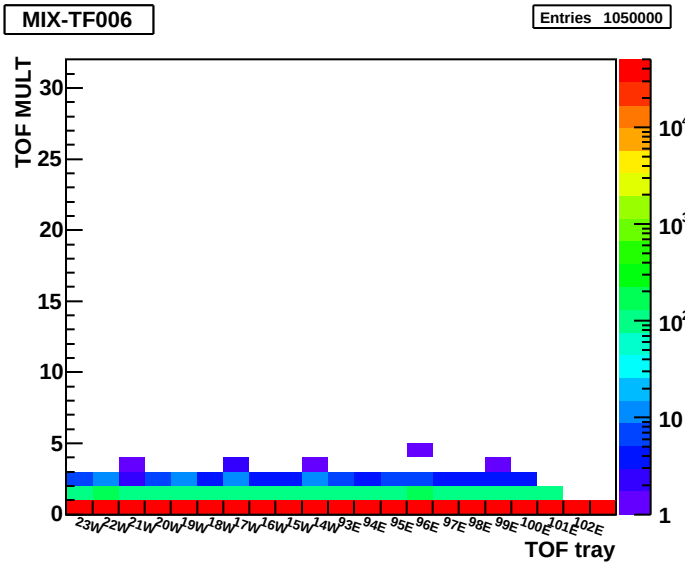

MIX-TF001
Entries 1050000
TOF MULT
TOF tray

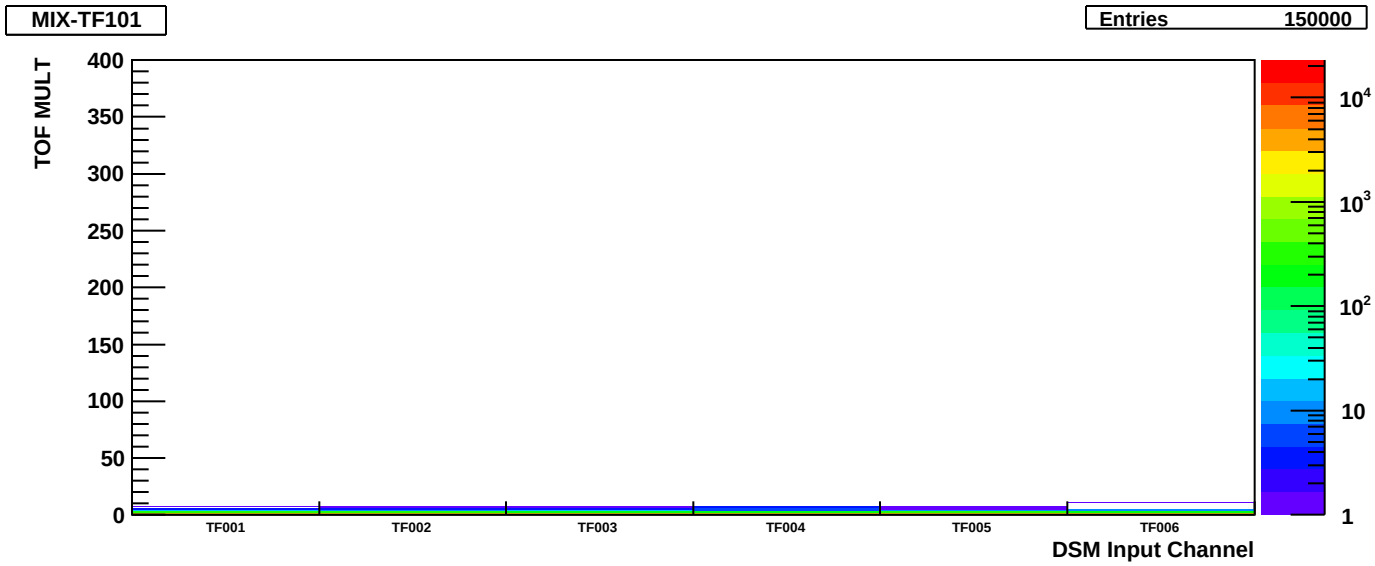

MIX-TF002
Entries 1050000
TOF MULT
TOF tray

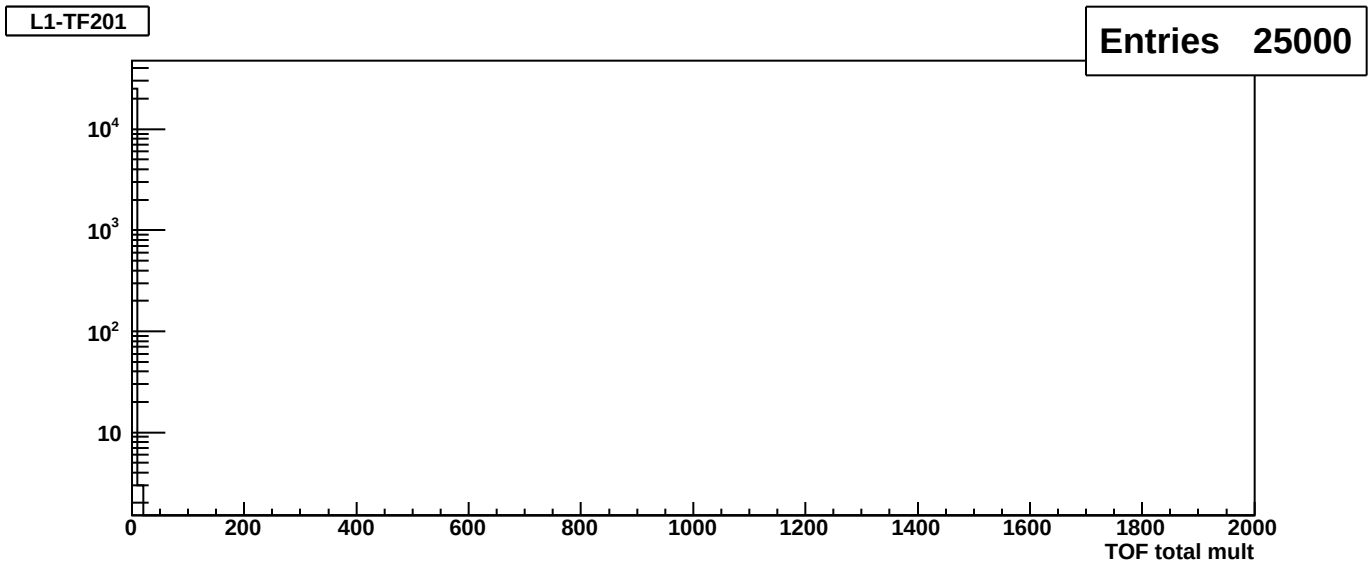

MIX-TF003
Entries 1050000
TOF MULT
TOF tray

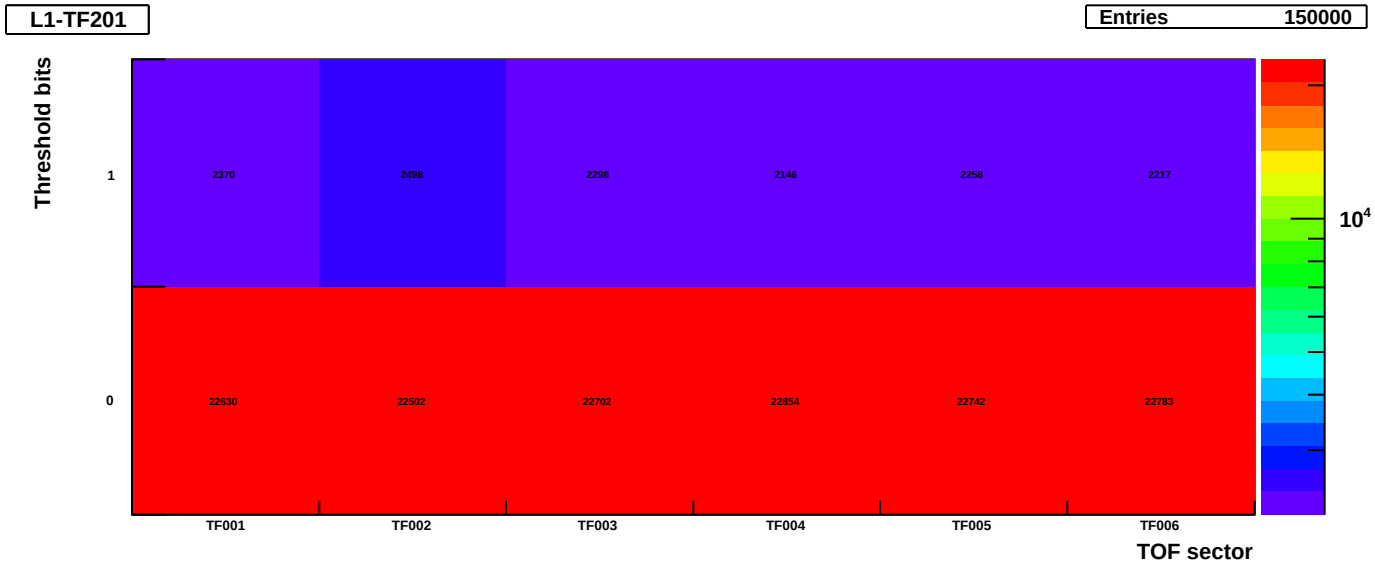

MIX-TF004
Entries 1050000
TOF MULT
TOF tray

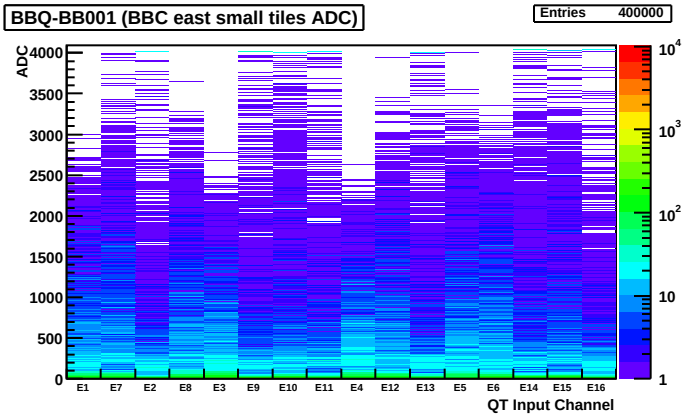

MIX-TF005
Entries 1050000
TOF MULT
TOF tray

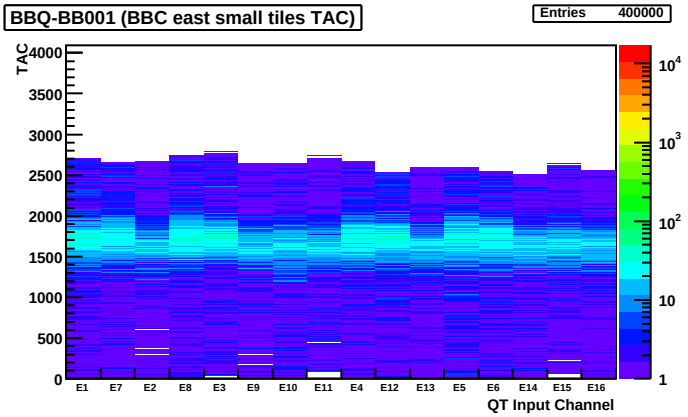

MIX-TF006
Entries 1050000
TOF MULT
TOF tray

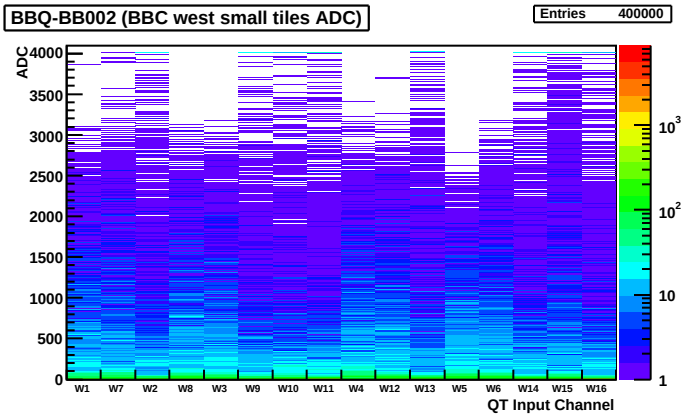

MIX-TF101
Entries 150000
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

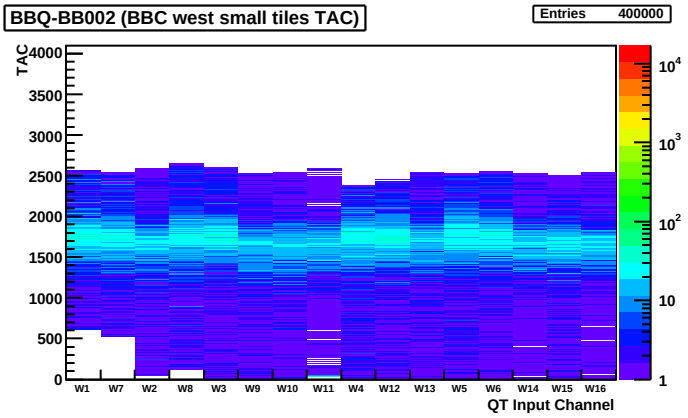

L1-TF201
Entries 25000
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

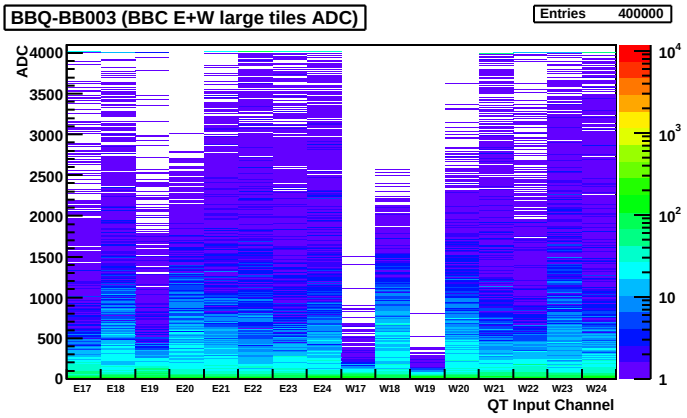

L1-TF201
Entries 150000
Threshold bits
1
0
2370
2498
2298
2146
2258
2217
22630
22502
22702
22854
22742
22783
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

