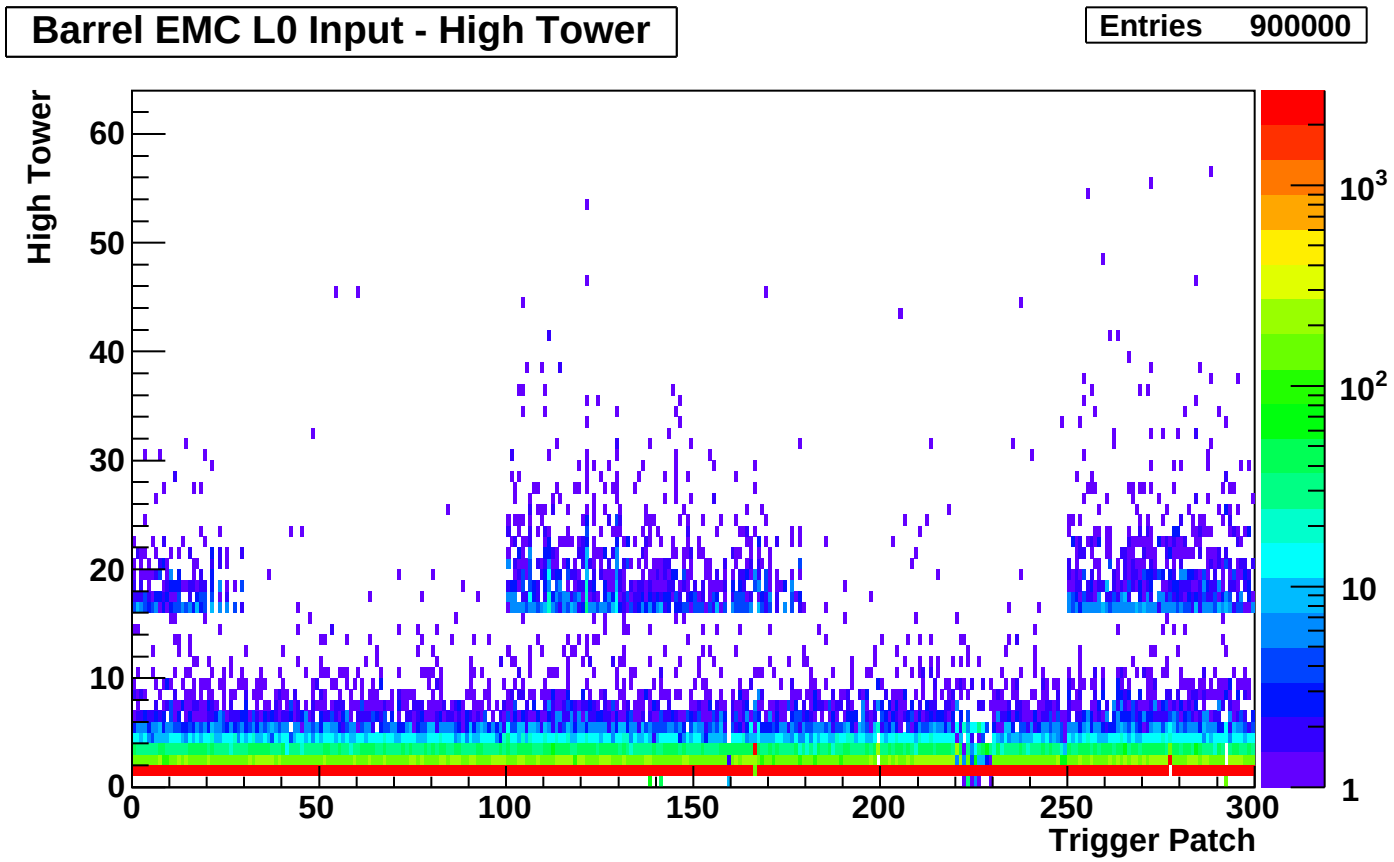
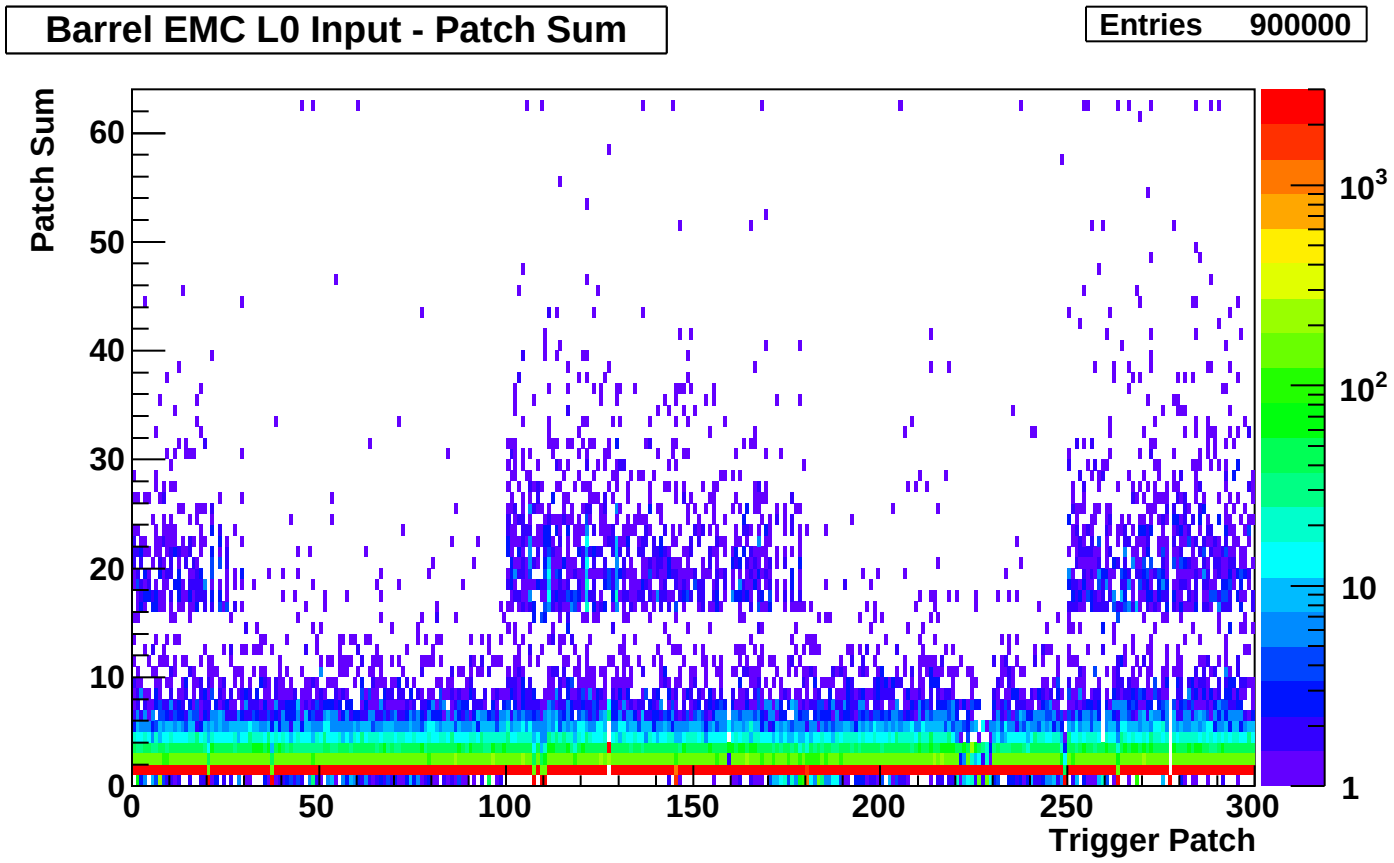
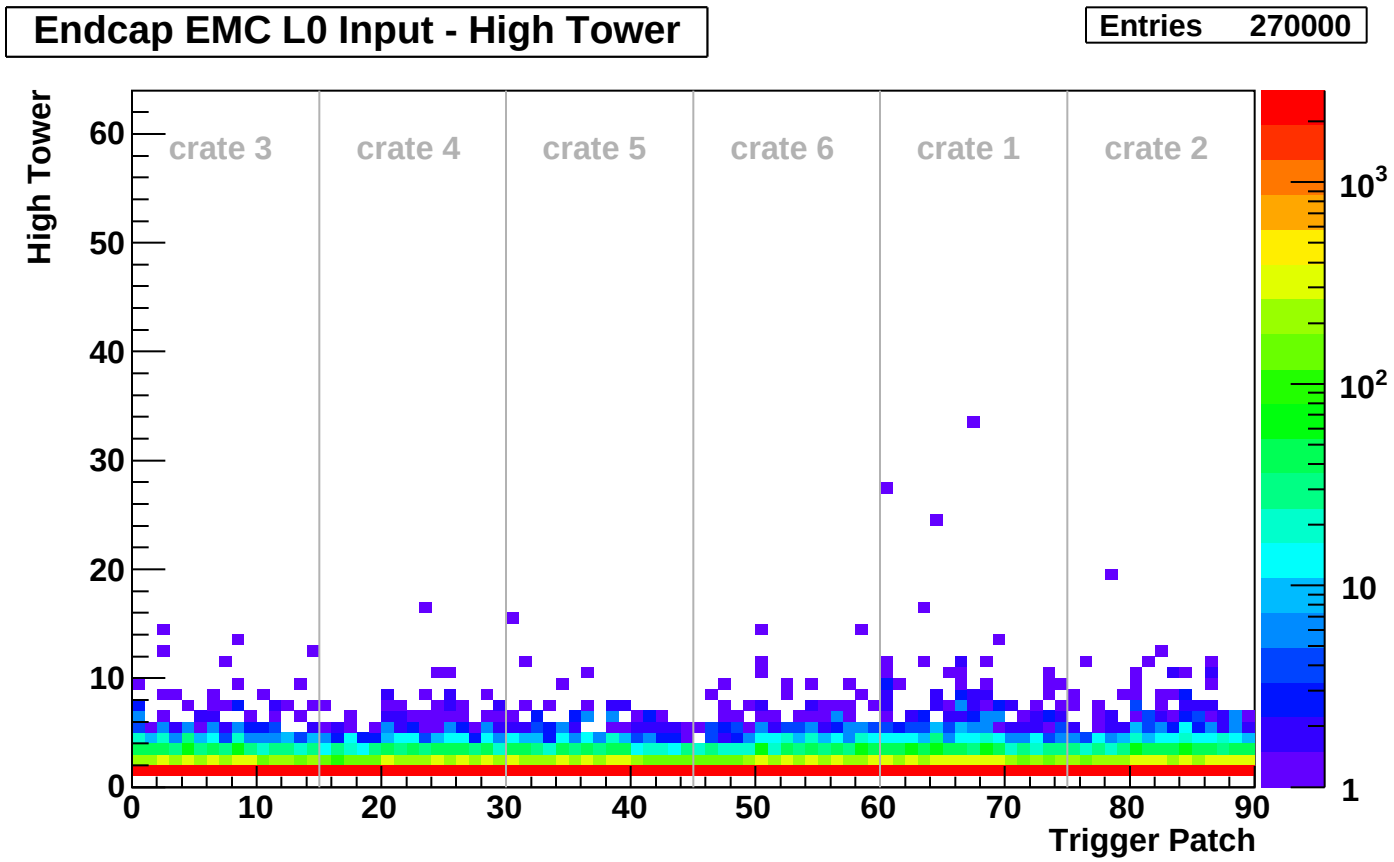
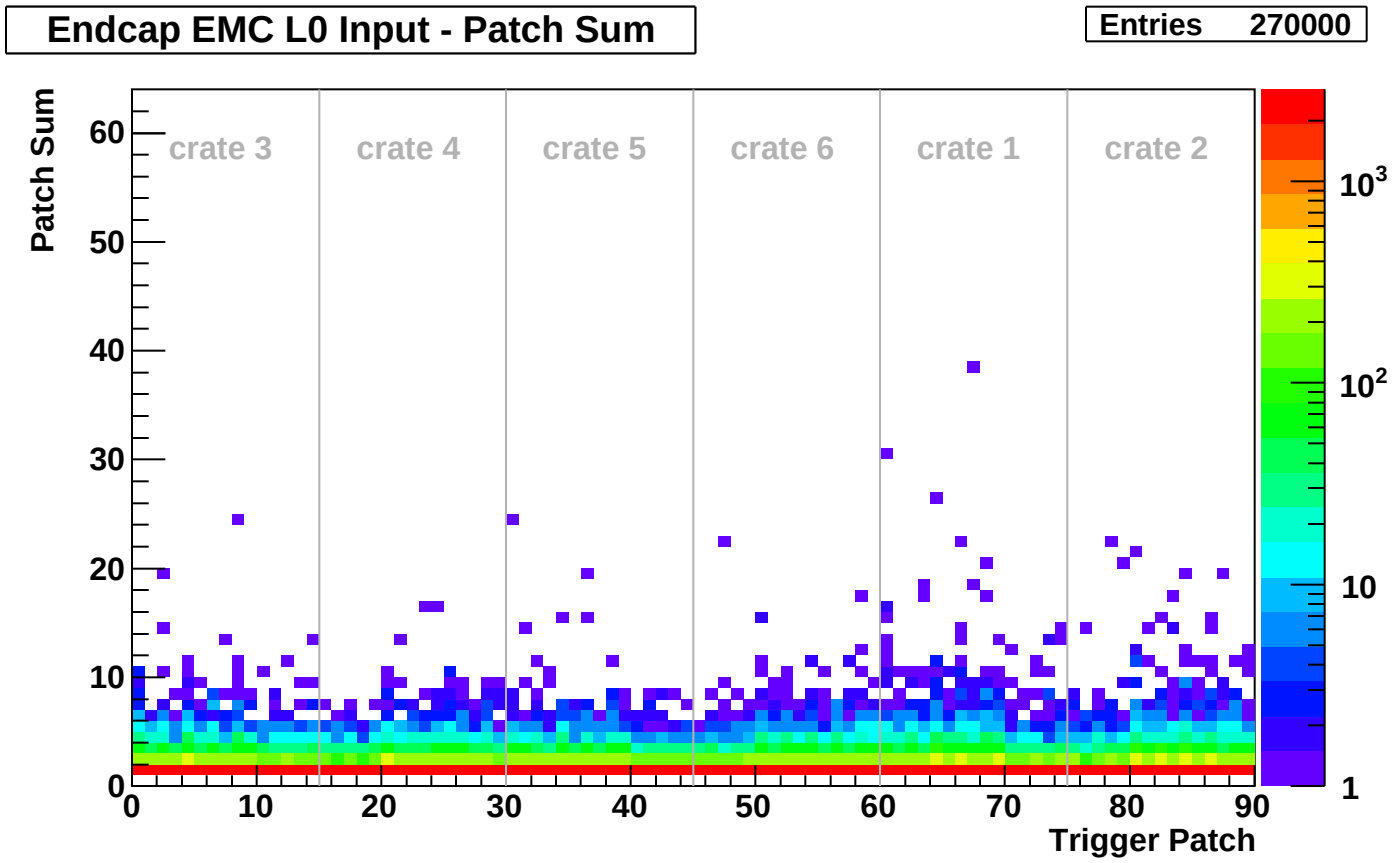
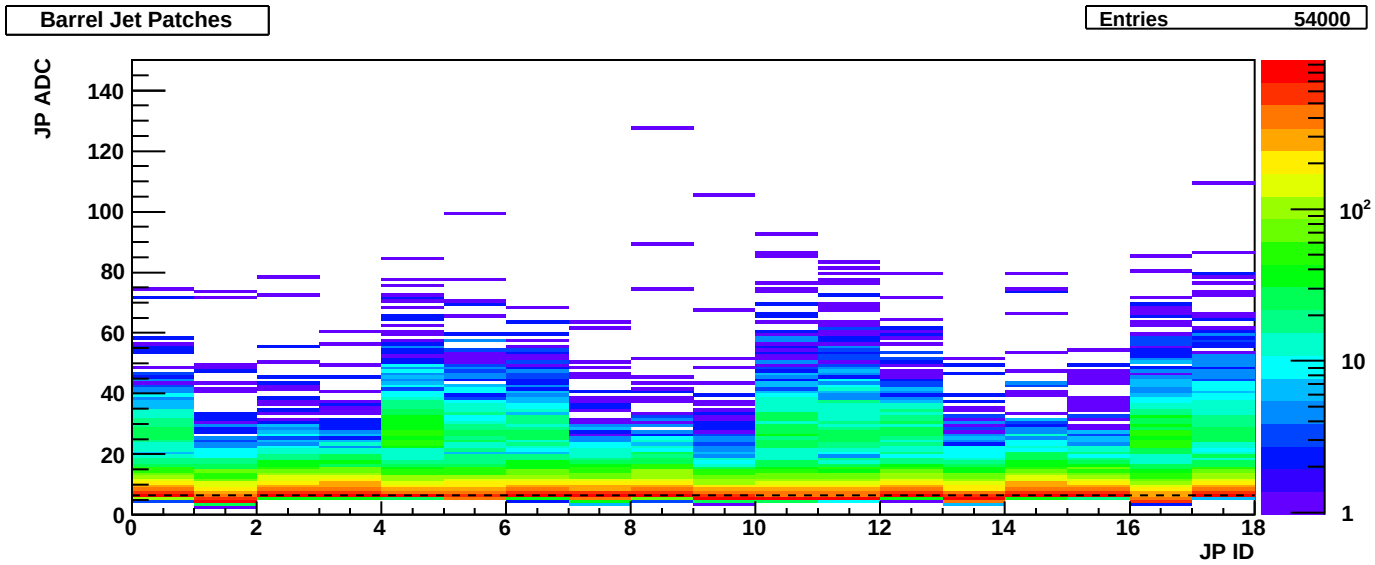
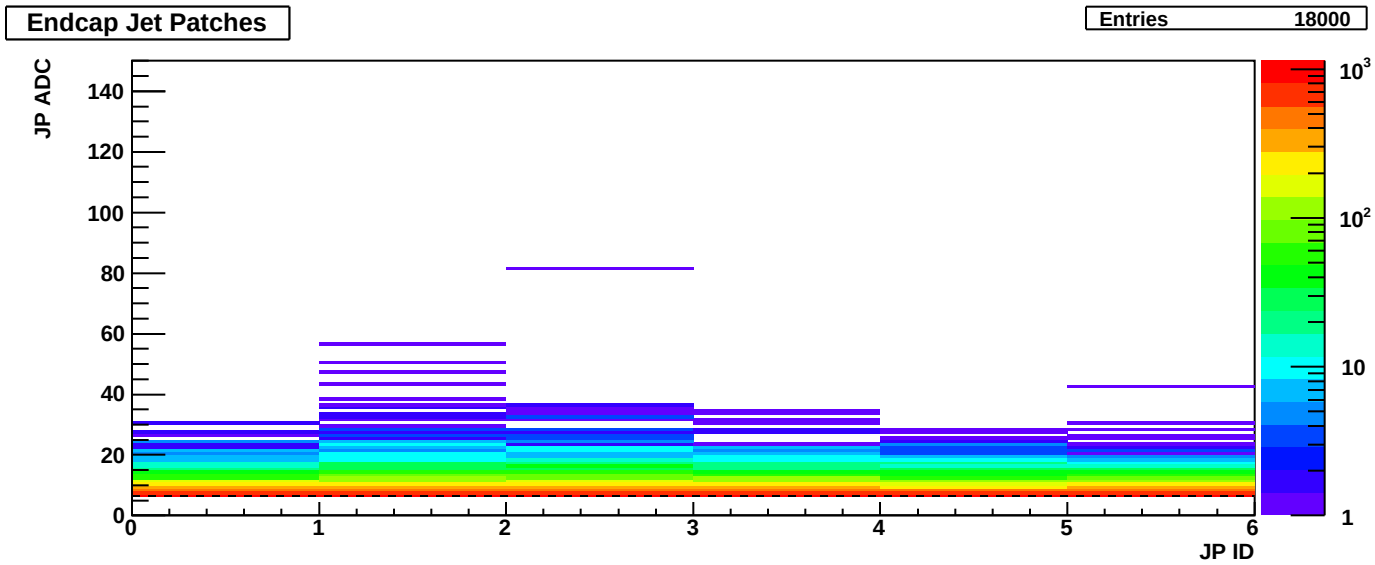

Barrel EMC L0 Input - High Tower
Entries 900000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

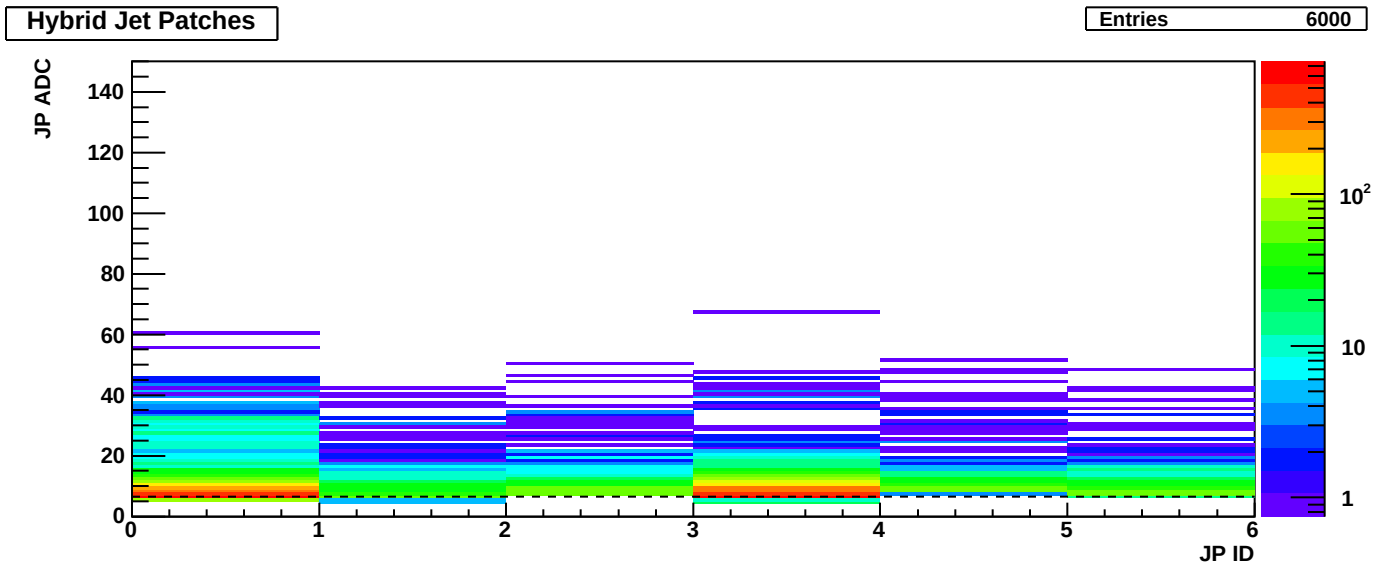

Barrel EMC L0 Input - Patch Sum
Entries 900000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

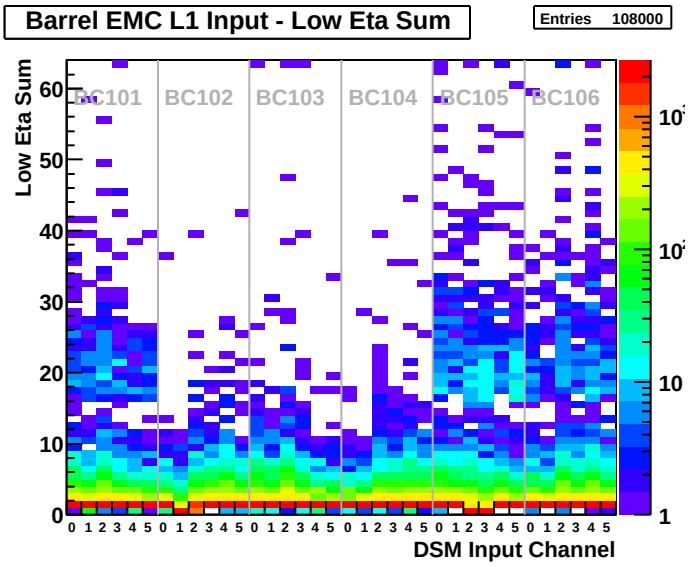

Endcap EMC L0 Input - High Tower
Entries 270000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

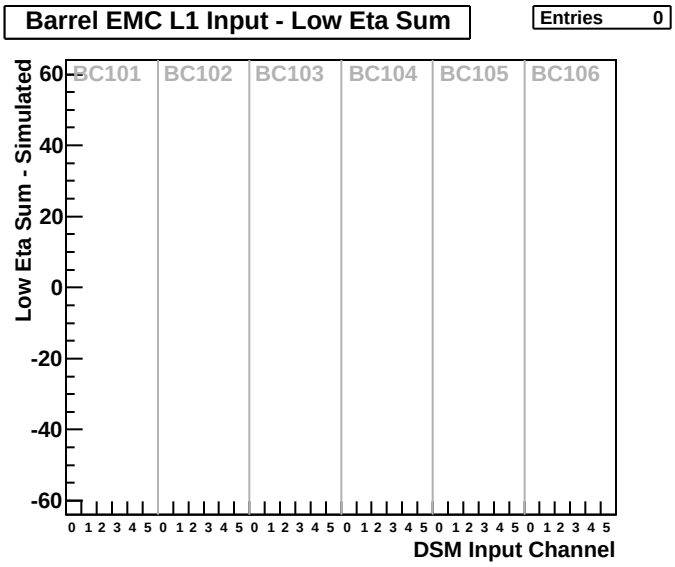

Endcap EMC L0 Input - Patch Sum
Entries 270000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