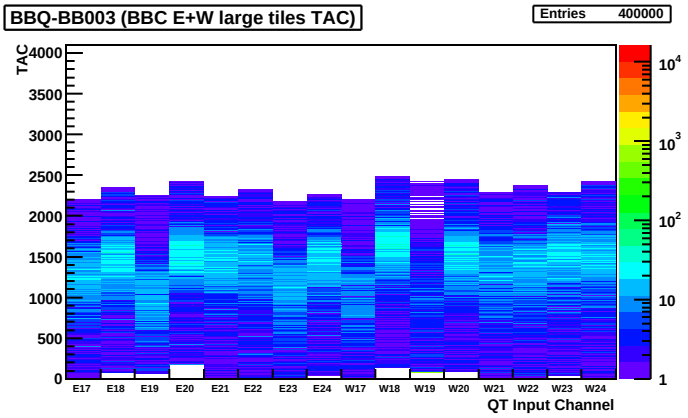

BBQ-BB001 (BBC east small tiles ADC)
Entries 400000
ADC
QT Input Channel

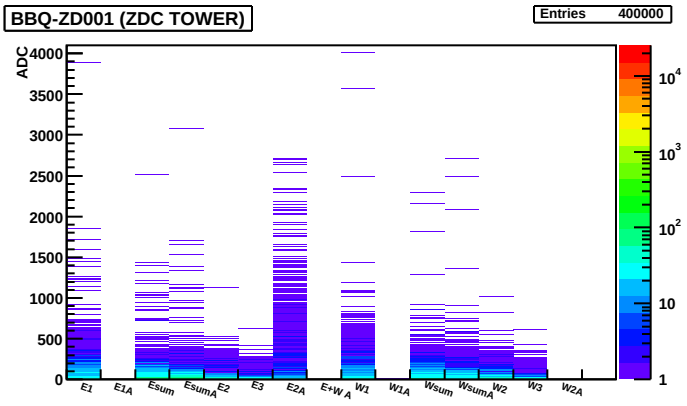

BBQ-BB001 (BBC east small tiles TAC)
Entries 400000
TAC
QT Input Channel

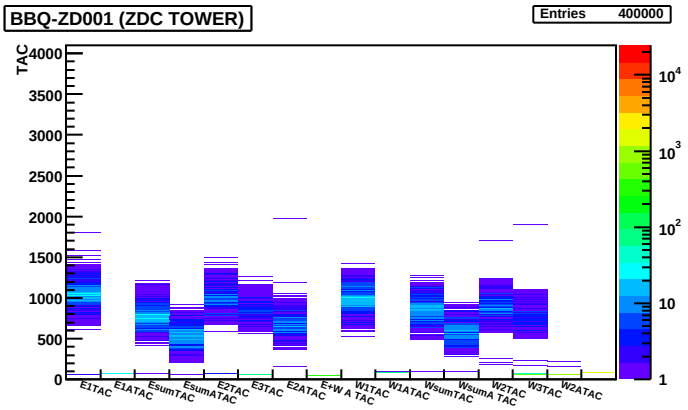

BBQ-BB002 (BBC west small tiles ADC)
Entries 400000
ADC
QT Input Channel

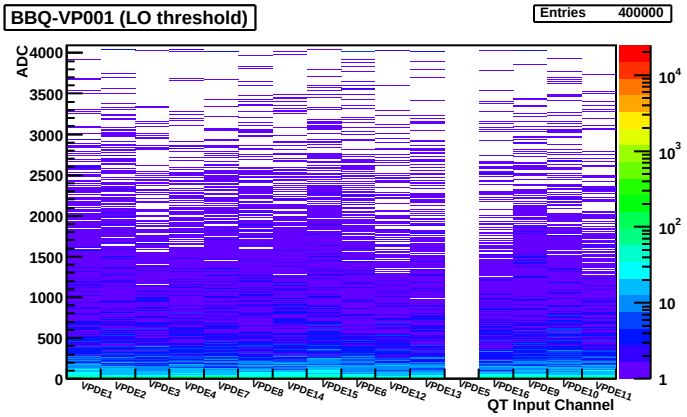

BBQ-BB002 (BBC west small tiles TAC)
Entries 400000
TAC
QT Input Channel

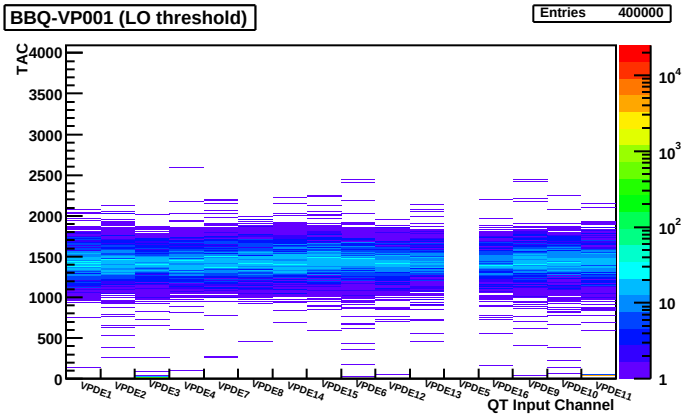

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 400000
ADC
QT Input Channel

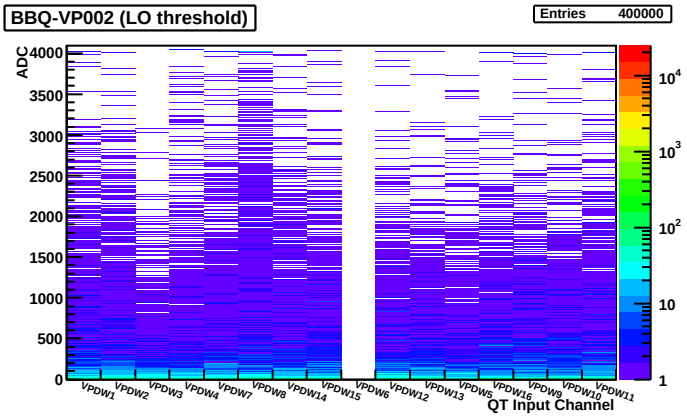

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 400000
TAC
QT Input Channel