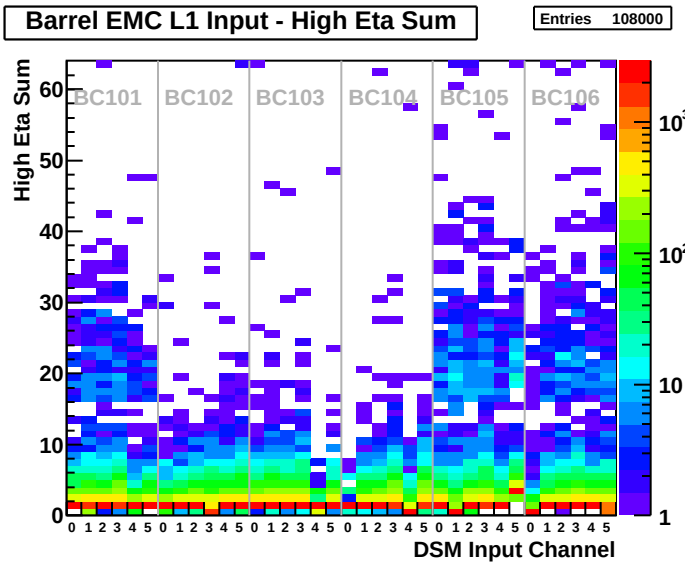

Barrel Jet Patches
Entries 54000
JP ADC
JP ID

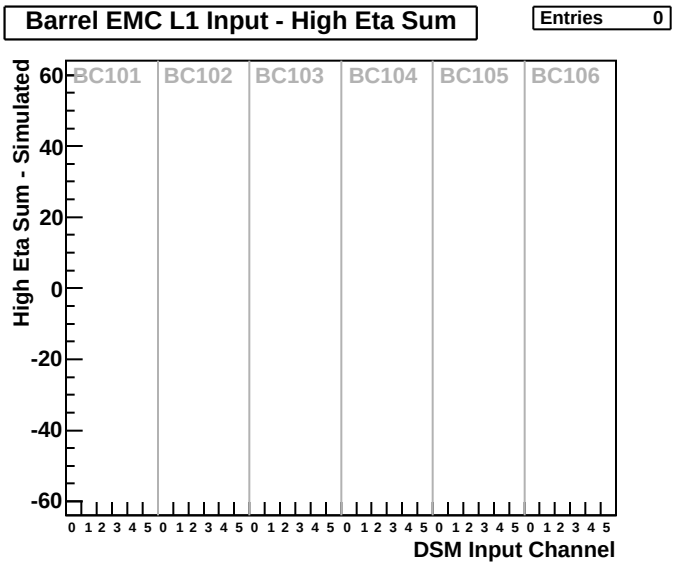

Endcap Jet Patches
Entries 18000
JP ADC
JP ID

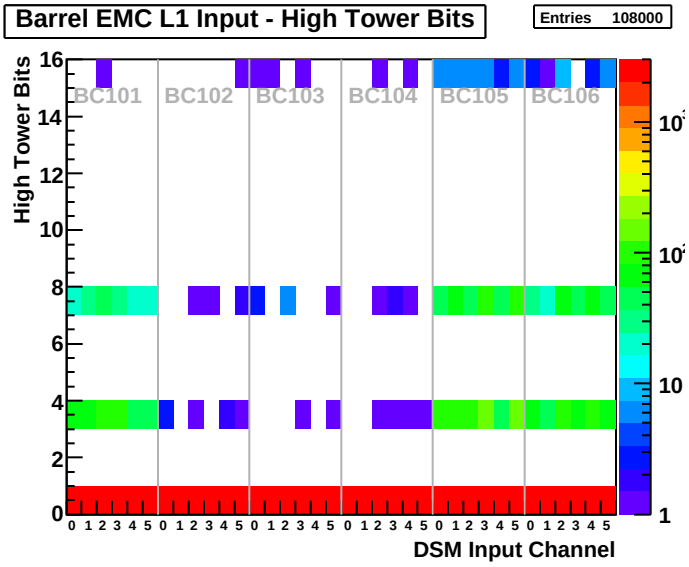

Hybrid Jet Patches
Entries 6000
JP ADC
JP ID

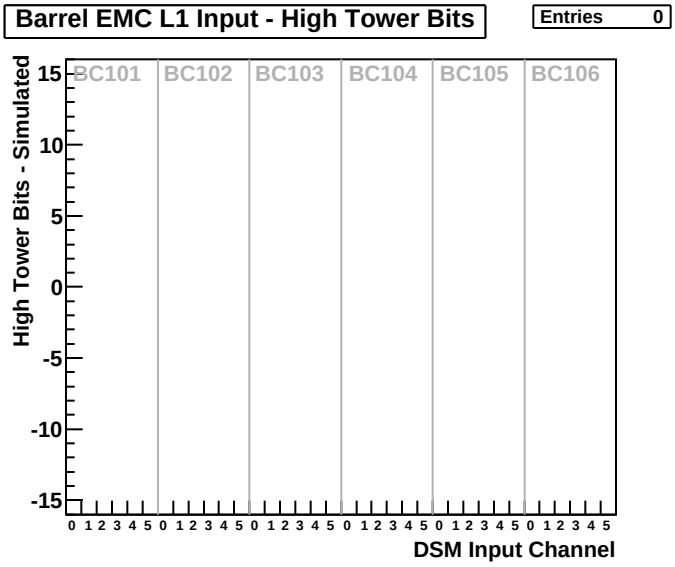

Barrel EMC L1 Input - Low Eta Sum
Entries 108000
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

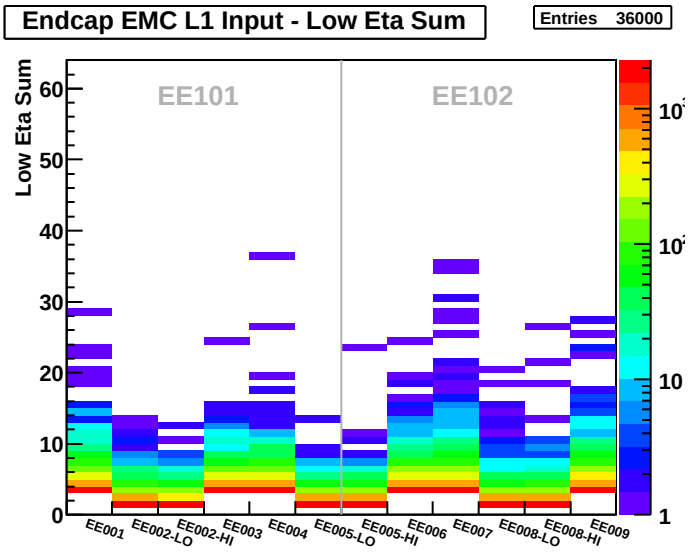

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

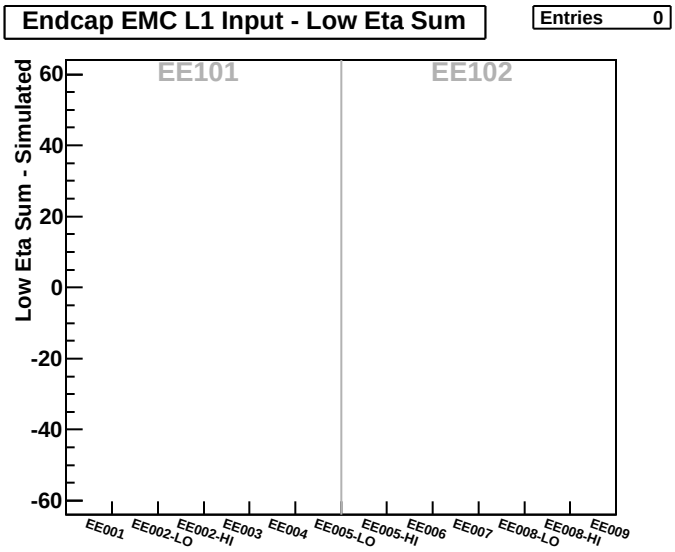

Barrel EMC L1 Input - High Eta Sum
Entries 108000
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

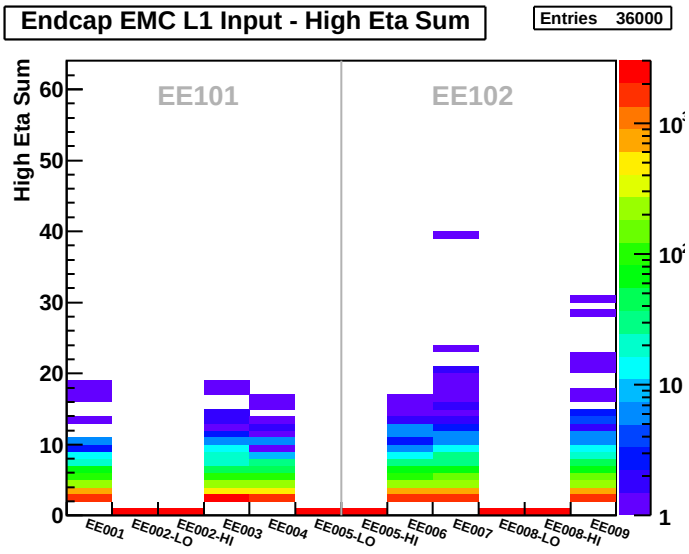

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

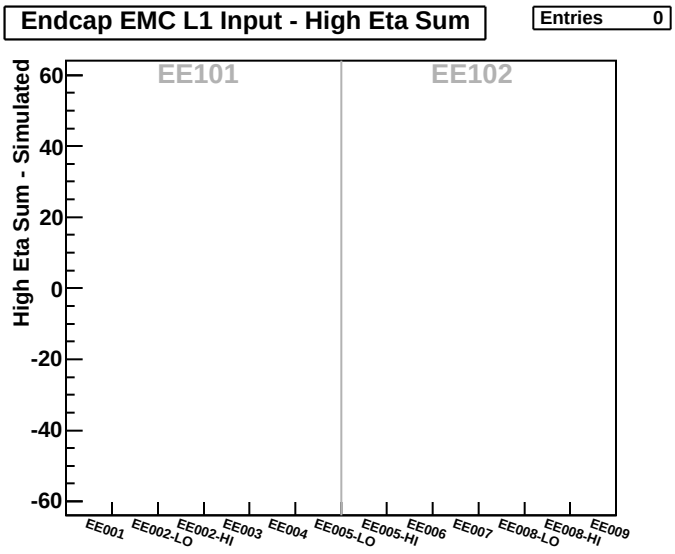

Barrel EMC L1 Input - High Tower Bits
Entries 108000
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

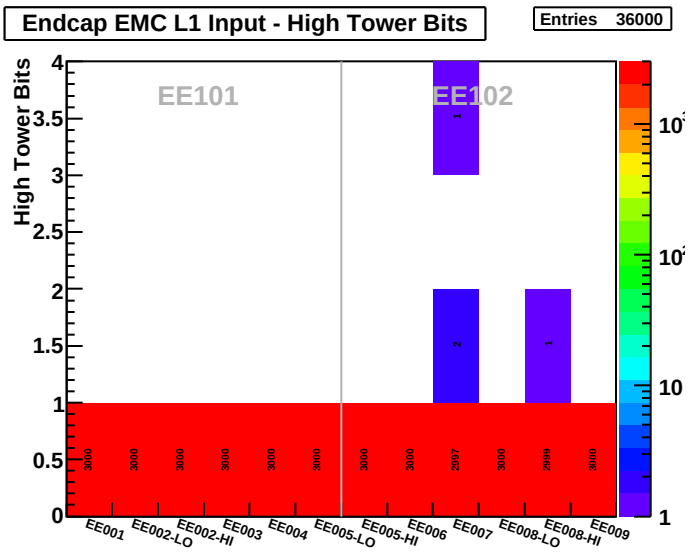

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

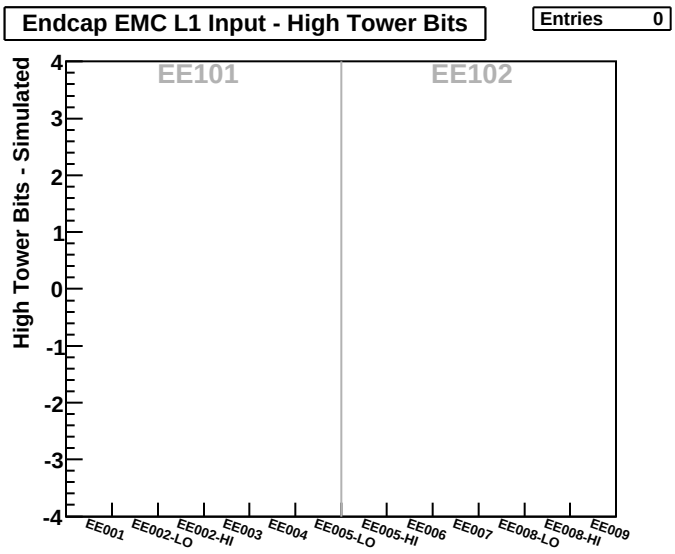

Endcap EMC L1 Input - Low Eta Sum
Entries 36000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