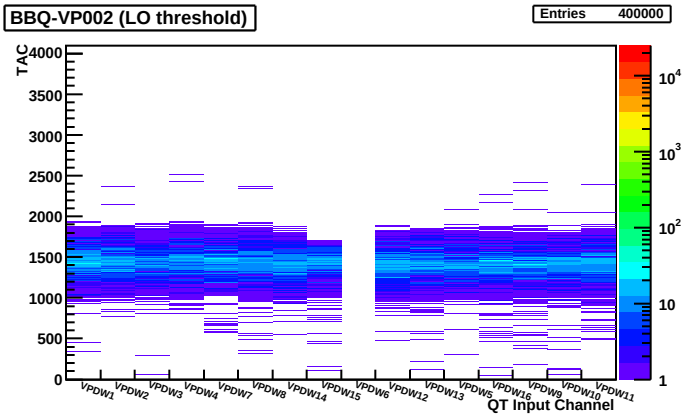

BBQ-ZD001 (ZDC TOWER)
Entries 400000
ADC

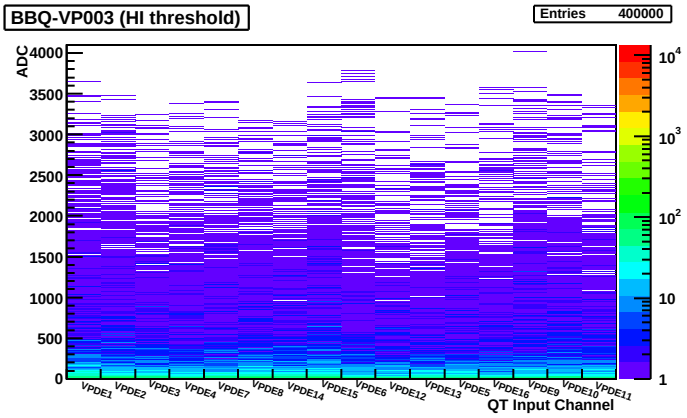

BBQ-ZD001 (ZDC TOWER)
Entries 400000
TAC

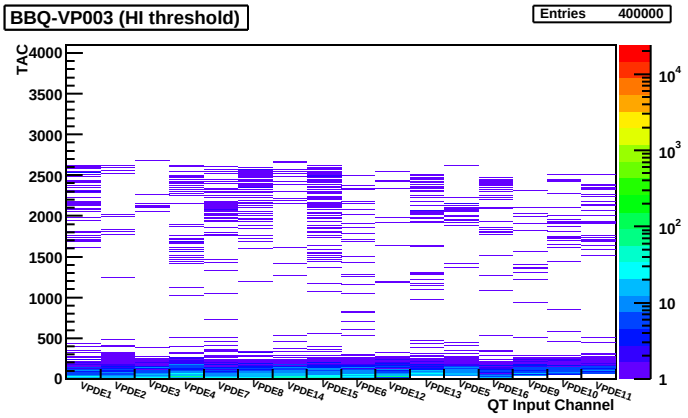

BBQ-VP001 (LO threshold)
Entries 400000
ADC
QT Input Channel

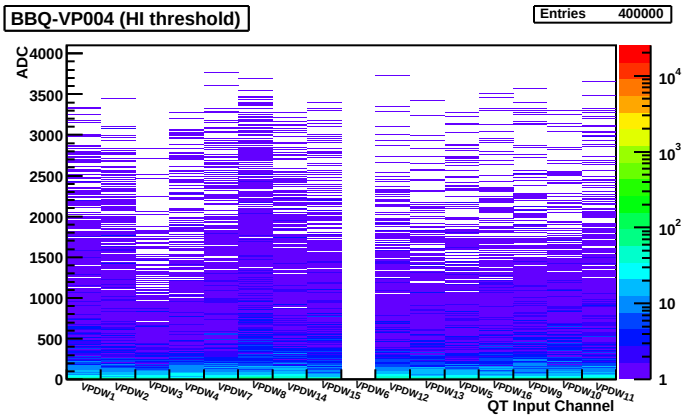

BBQ-VP001 (LO threshold)
Entries 400000
TAC
QT Input Channel

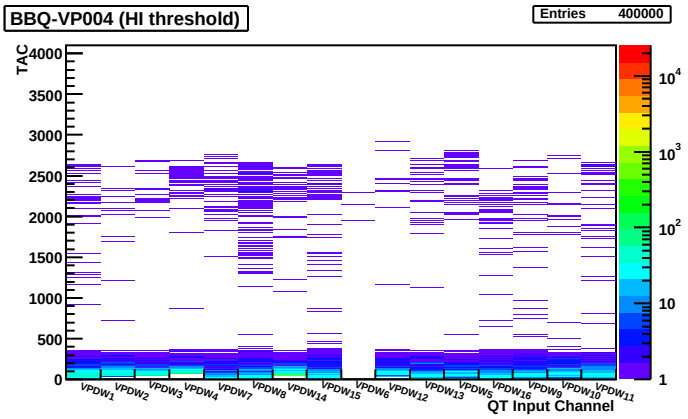

BBQ-VP002 (LO threshold)
Entries 400000
ADC
QT Input Channel

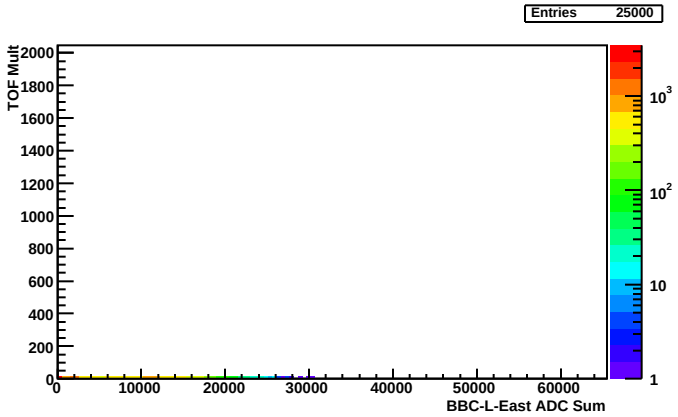

BBQ-VP002 (LO threshold)
Entries 400000
TAC
QT Input Channel

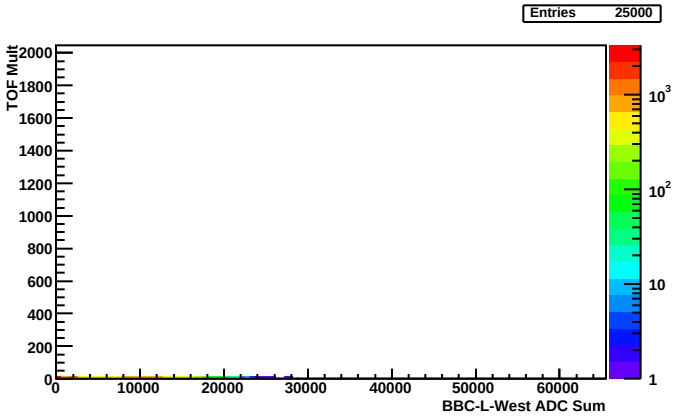

BBQ-VP003 (HI threshold)
Entries 400000
ADC
QT Input Channel

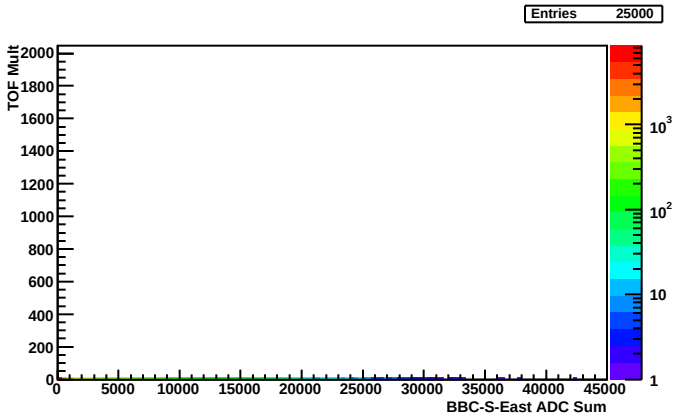

BBQ-VP003 (HI threshold)
Entries 400000
TAC
QT Input Channel

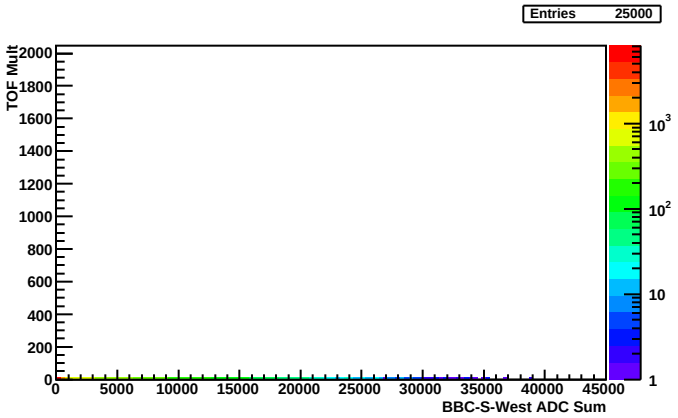

BBQ-VP004 (HI threshold)
Entries 400000
ADC
QT Input Channel

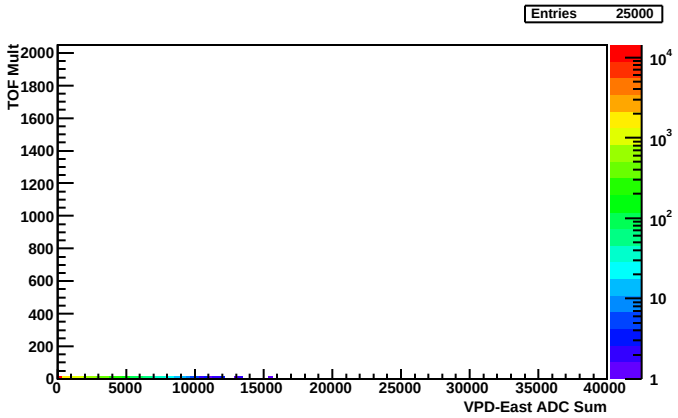

BBQ-VP004 (HI threshold)
Entries 400000
TAC
QT Input Channel

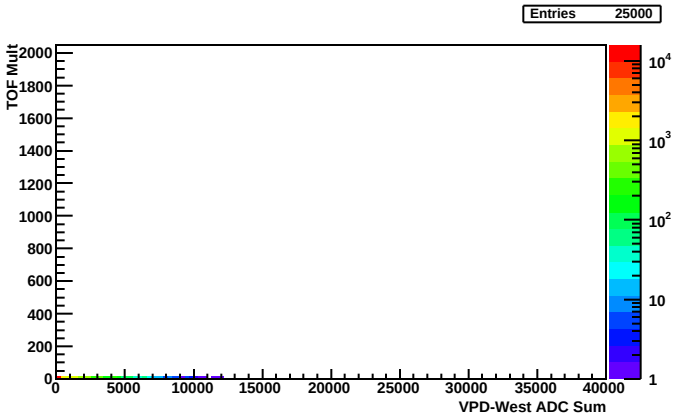

Entries 25000
TOF Mult
BBC-L-East ADC Sum

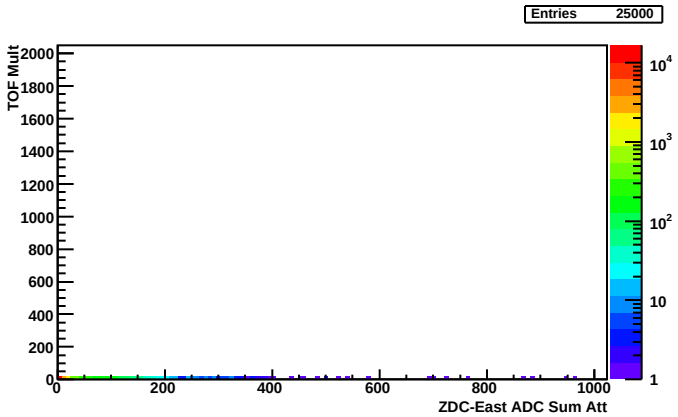

Entries 25000
TOF Mult
BBC-L-West ADC Sum

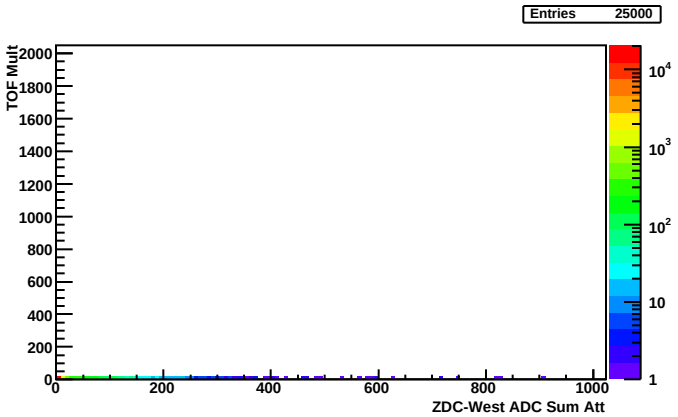

Entries 25000
TOF Mult
BBC-S-East ADC Sum

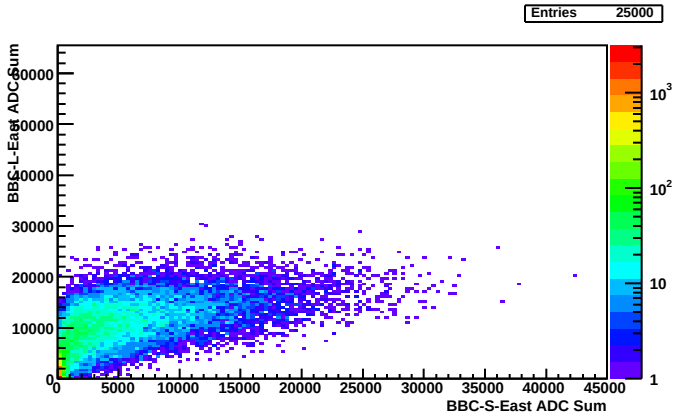

Entries 25000
TOF Mult
BBC-S-West ADC Sum

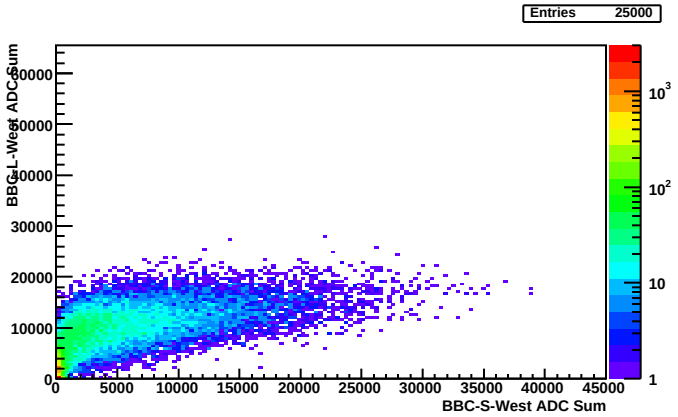

Entries 25000
TOF Mult
VPD-East ADC Sum

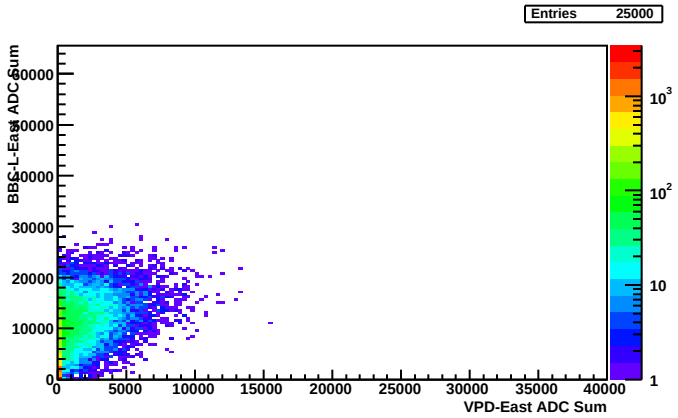

Entries 25000
TOF Mult
VPD-West ADC Sum

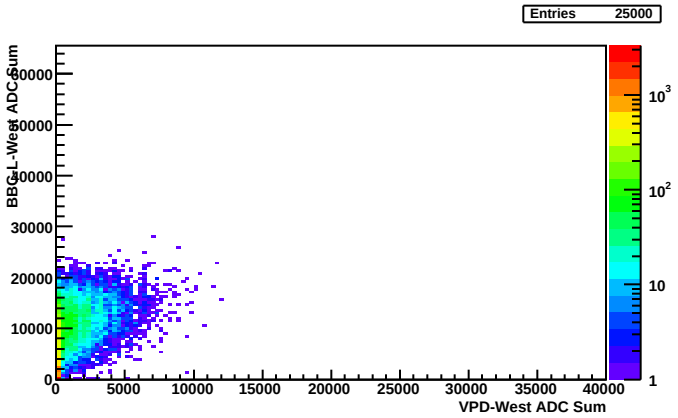

Entries 25000
TOF Mult
ZDC-East ADC Sum Att

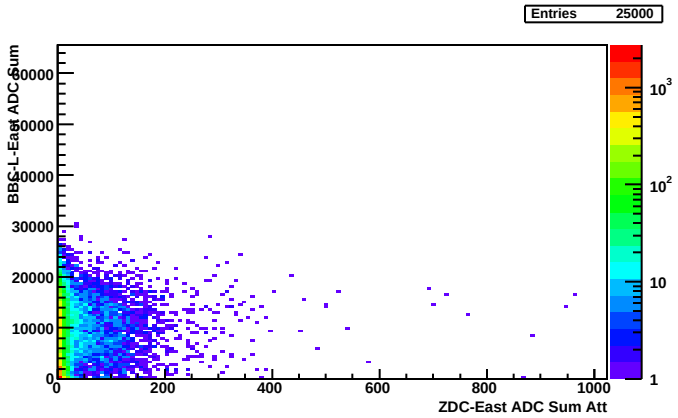

Entries 25000
TOF Mult
ZDC-West ADC Sum Att

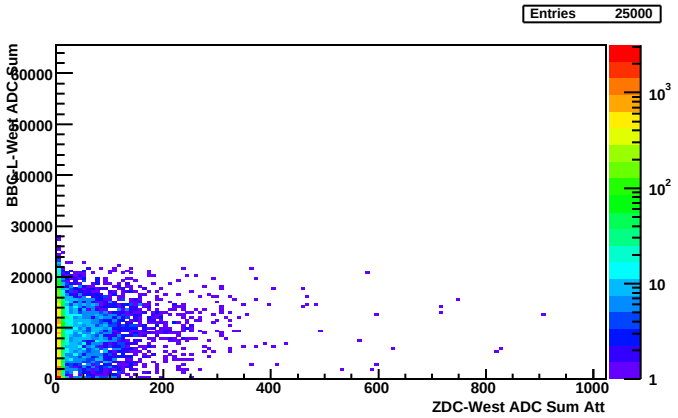

Entries 25000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

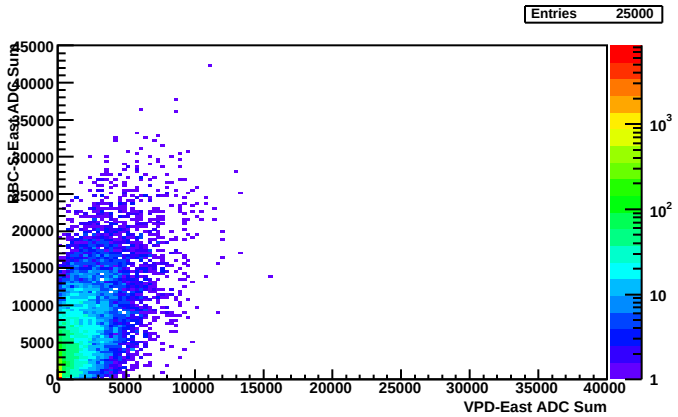