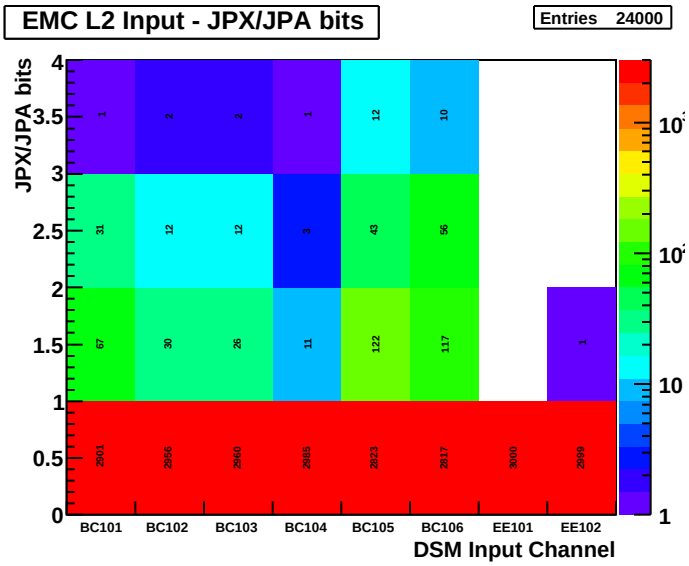

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

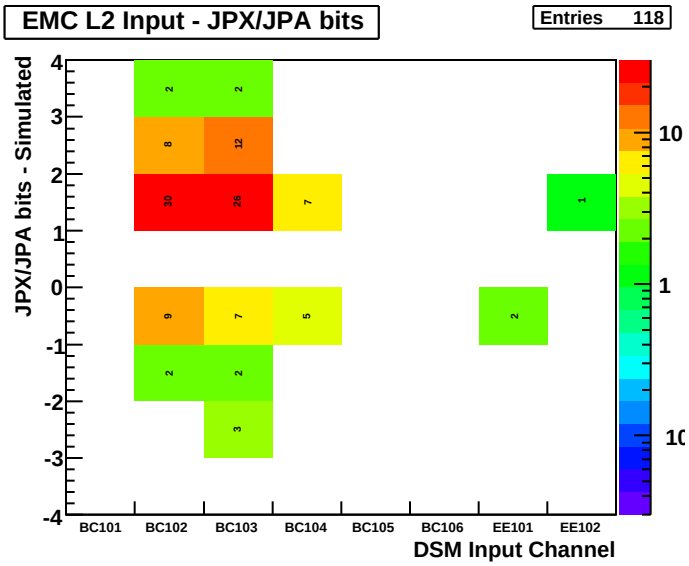

Endcap EMC L1 Input - High Eta Sum
Entries 36000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

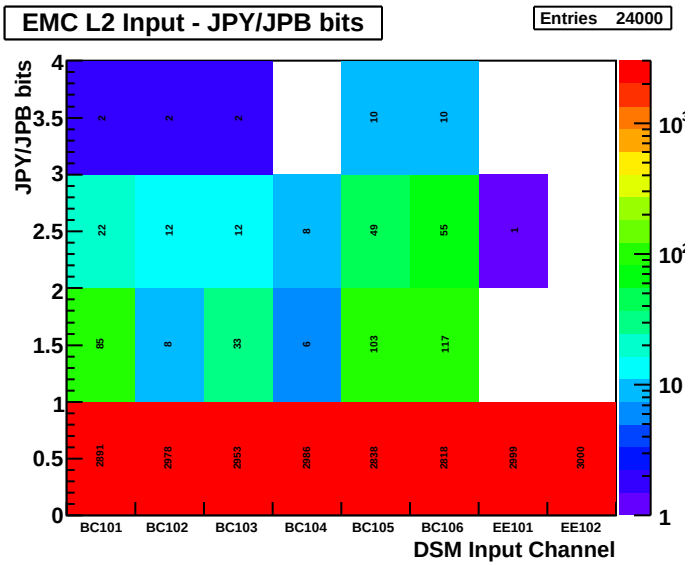

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

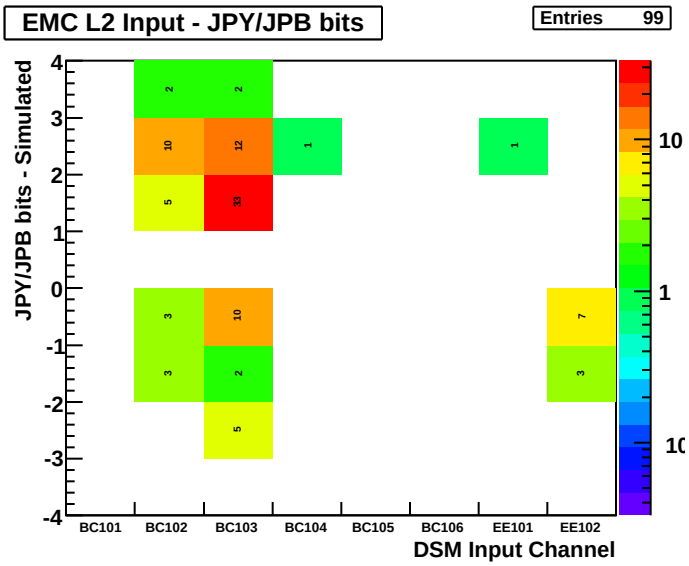

Endcap EMC L1 Input - High Tower Bits
Entries 36000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

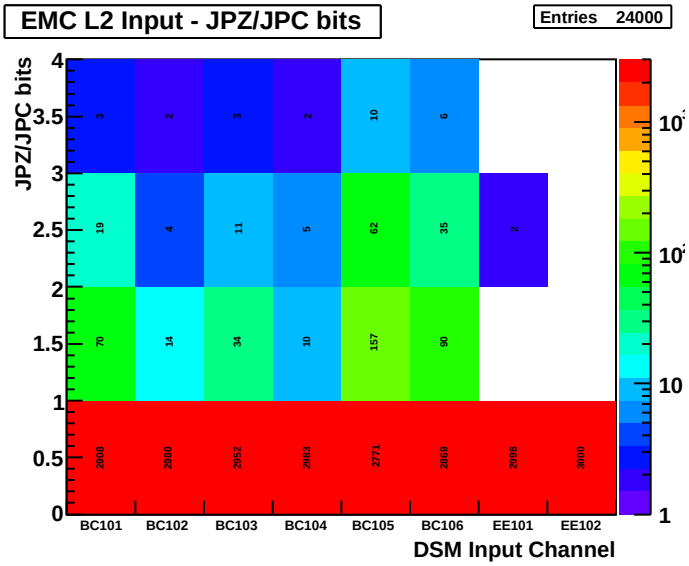

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

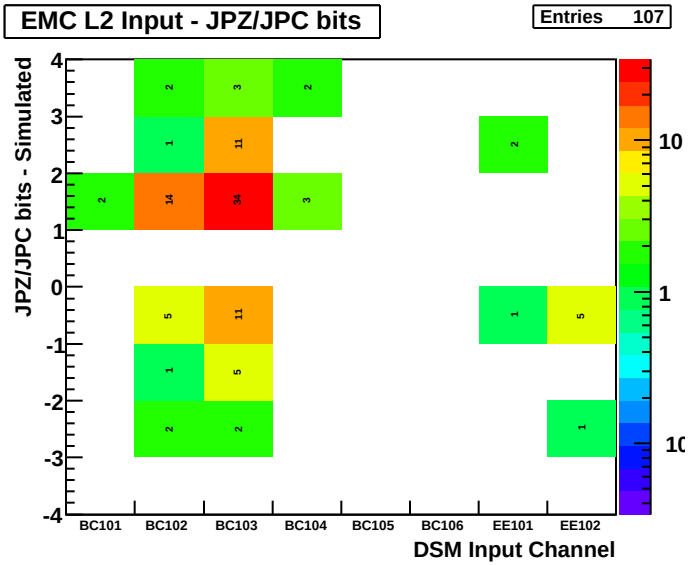

EMC L2 Input - JPX/JPA bits
Entries 24000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

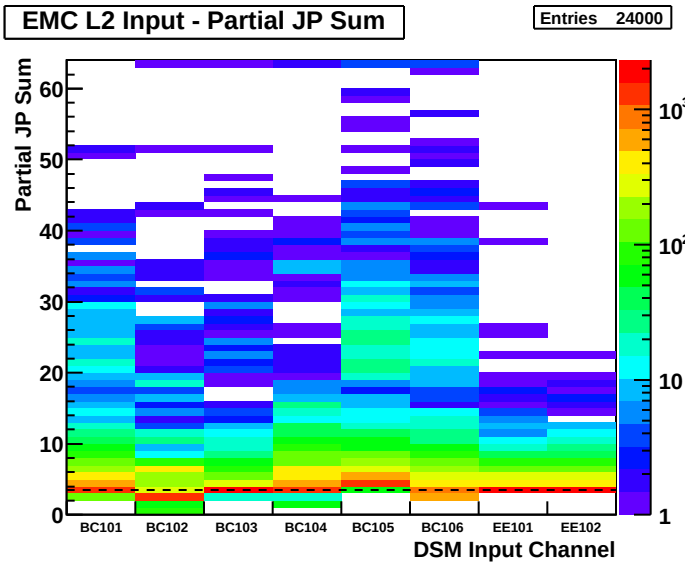

EMC L2 Input - JPX/JPA bits
Entries 118
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

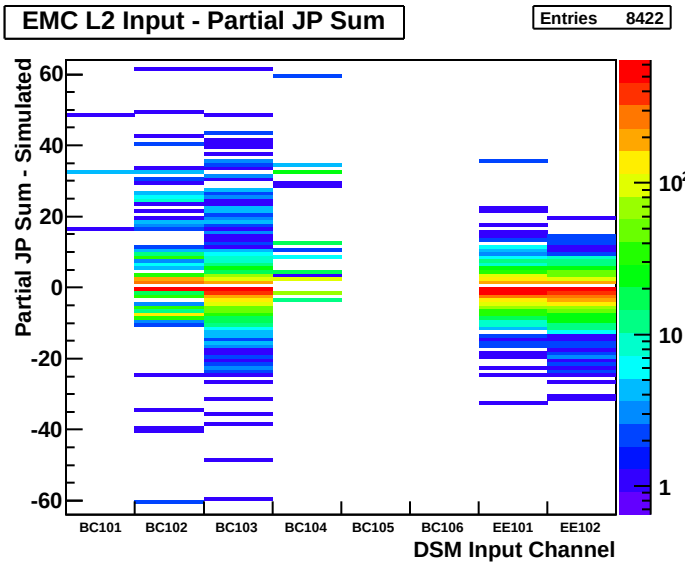

EMC L2 Input - JPY/JPB bits
Entries 24000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

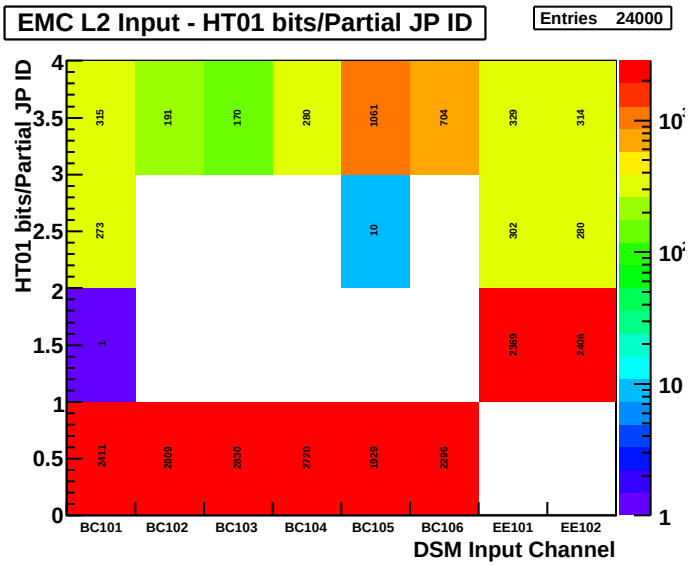

EMC L2 Input - JPY/JPB bits
Entries 99
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