Entries 25000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

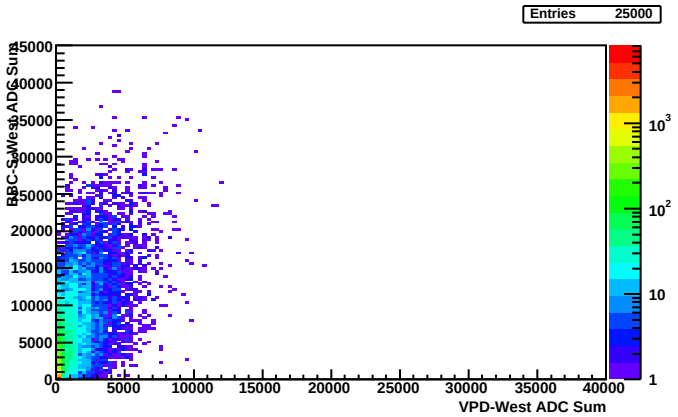

Entries 25000
BBC-L-East ADC Sum
VPD-East ADC Sum

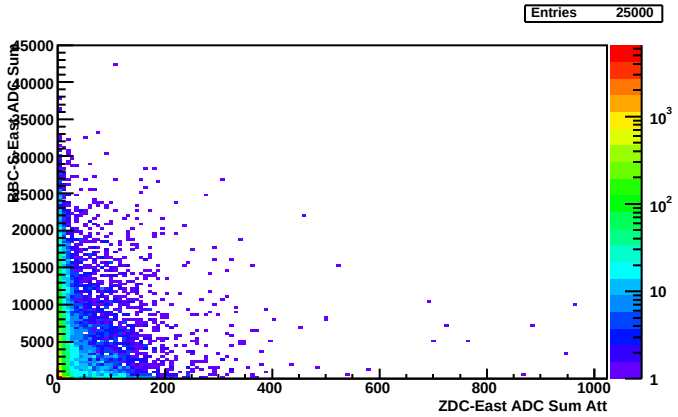

Entries 25000
BBC-L-West ADC Sum
VPD-West ADC Sum

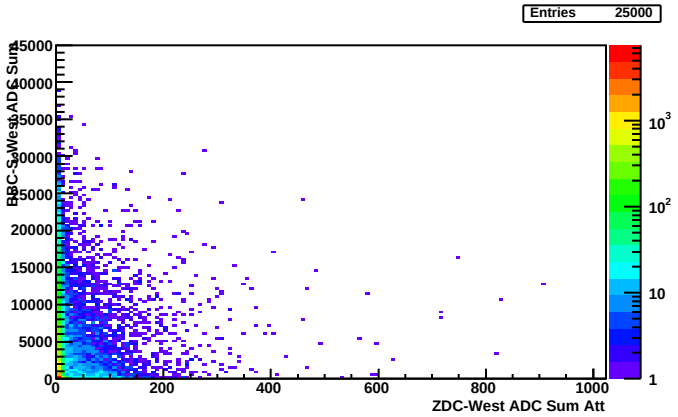

Entries 25000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

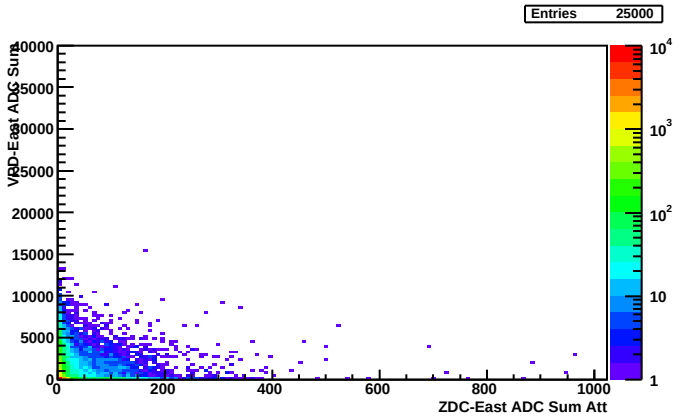

Entries 25000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

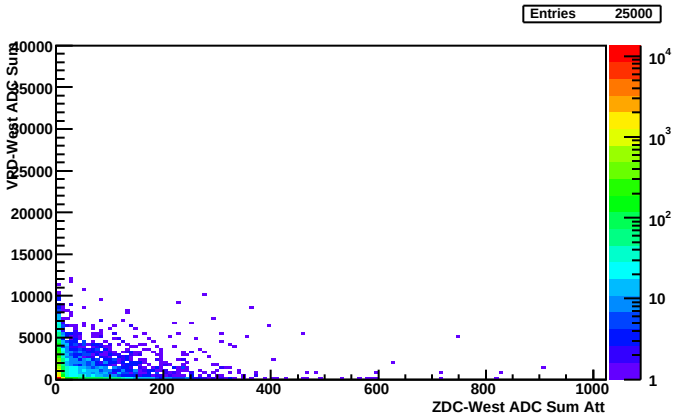

Entries 25000
BBC-S-East ADC Sum
VPD-East ADC Sum

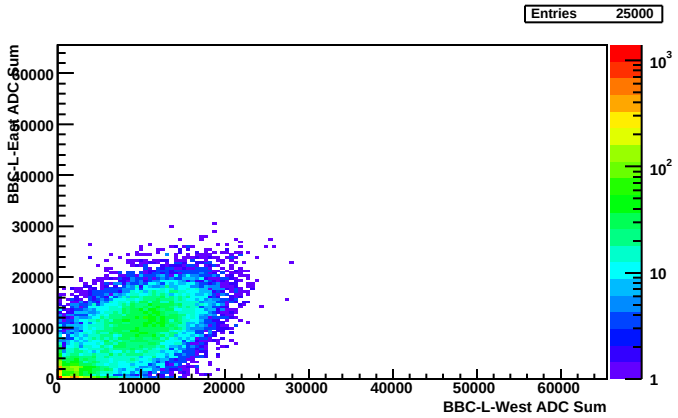

Entries 25000
BBC-S-West ADC Sum
VPD-West ADC Sum

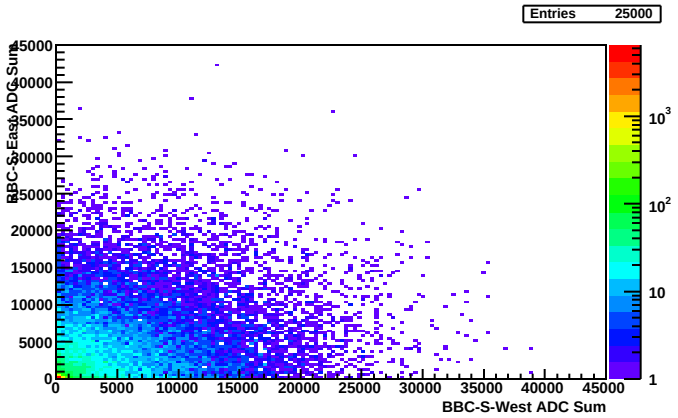

Entries 25000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

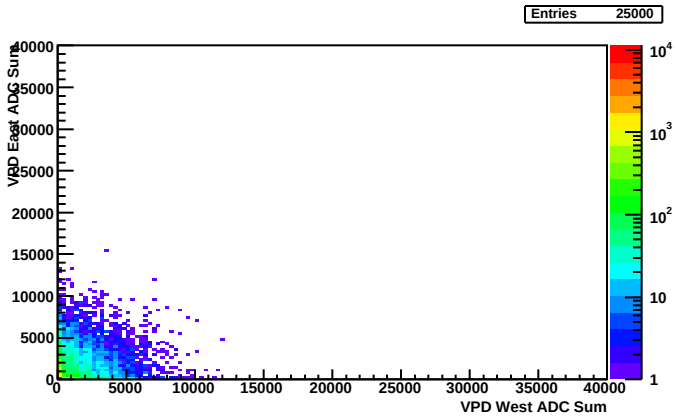

Entries 25000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

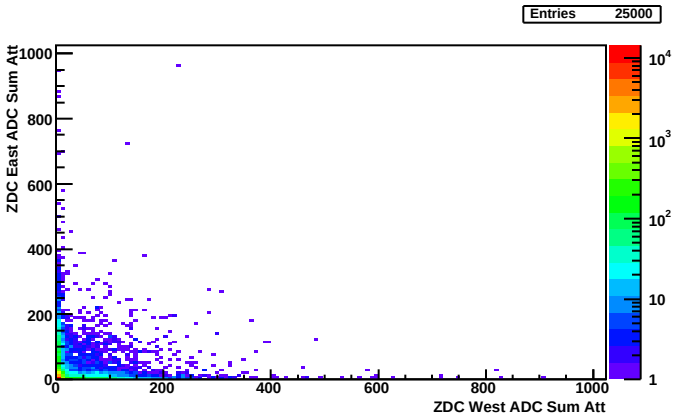

Entries 25000
VPD-East ADC Sum
ZDC-East ADC Sum Att

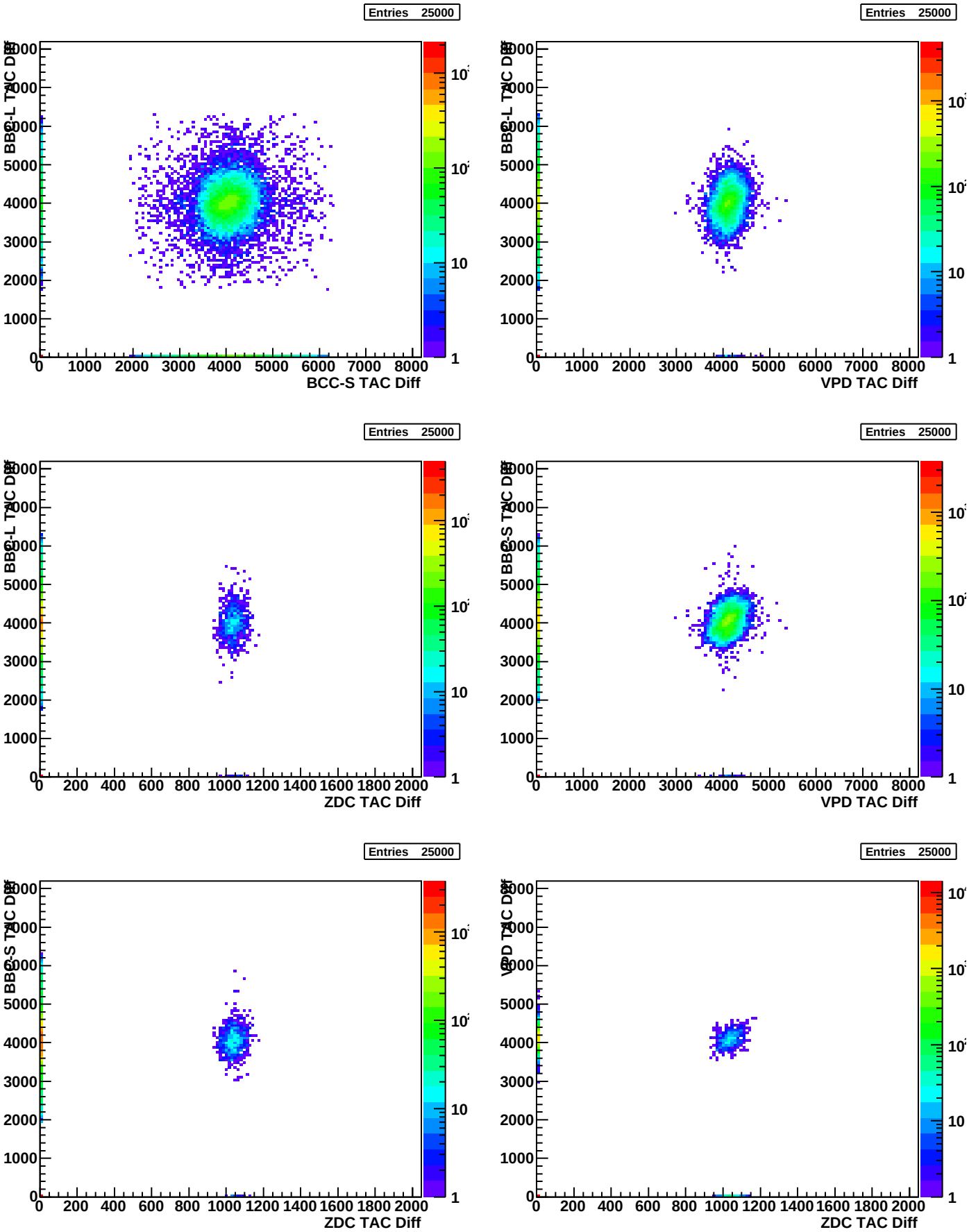

Entries 25000
VPD-West ADC Sum
ZDC-West ADC Sum Att

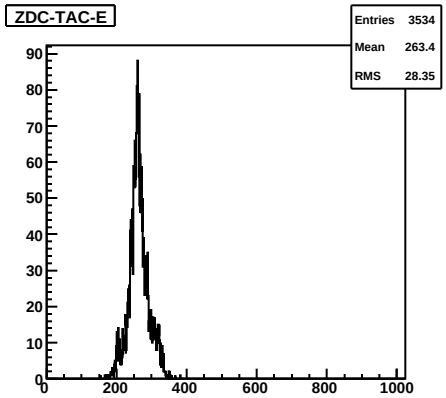

Entries 25000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

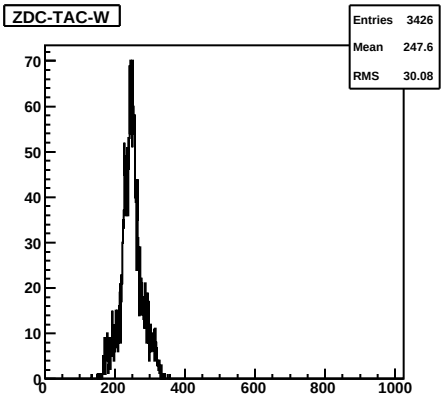

Entries 25000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

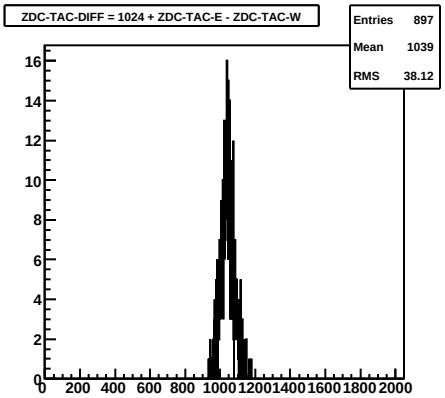

Entries 25000
VPD East ADC Sum
VPD West ADC Sum

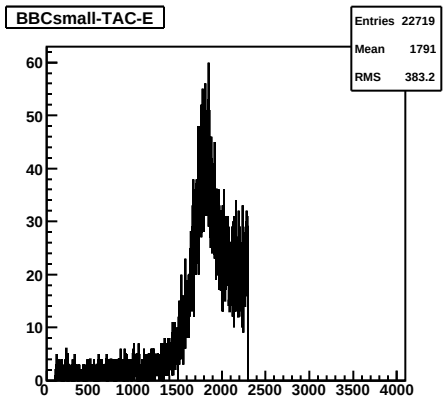

Entries 25000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

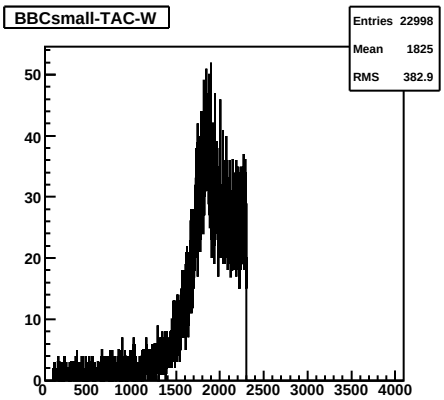

Entries 25000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 25000
BBC-L TAC Diff
VPD TAC Diff
Entries 25000
BBC-L TAC Diff
ZDC TAC Diff
Entries 25000
BBC-S TAC Diff
VPD TAC Diff
Entries 25000
BBC-S TAC Diff
ZDC TAC Diff
Entries 25000
VPD TAC Diff
ZDC TAC Diff