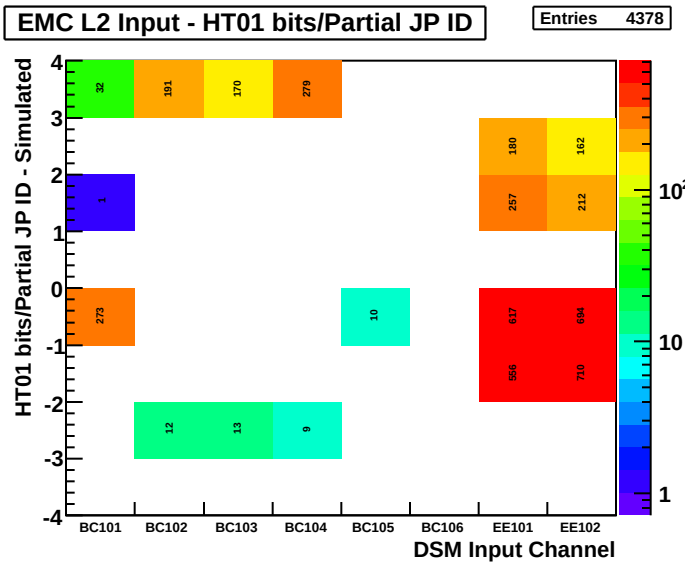

EMC L2 Input - JPZ/JPC bits
Entries 24000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

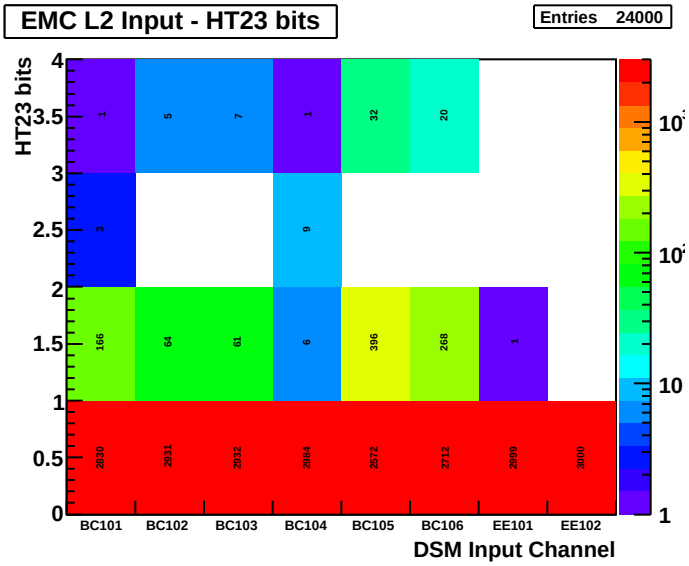

EMC L2 Input - JPZ/JPC bits
Entries 107
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

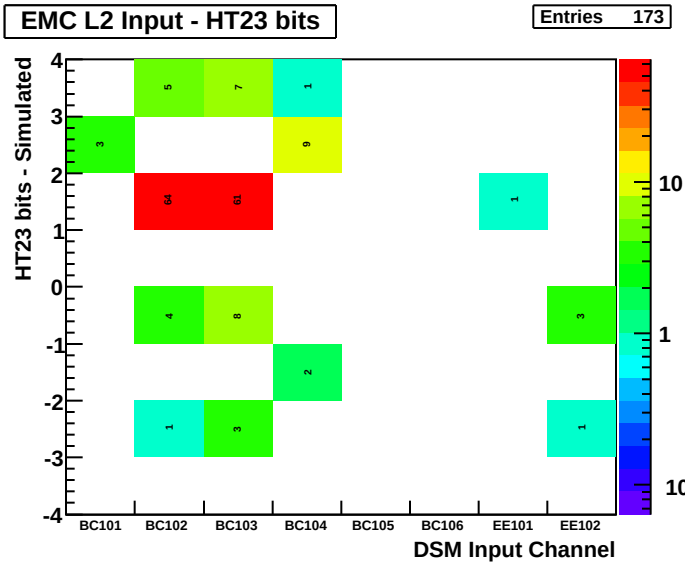

EMC L2 Input - Partial JP Sum
Entries 24000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

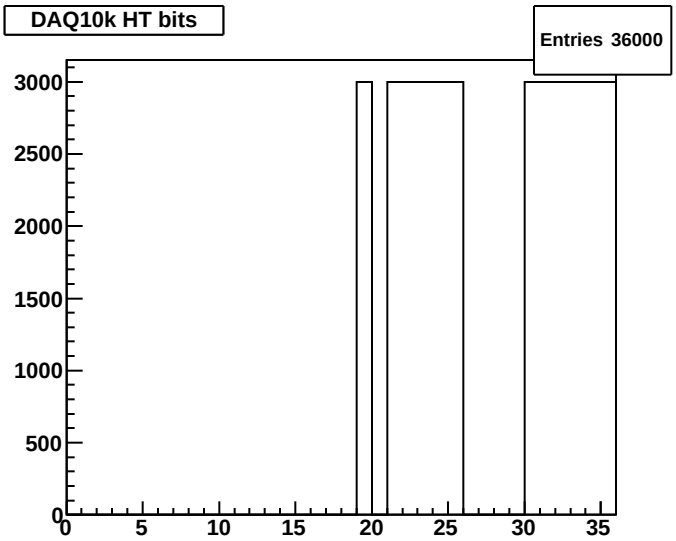

EMC L2 Input - Partial JP Sum
Entries 8422
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

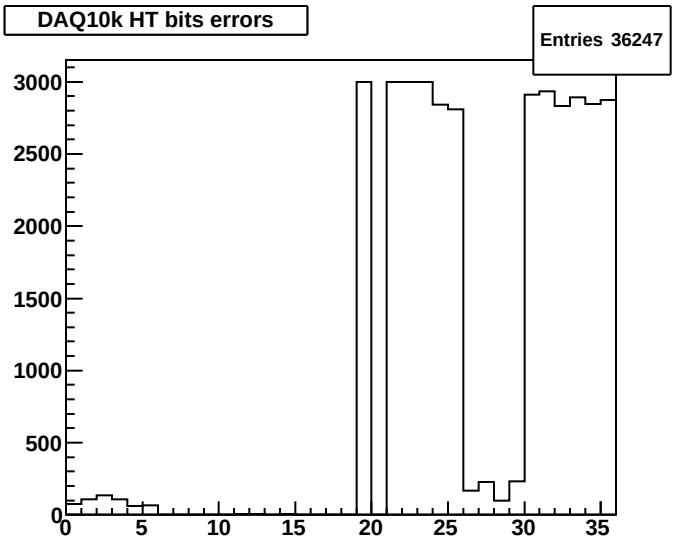

EMC L2 Input - HT01 bits/Partial JP ID
Entries 24000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

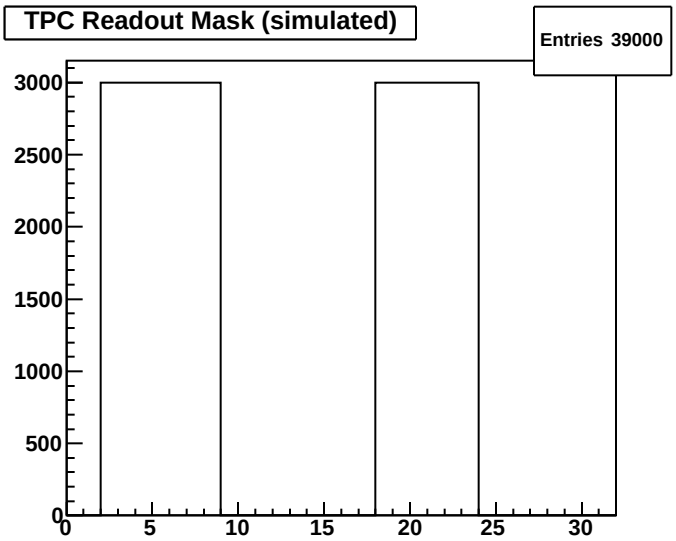

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4378
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

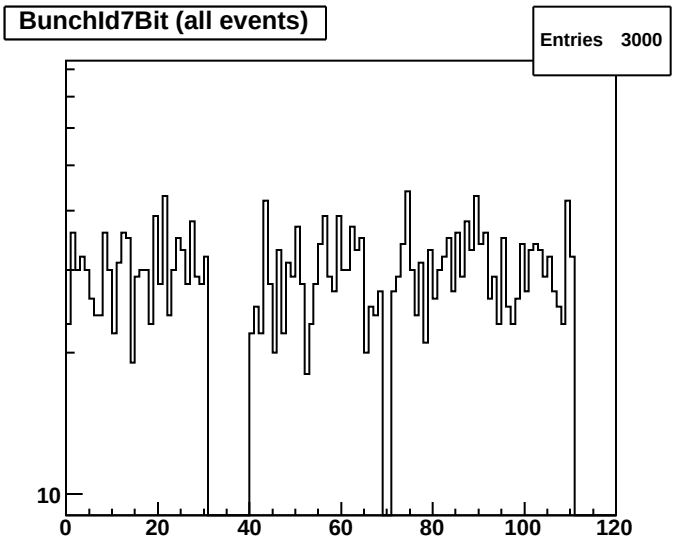

EMC L2 Input - HT23 bits
Entries 24000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

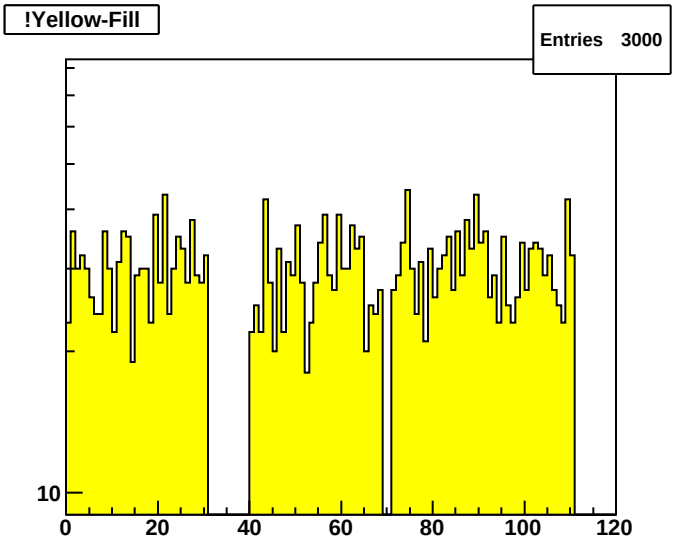

EMC L2 Input - HT23 bits
Entries 173
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

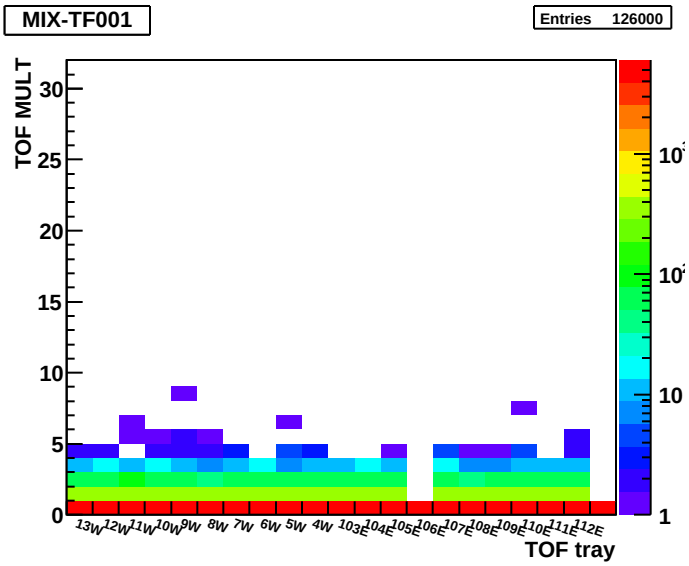

DAQ10k HT bits
Entries 36000
3000
2500
2000
1500
1000
500
0
0 5 10 15 20 25 30 35

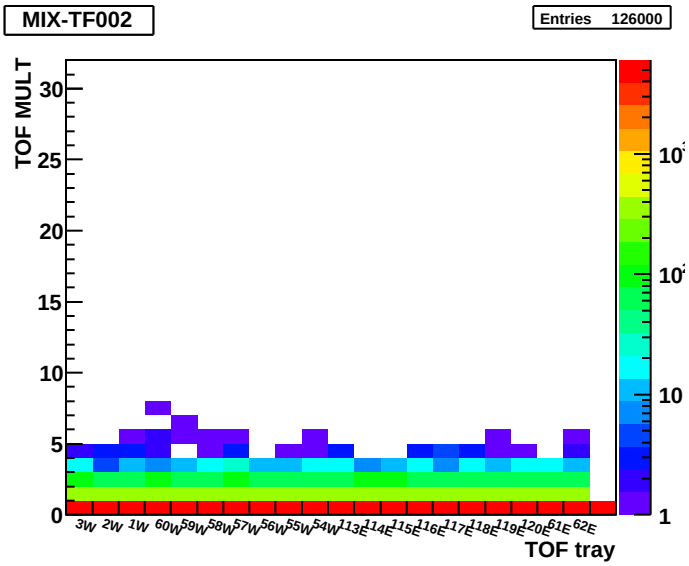

DAQ10k HT bits errors
Entries 36247
3000
2500
2000
1500
1000
500
0
0 5 10 15 20 25 30 35

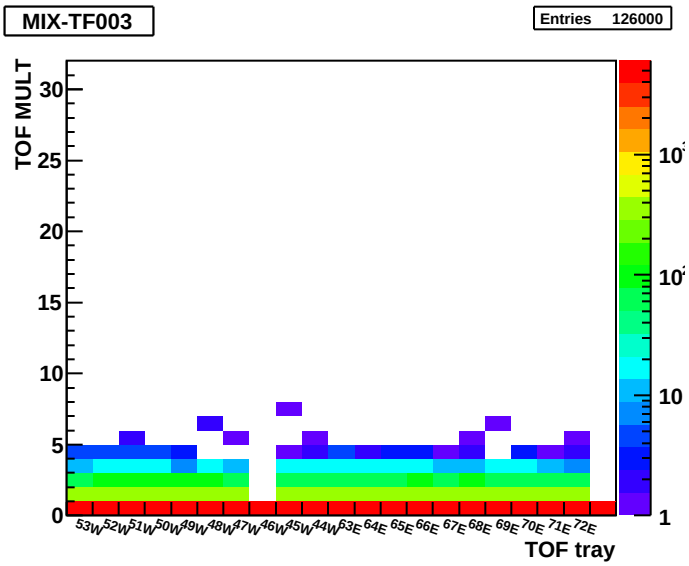

TPC Readout Mask (simulated)
Entries 39000
3000
2500
2000
1500
1000
500
0
0 5 10 15 20 25 30