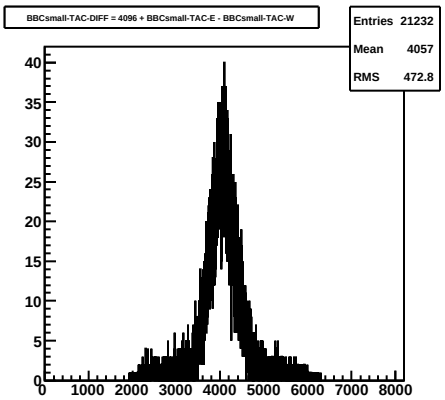

ZDC-TAC-E
Entries 3534
Mean 263.4
RMS 28.35

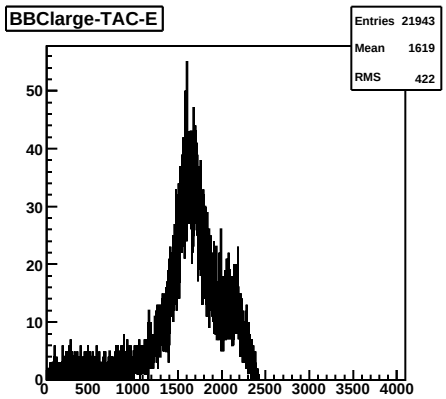

ZDC-TAC-W
Entries 3426
Mean 247.6
RMS 30.08

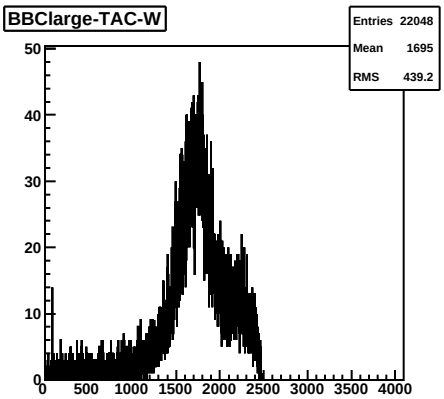

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 897
Mean 1039
RMS 38.12

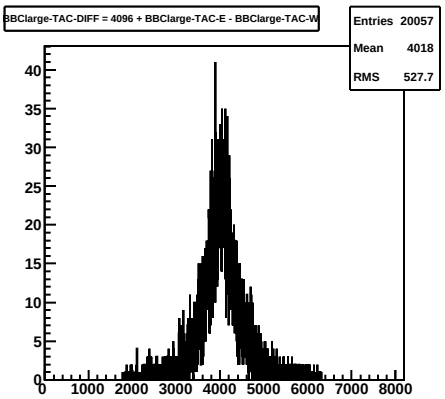

BBCsmall-TAC-E
Entries 22719
Mean 1791
RMS 383.2

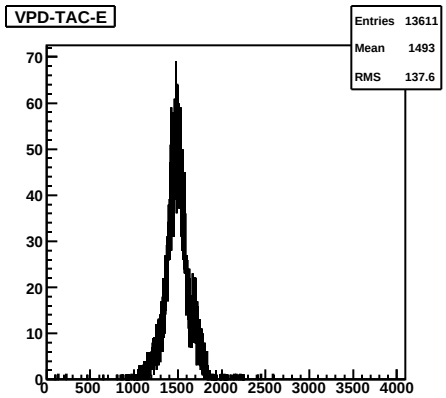

BBCsmall-TAC-W
Entries 22998
Mean 1825
RMS 382.9

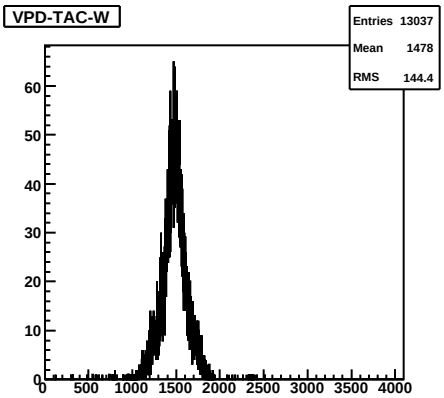

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 21232
Mean 4057
RMS 472.8

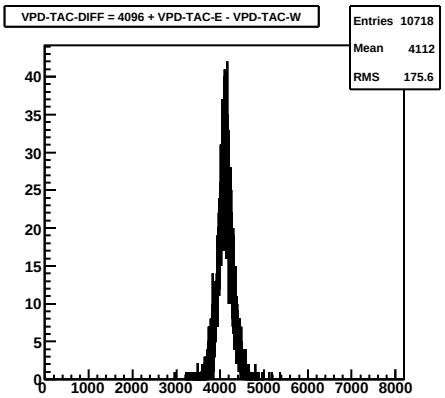

BBClarge-TAC-E
Entries 21943
Mean 1619
RMS 422

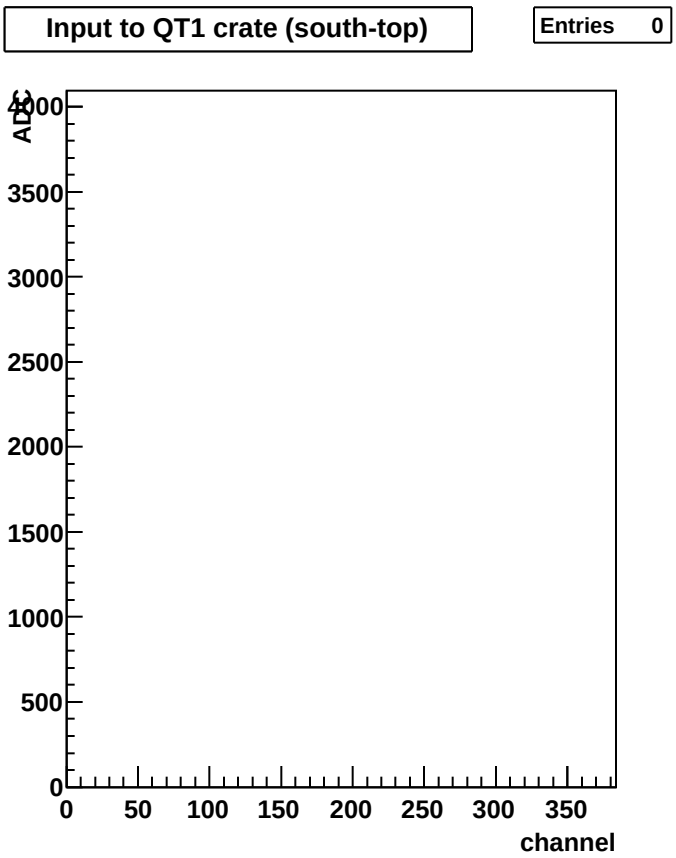

BBClarge-TAC-W
Entries 22048
Mean 1695
RMS 439.2

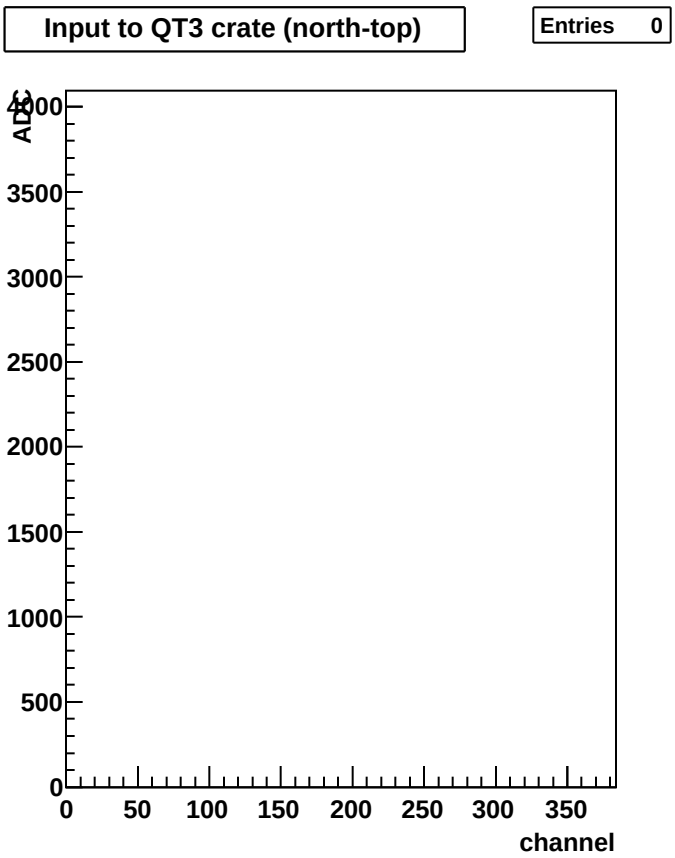

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 20057
Mean 4018
RMS 527.7

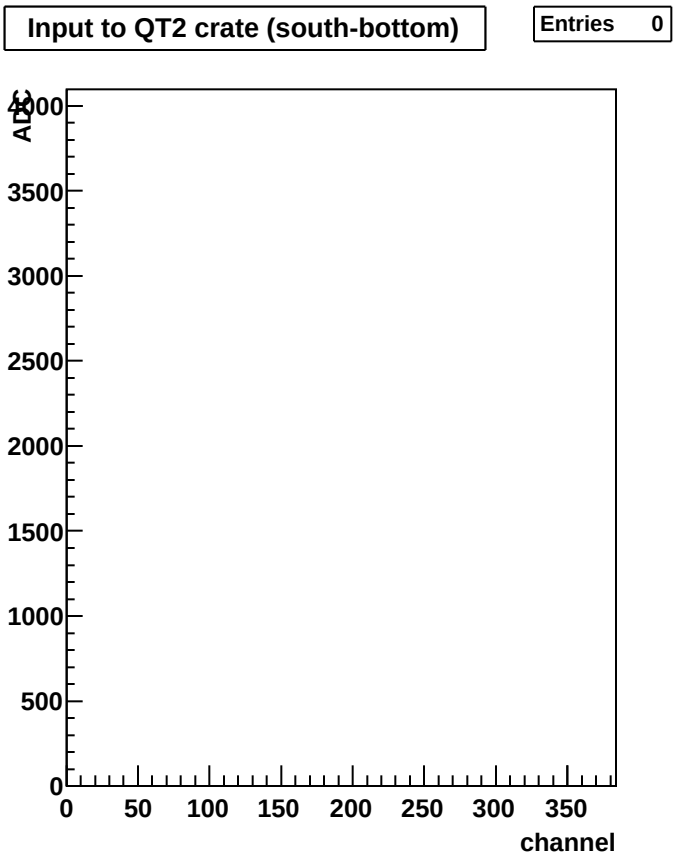

VPD-TAC-E
Entries 13611
Mean 1493
RMS 137.6

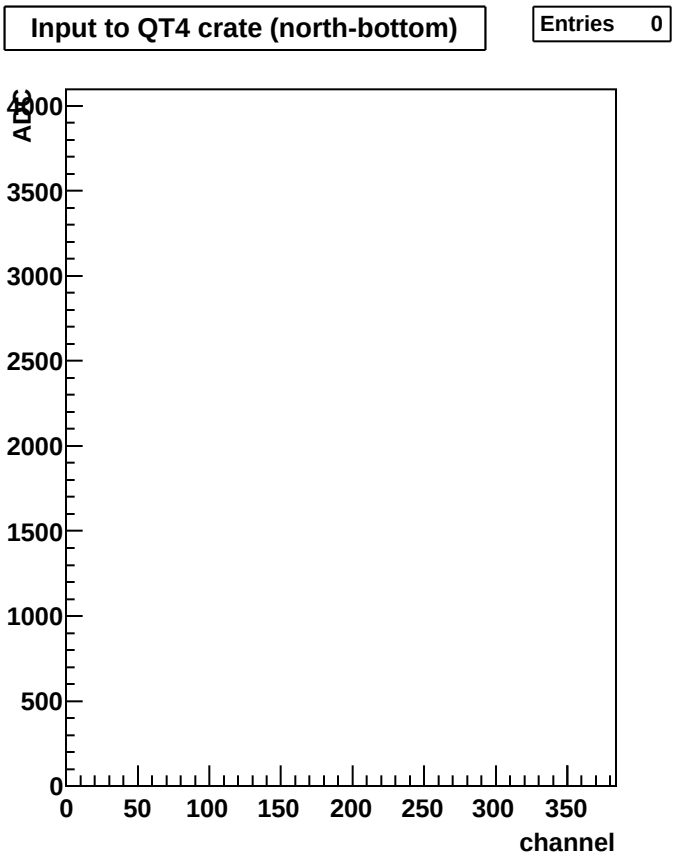

VPD-TAC-W
Entries 13037
Mean 1478
RMS 144.4

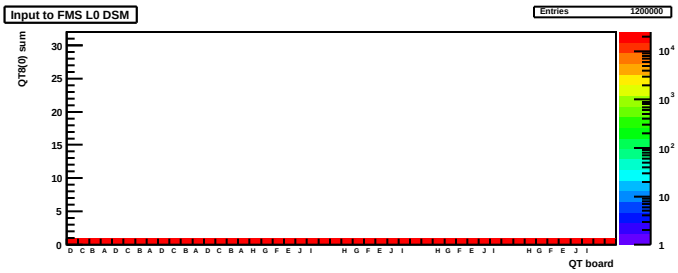

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 10718
Mean 4112
RMS 175.6

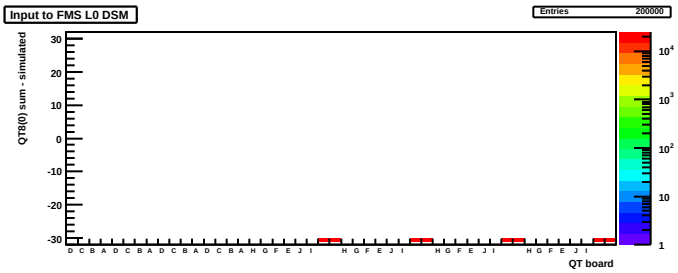

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

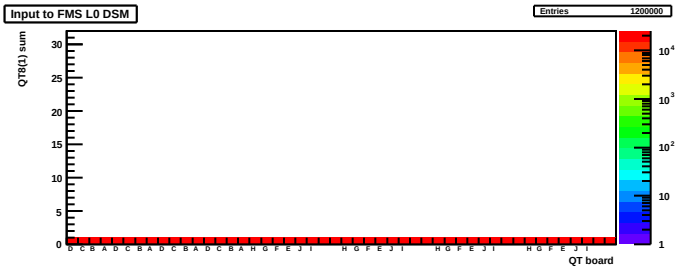

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

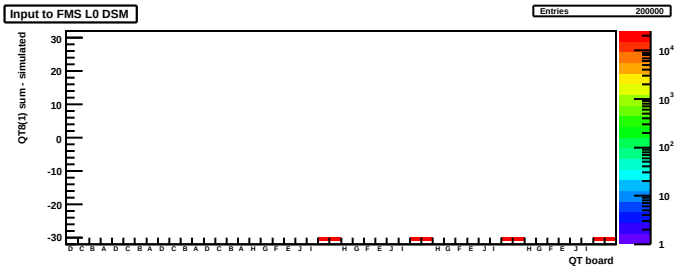

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

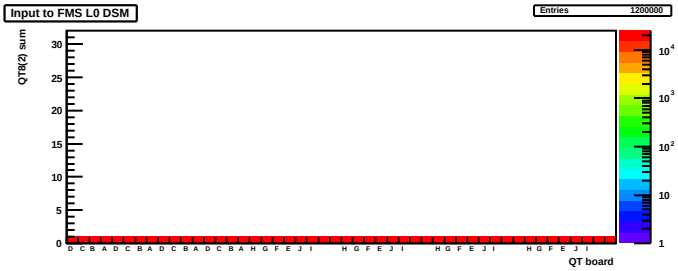

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

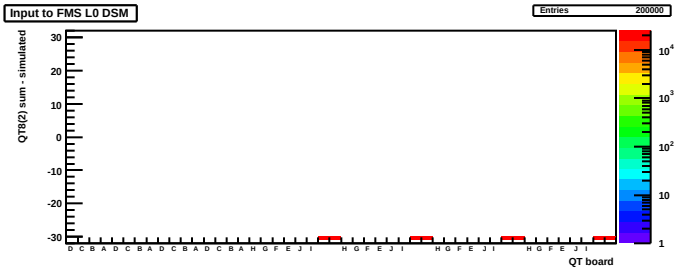

Input to FMS L0 DSM
Entries 1200000
QT8(0) sum
QT board

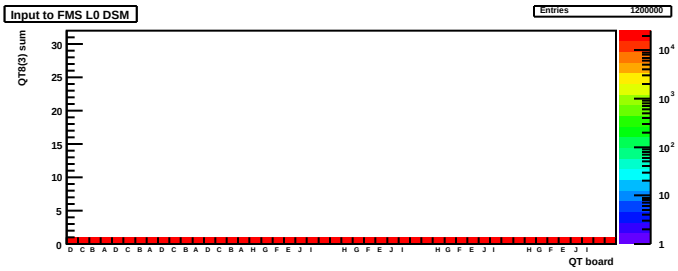

Input to FMS L0 DSM
Entries 200000
QT8(0) sum - simulated
QT board

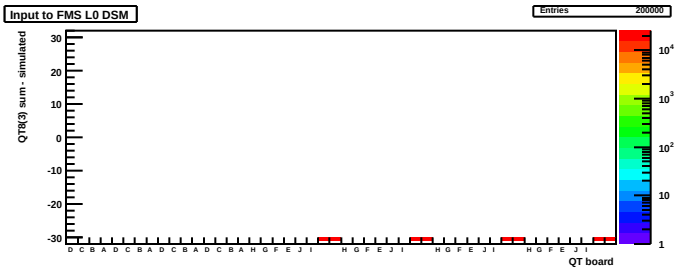

Input to FMS L0 DSM
Entries 1200000
QT8(1) sum
QT board

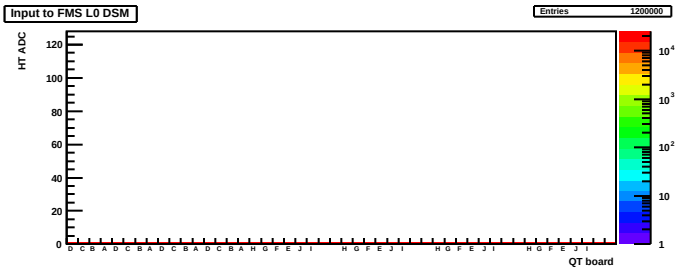

Input to FMS L0 DSM
Entries 200000
QT8(1) sum - simulated
QT board

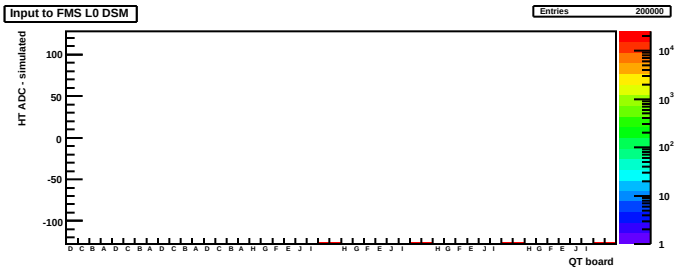

Input to FMS L0 DSM
Entries 1200000
QT8(2) sum
QT board

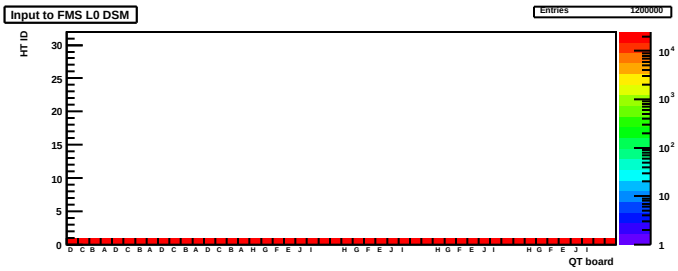

Input to FMS L0 DSM
Entries 200000
QT8(2) sum - simulated
QT board

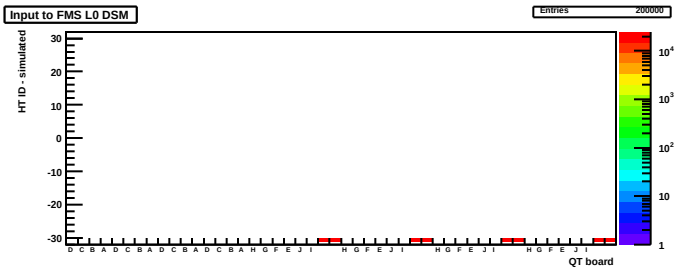

Input to FMS L0 DSM
Entries 1200000
QT8(3) sum
QT board

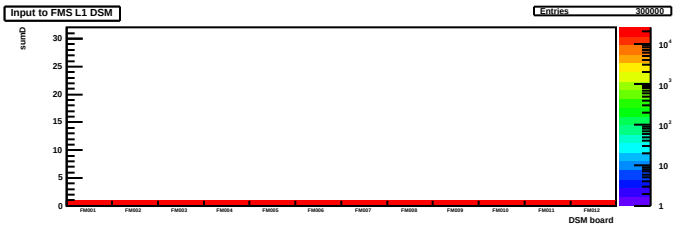

Input to FMS L0 DSM
Entries 200000
QT8(3) sum - simulated
QT board

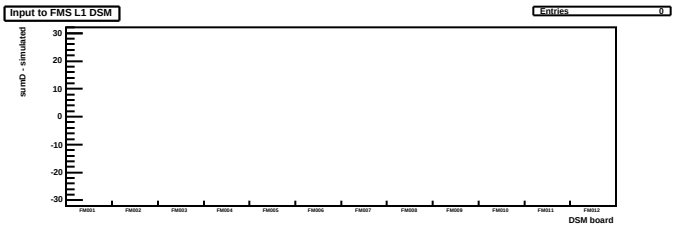

Input to FMS L0 DSM
Entries 1200000
HT ADC
QT board

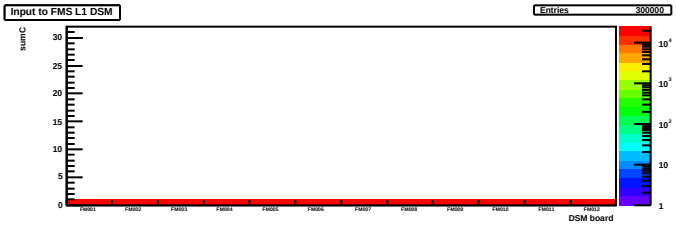

Input to FMS L0 DSM
Entries 200000
HT ADC - simulated
QT board

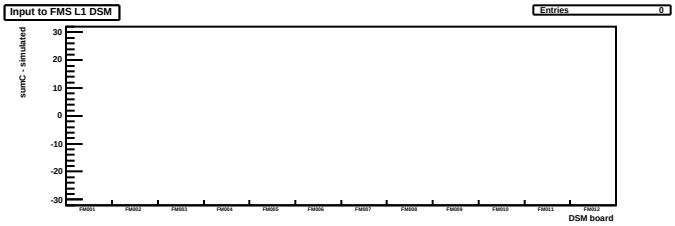

Input to FMS L0 DSM
Entries 1200000
HT ID
QT board

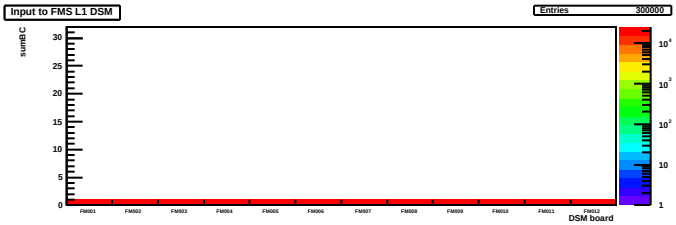

Input to FMS L0 DSM
Entries 200000
HT ID - simulated
QT board

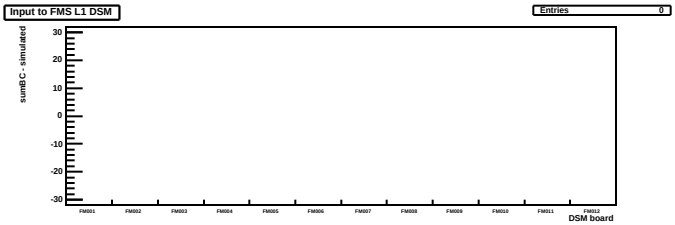

Input to FMS L1 DSM
Entries 300000
sumD
DSM board

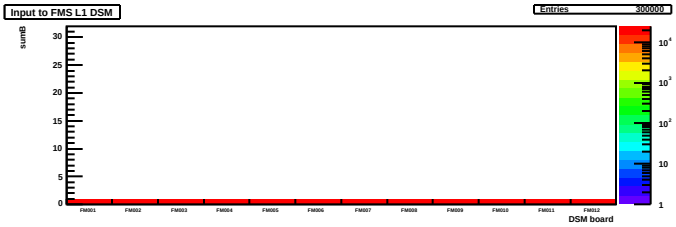

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

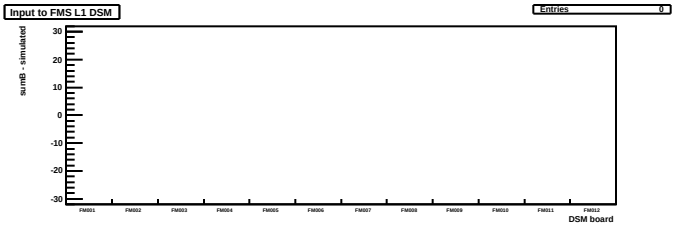

Input to FMS L1 DSM
Entries 300000
sumC
DSM board

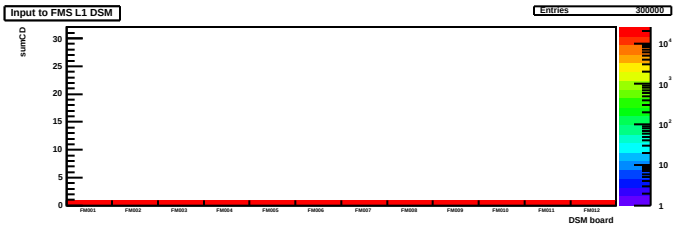

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

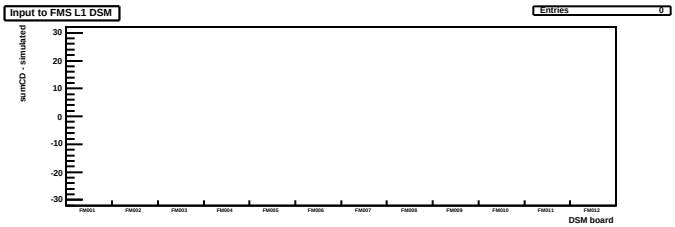

Input to FMS L1 DSM
Entries 300000
sumBC
DSM board

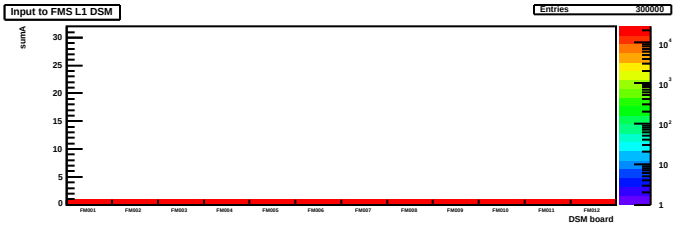

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

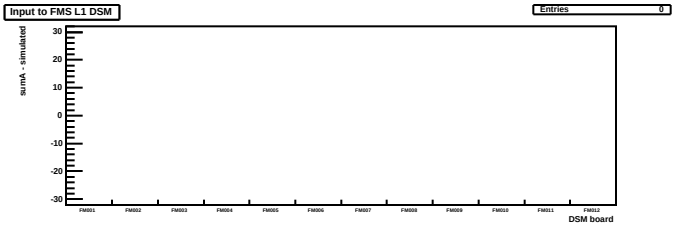

Input to FMS L1 DSM
Entries 300000
sumB
DSM board

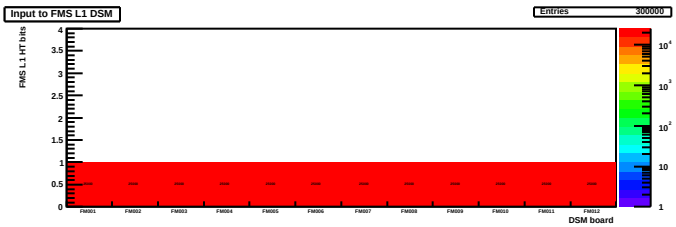

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

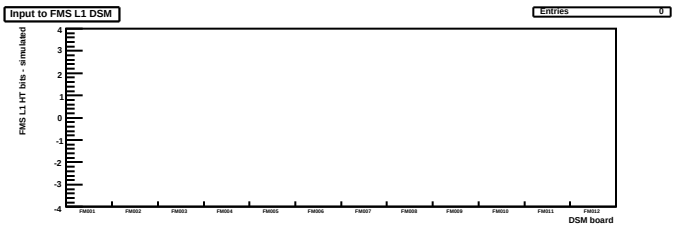

Input to FMS L1 DSM
Entries 300000
sumCD
DSM board

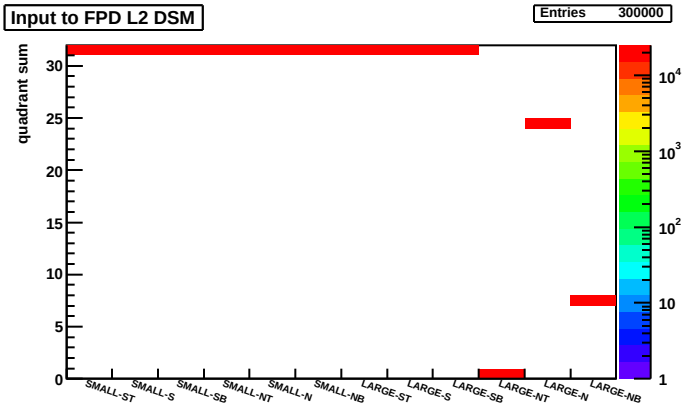

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

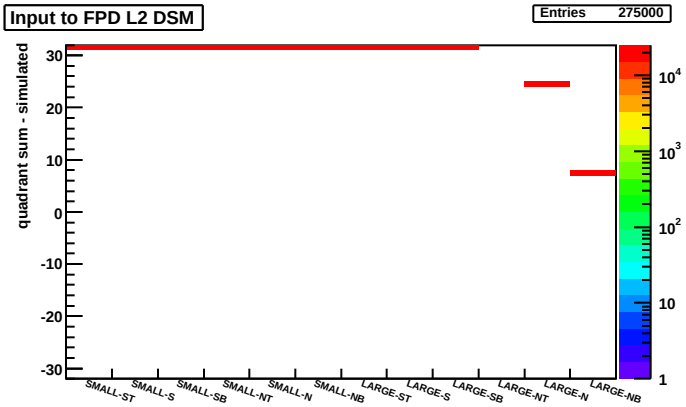

Input to FMS L1 DSM
Entries 300000
sumA
DSM board

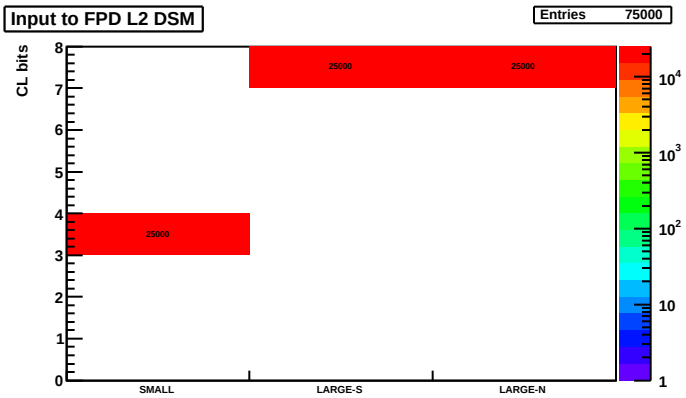

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

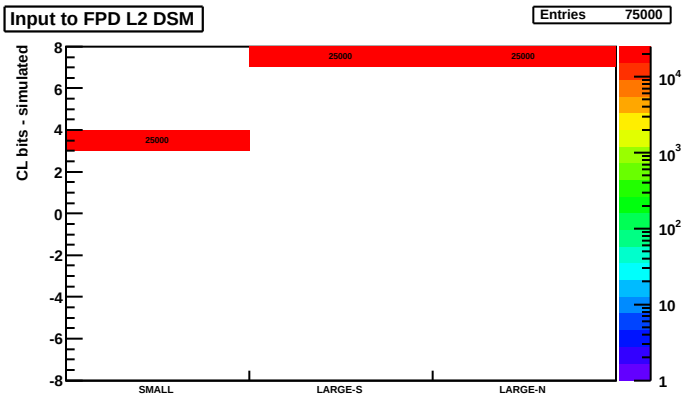

Input to FMS L1 DSM
Entries 300000
FMS L1 HT bits
DSM board

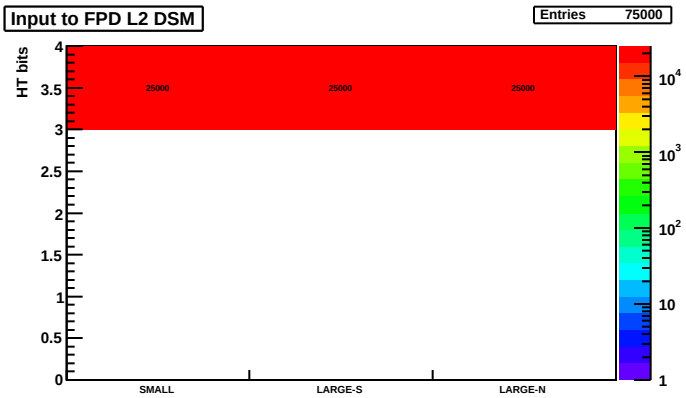

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

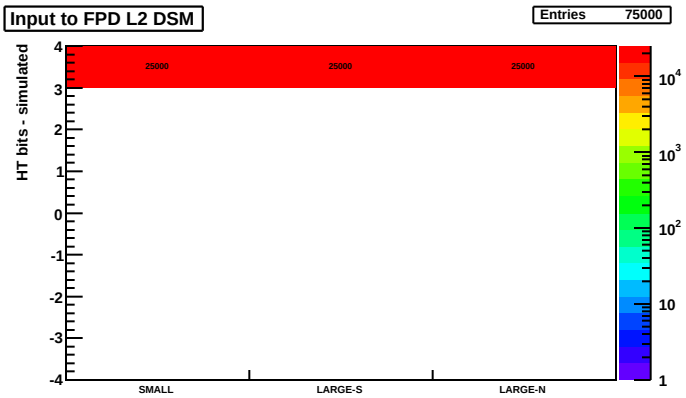

Input to FPD L2 DSM
Entries 300000
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