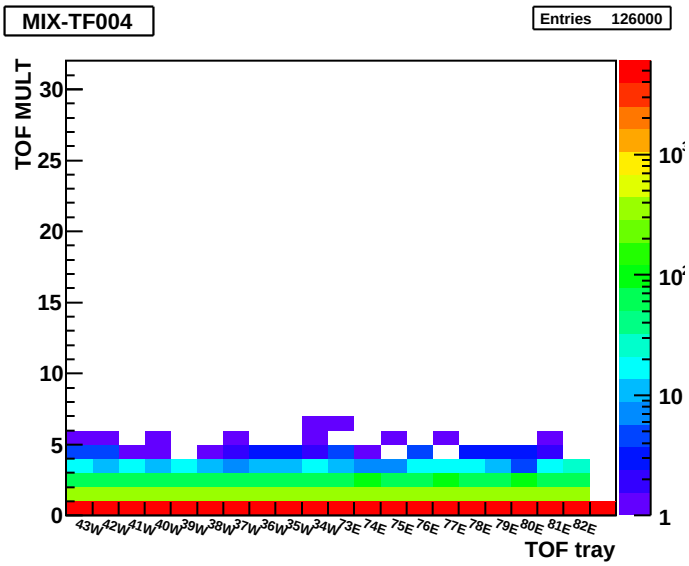

BunchId7Bit (all events)
Entries 3000
10
0 20 40 60 80 100 120

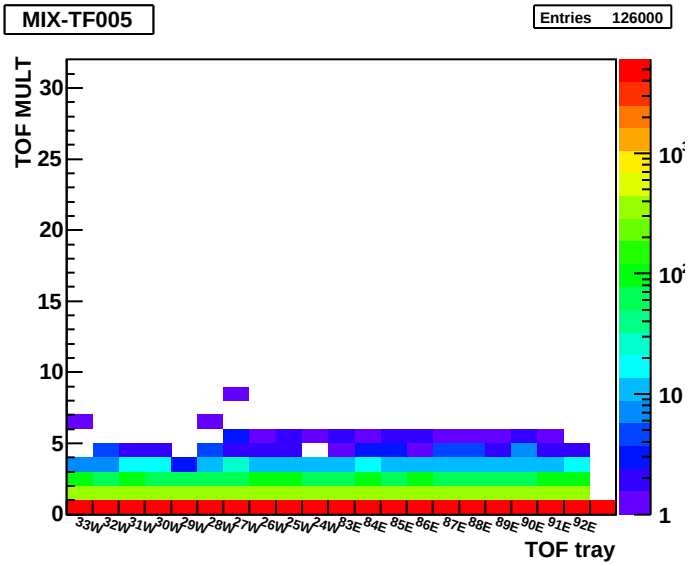

!Yellow-Fill
Entries 3000
10
0 20 40 60 80 100 120

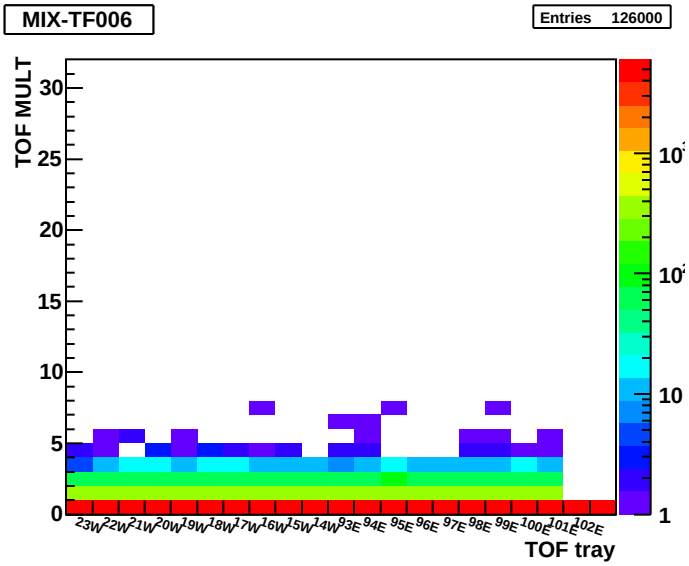

MIX-TF001
Entries 126000
TOF MULT
TOF tray

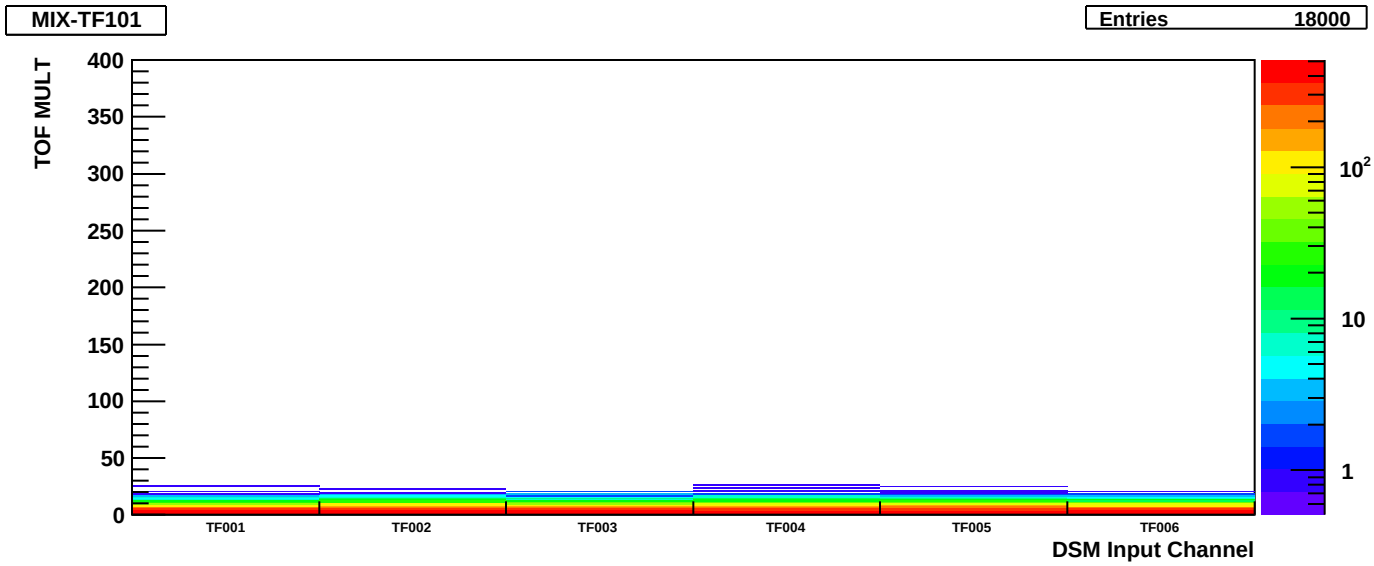

MIX-TF002
Entries 126000
TOF MULT
TOF tray

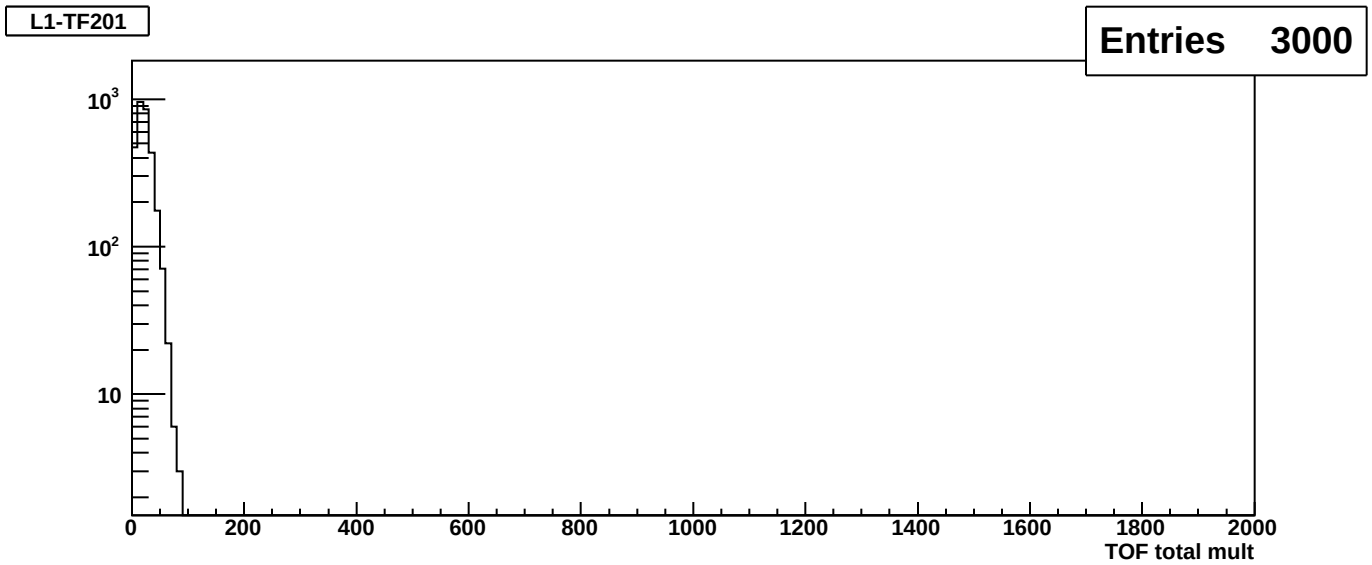

MIX-TF003
Entries 126000
TOF MULT
TOF tray

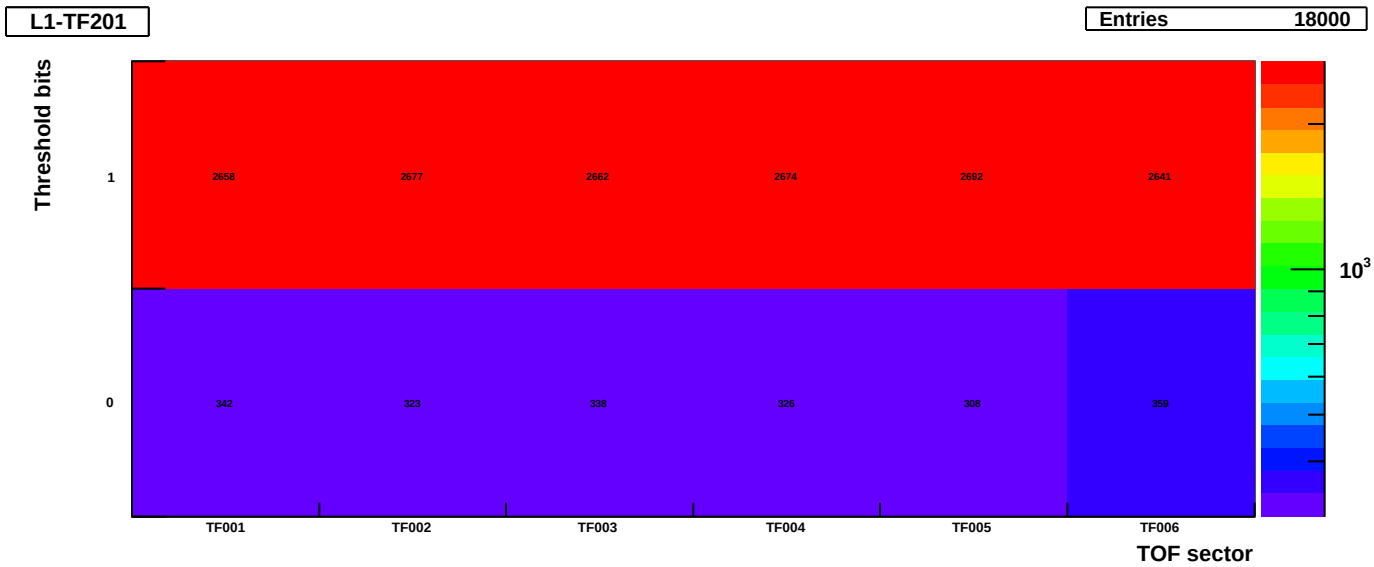

MIX-TF004
Entries 126000
TOF MULT
TOF tray

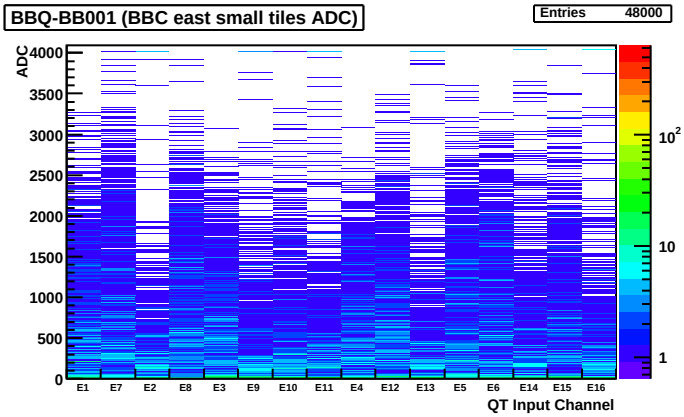

MIX-TF005
Entries 126000
TOF MULT
TOF tray

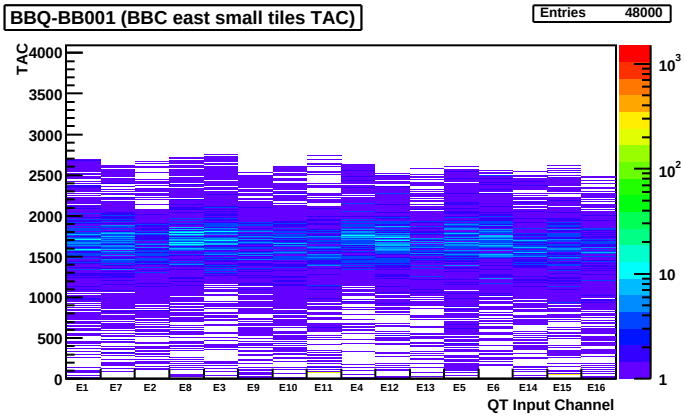

MIX-TF006
Entries 126000
TOF MULT
TOF tray

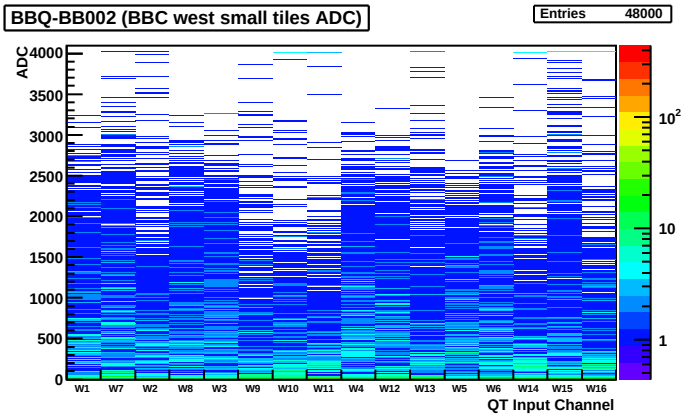

MIX-TF101
Entries 18000
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^2
10
1

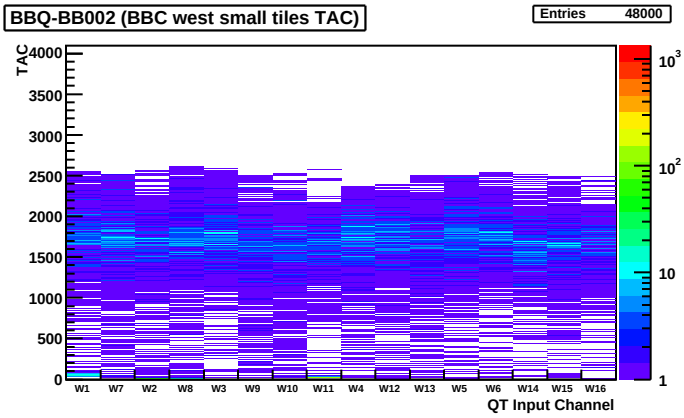

L1-TF201
Entries 3000
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

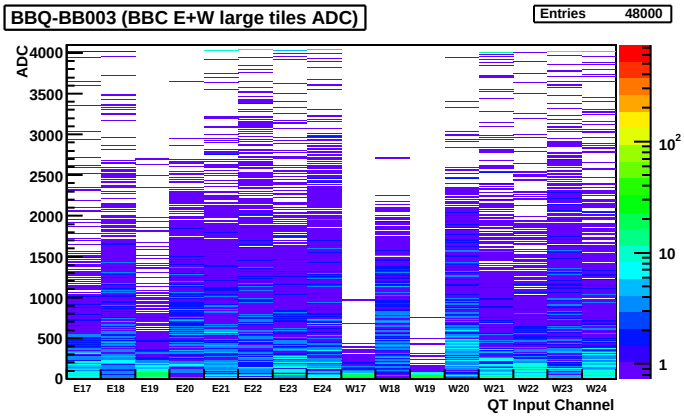

L1-TF201
Entries 18000
Threshold bits
1
0
2658
2677
2662
2674
2692
2641
342
323
338
326
308
359
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3