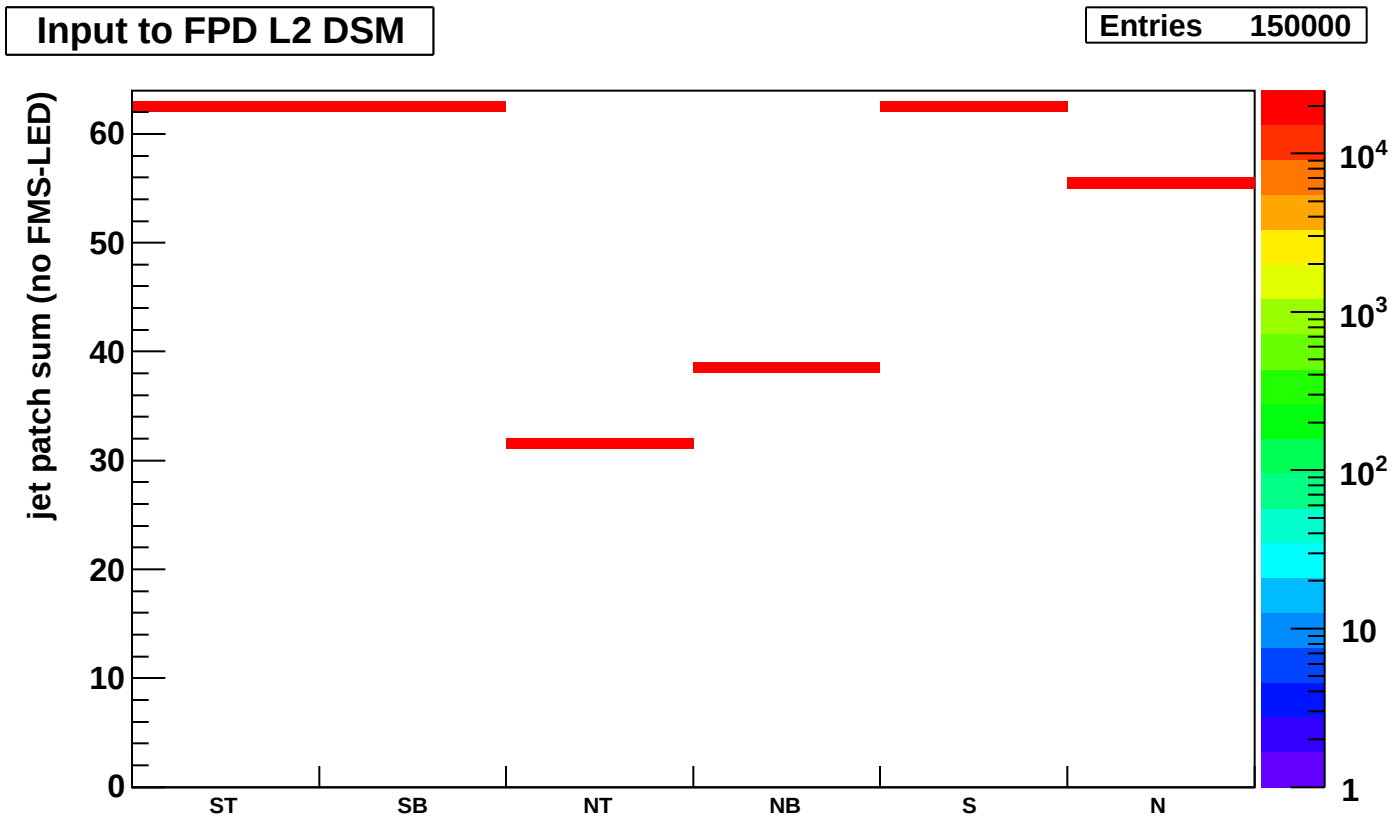

Input to FPD L2 DSM
Entries 275000
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

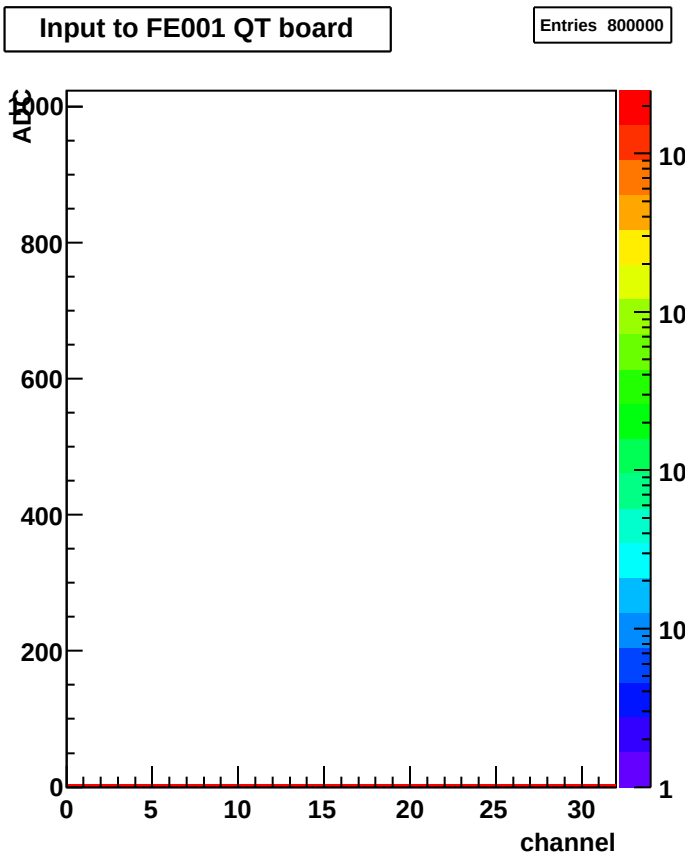

Input to FPD L2 DSM
Entries 75000
CL bits
25000
25000
25000
SMALL
LARGE-S
LARGE-N

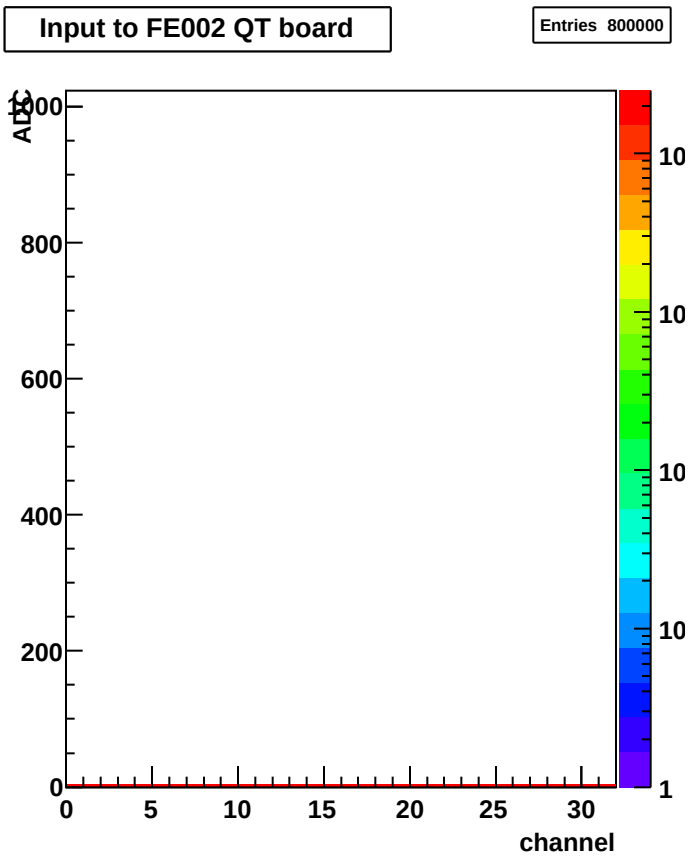

Input to FPD L2 DSM
Entries 75000
CL bits - simulated
25000
25000
25000
SMALL
LARGE-S
LARGE-N

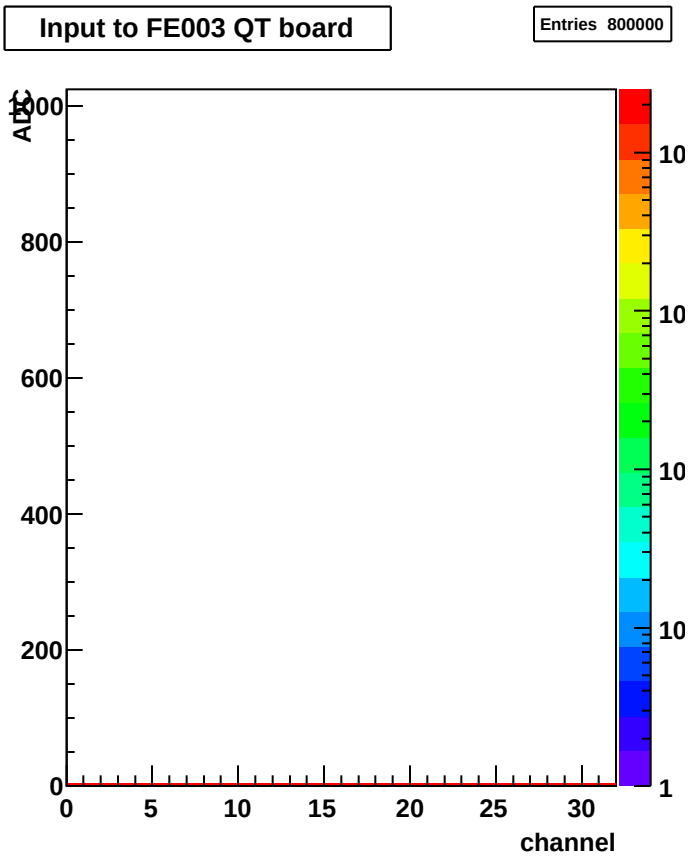

Input to FPD L2 DSM
Entries 75000
HT bits
25000
25000
25000
SMALL
LARGE-S
LARGE-N

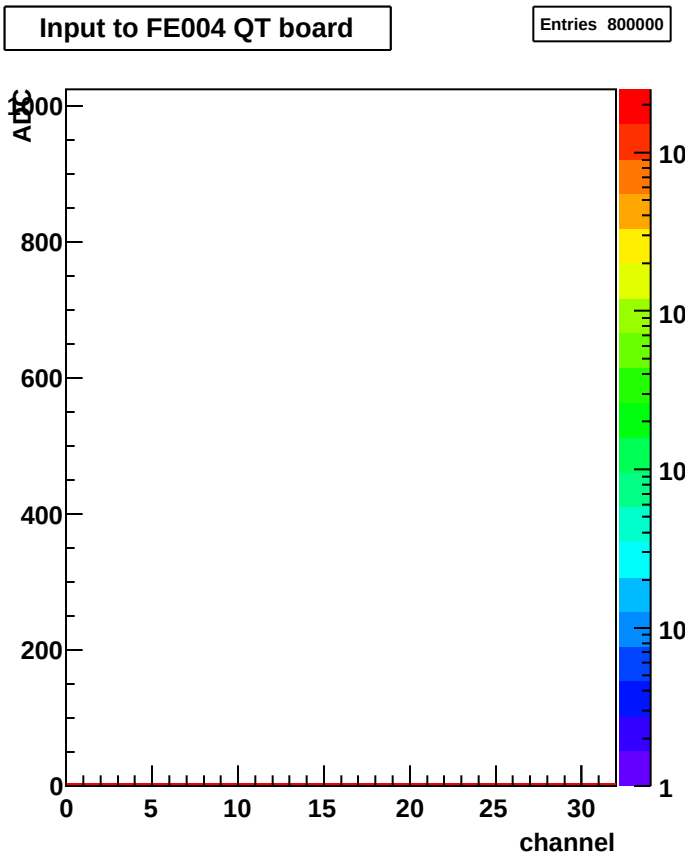

Input to FPD L2 DSM
Entries 75000
HT bits - simulated
25000
25000
25000
SMALL
LARGE-S
LARGE-N

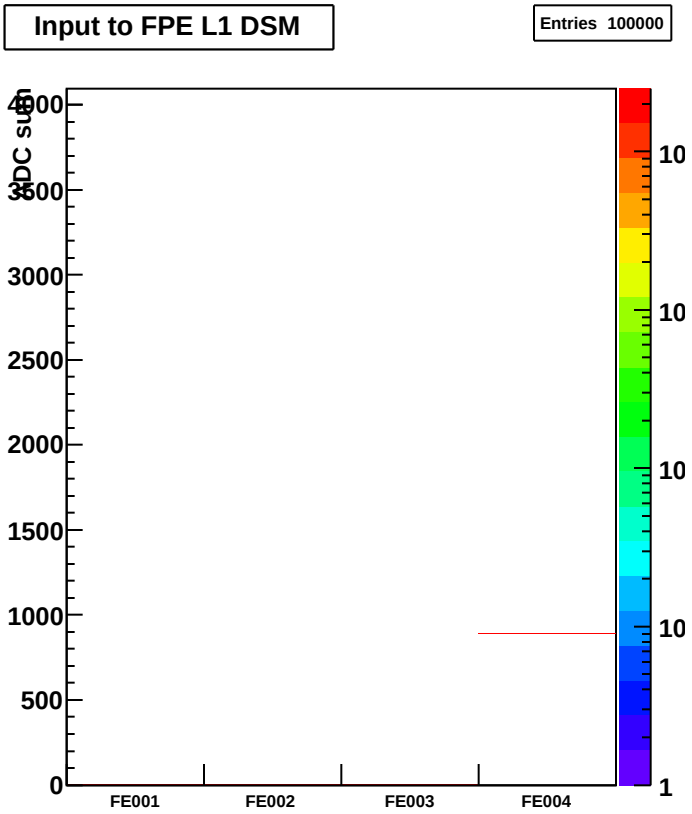

Input to FPD L2 DSM
Entries 150000
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

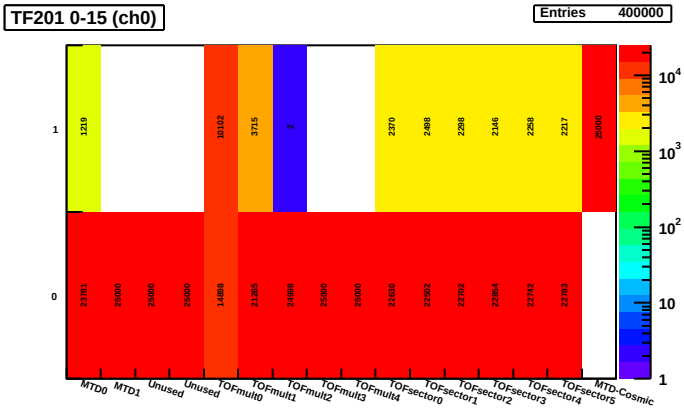

Input to FE001 QT board
Entries 800000
ADC
channel

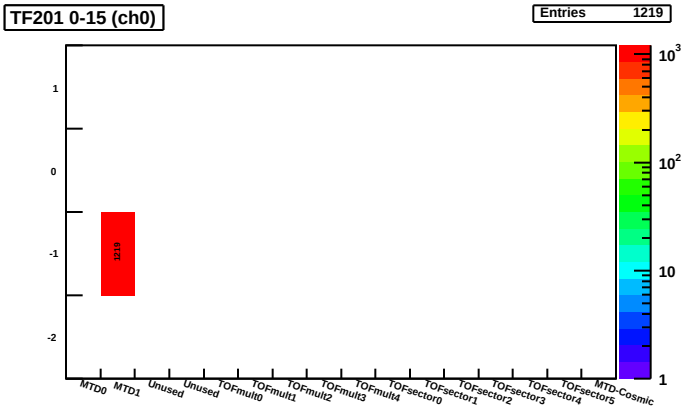

Input to FE002 QT board
Entries 800000
ADC
channel

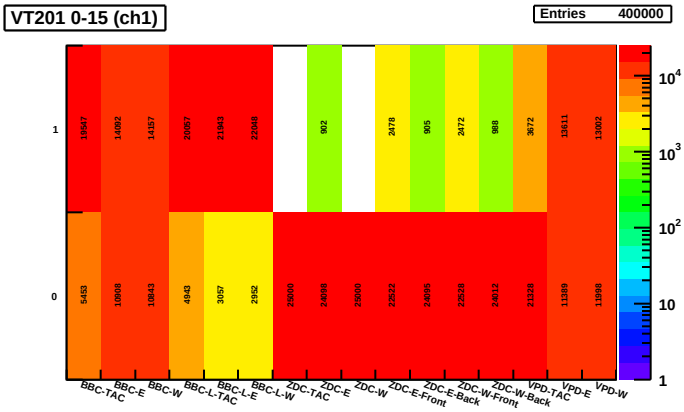

Input to FE003 QT board
Entries 800000
ADC
channel

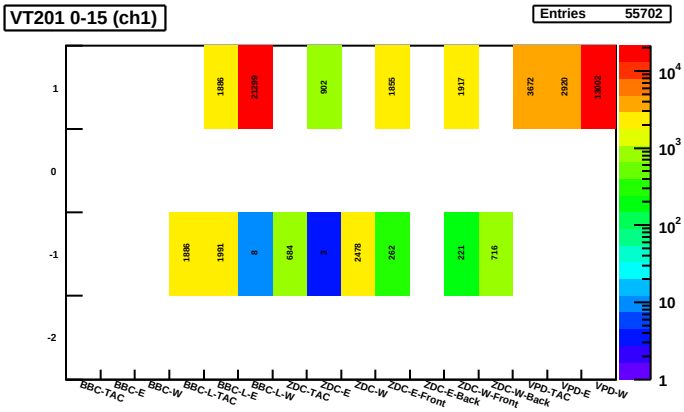

Input to FE004 QT board
Entries 800000
ADC
channel

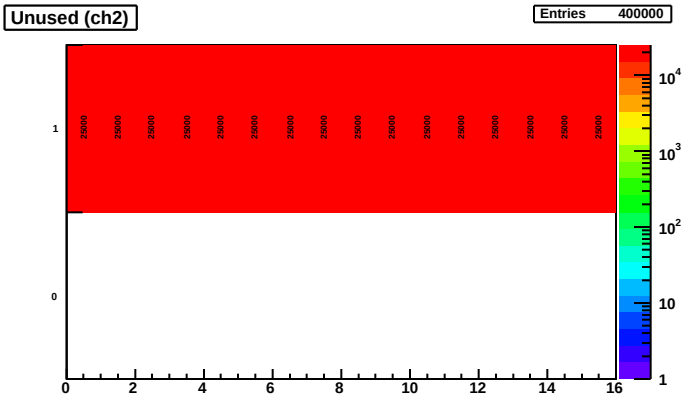

Input to FPE L1 DSM
Entries 100000
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

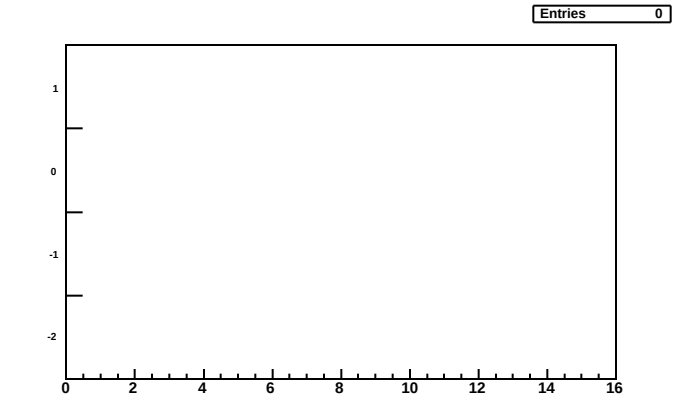

TF201 0-15 (ch0)
Entries 400000
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

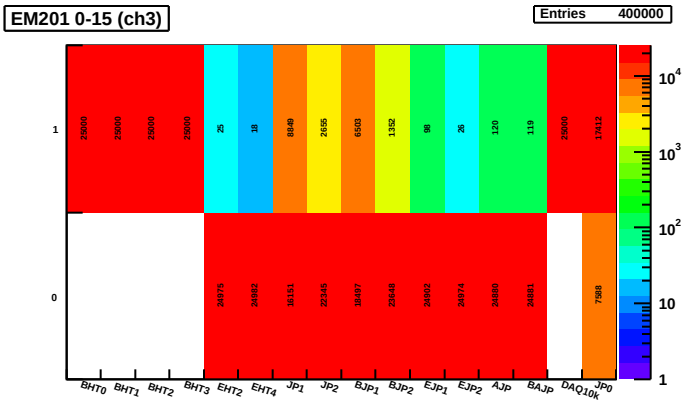

TF201 0-15 (ch0)
Entries 1219
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

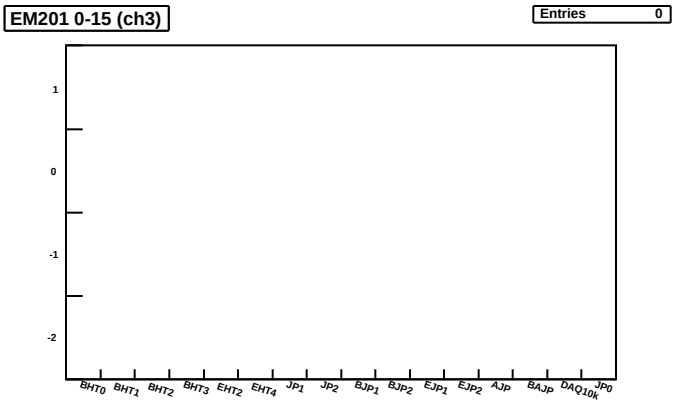

VT201 0-15 (ch1)
Entries 400000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 55702
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

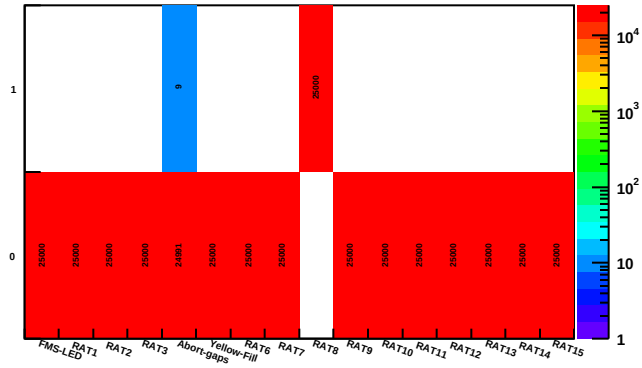

Unused (ch2)
Entries 400000

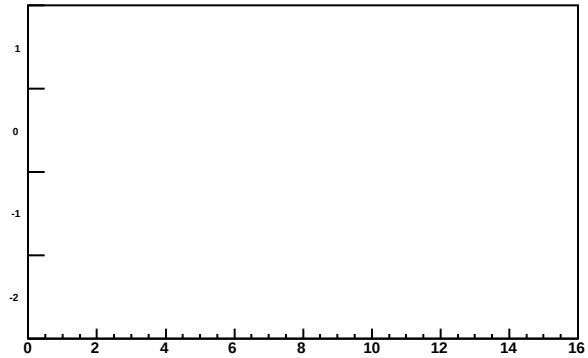

Entries 0


EM201 0-15 (ch3)
Entries 400000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

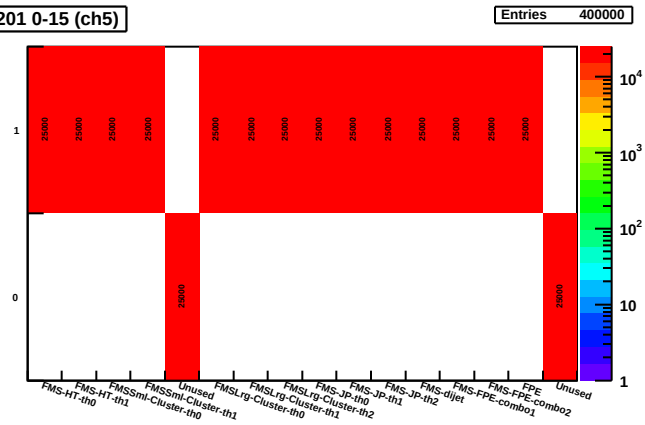

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

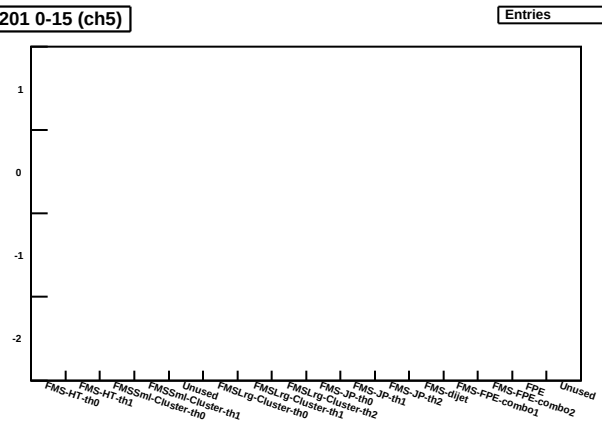




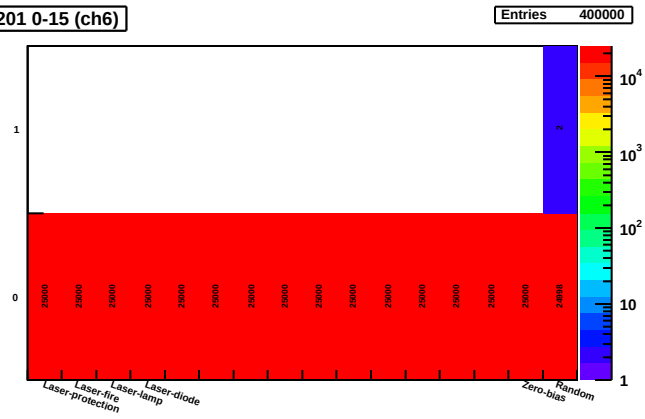
FP201 0-15 (ch5)

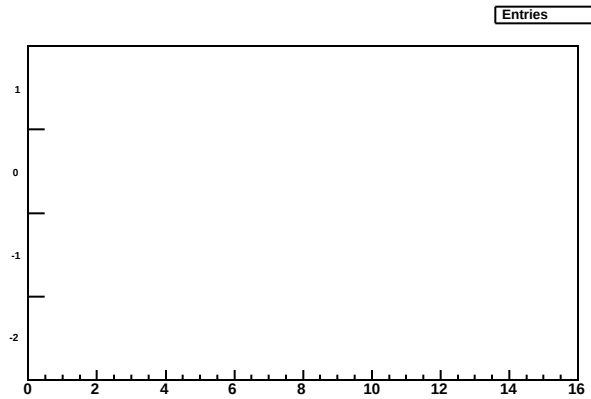
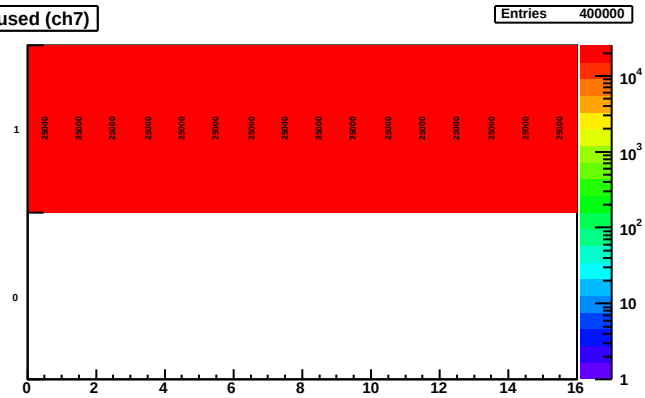
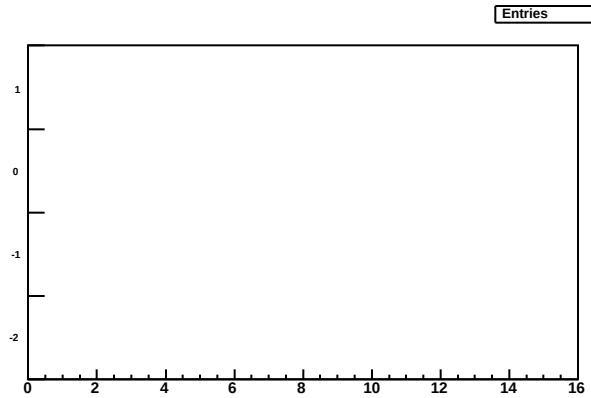


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)