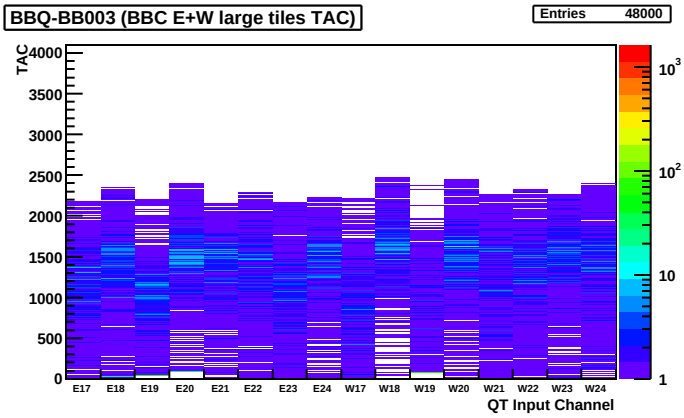

BBQ-BB001 (BBC east small tiles ADC)
Entries 48000
ADC
QT Input Channel

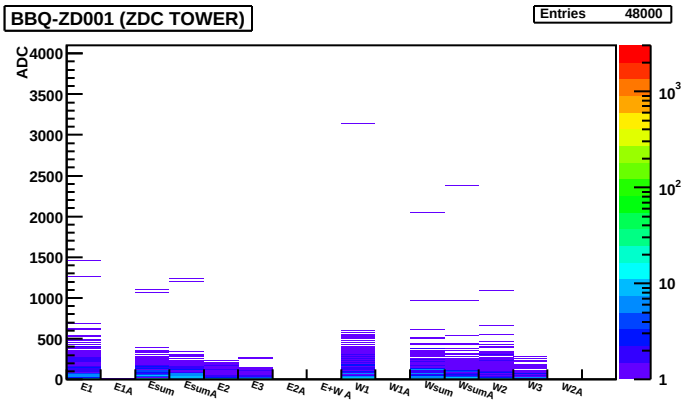

BBQ-BB001 (BBC east small tiles TAC)
Entries 48000
TAC
QT Input Channel

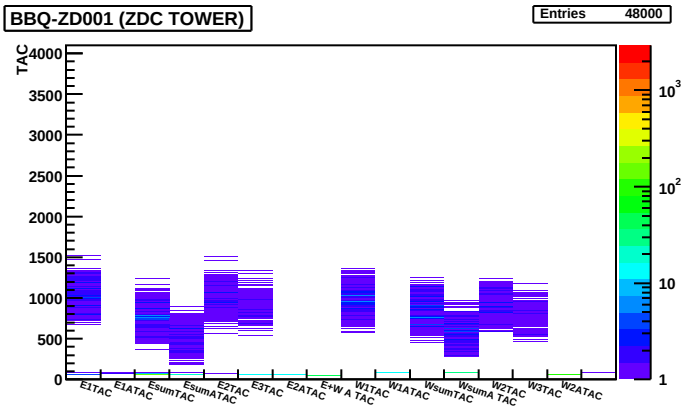

BBQ-BB002 (BBC west small tiles ADC)
Entries 48000
ADC
QT Input Channel

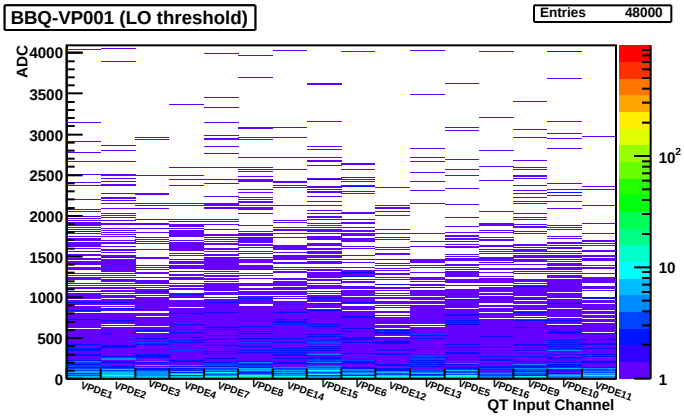

BBQ-BB002 (BBC west small tiles TAC)
Entries 48000
TAC
QT Input Channel

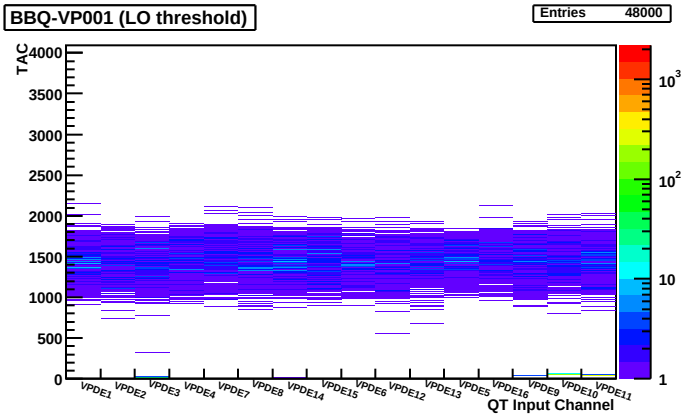

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 48000
ADC
QT Input Channel

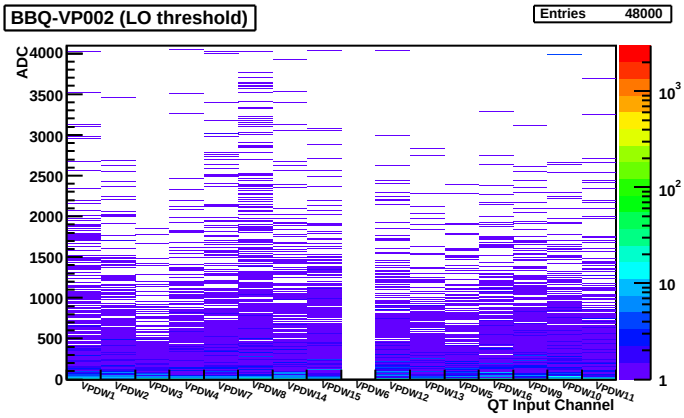

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 48000
TAC
QT Input Channel

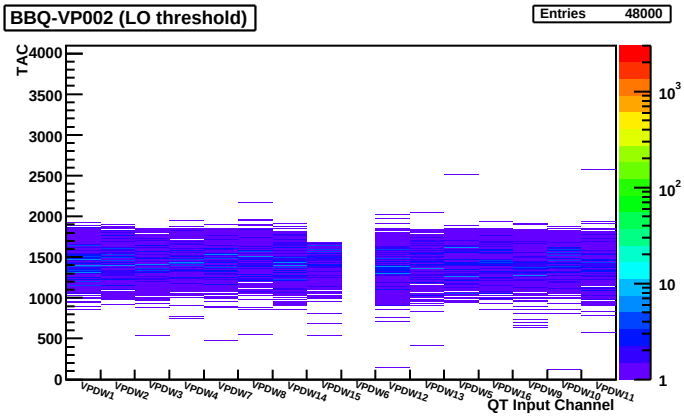

BBQ-ZD001 (ZDC TOWER)
Entries 48000
ADC

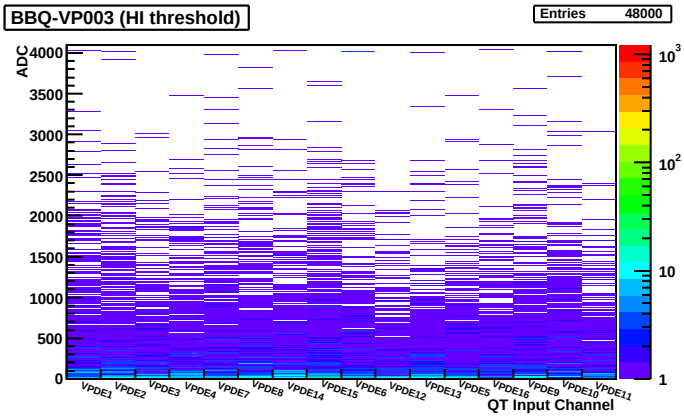

BBQ-ZD001 (ZDC TOWER)
Entries 48000
TAC

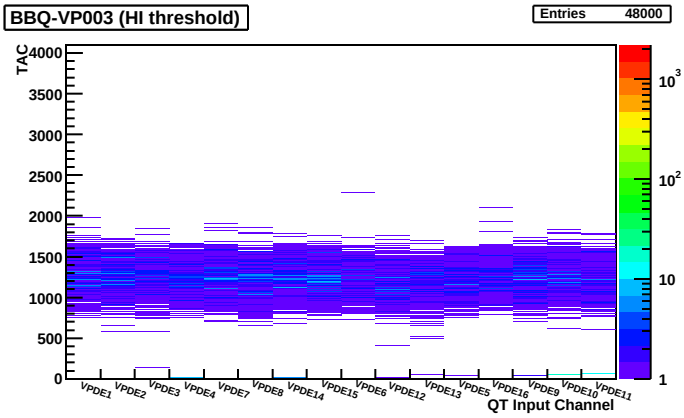

BBQ-VP001 (LO threshold)
Entries 48000
ADC
QT Input Channel

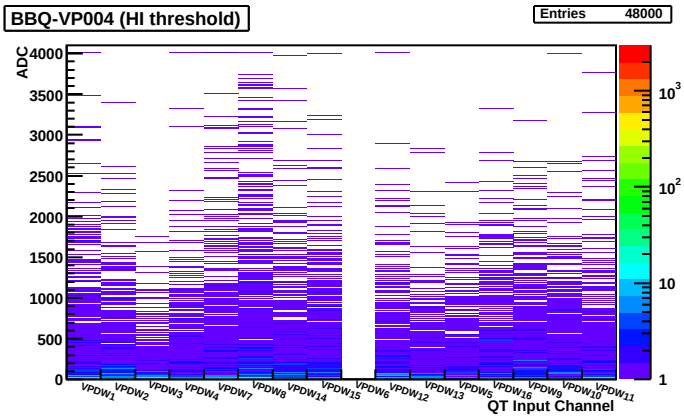

BBQ-VP001 (LO threshold)
Entries 48000
TAC
QT Input Channel

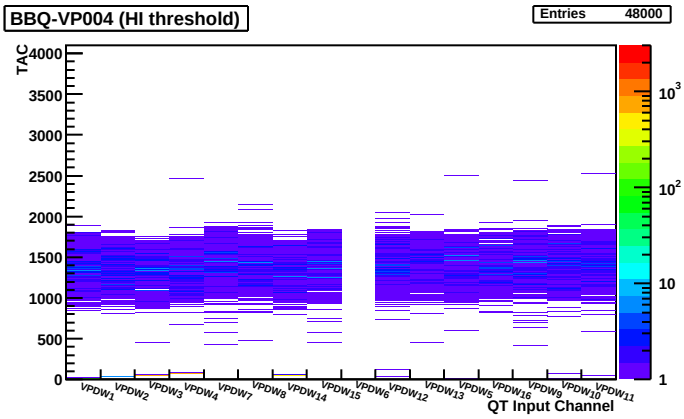

BBQ-VP002 (LO threshold)
Entries 48000
ADC
QT Input Channel

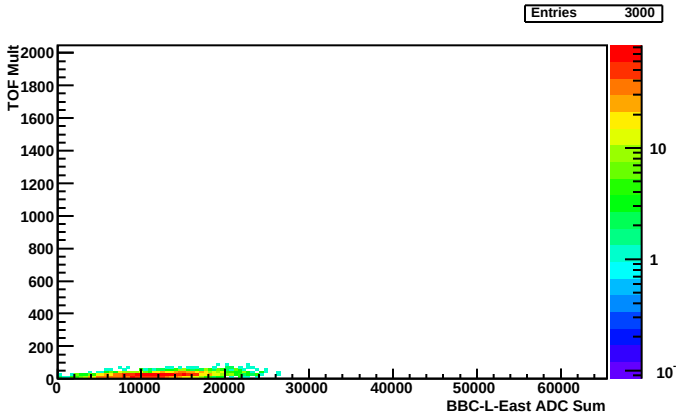

BBQ-VP002 (LO threshold)
Entries 48000
TAC
QT Input Channel

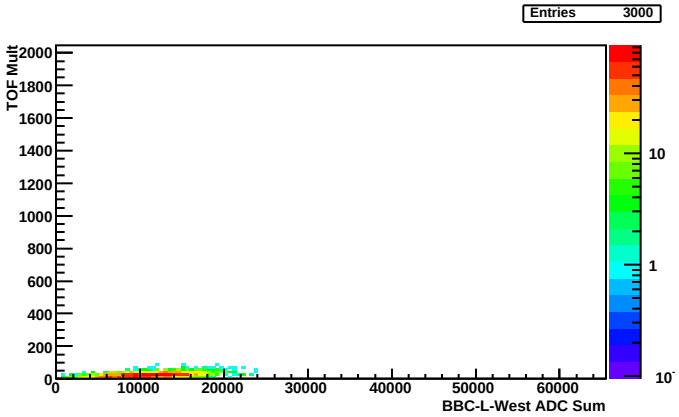

BBQ-VP003 (HI threshold)
Entries 48000
ADC
QT Input Channel

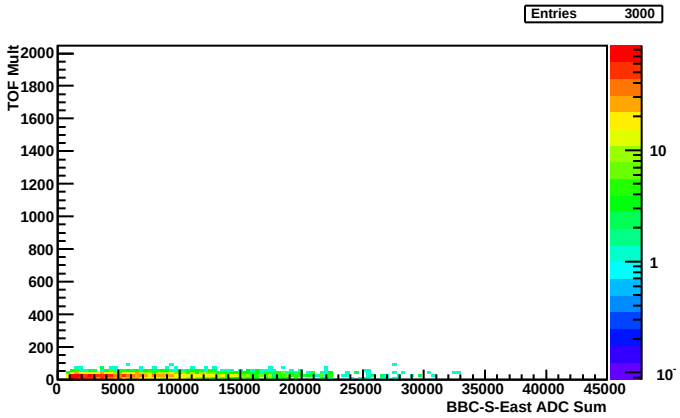

BBQ-VP003 (HI threshold)
Entries 48000
TAC
QT Input Channel

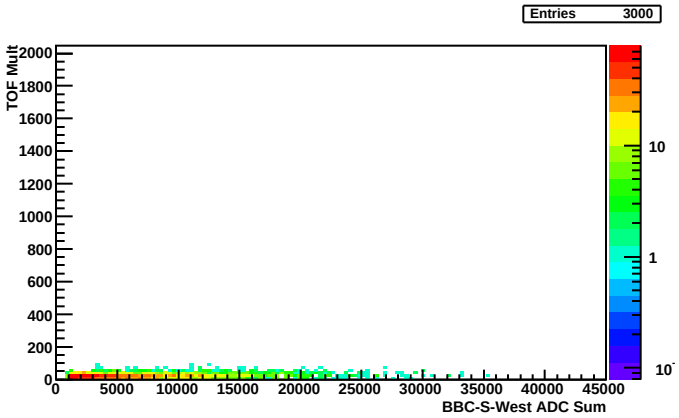

BBQ-VP004 (HI threshold)
Entries 48000
ADC
QT Input Channel

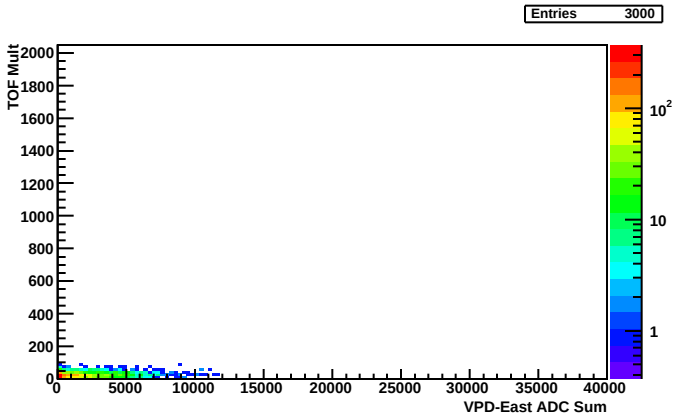

BBQ-VP004 (HI threshold)
Entries 48000
TAC
QT Input Channel

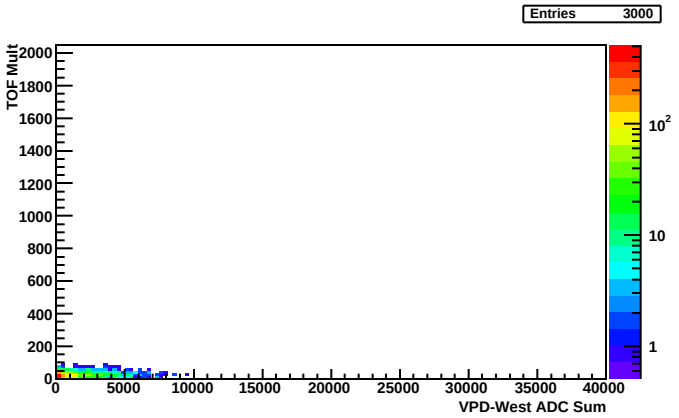

Entries 3000
TOF Mult
BBC-L-East ADC Sum

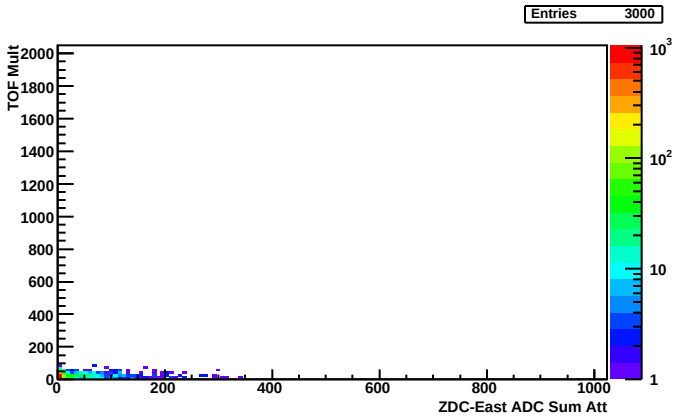

Entries 3000
TOF Mult
BBC-L-West ADC Sum

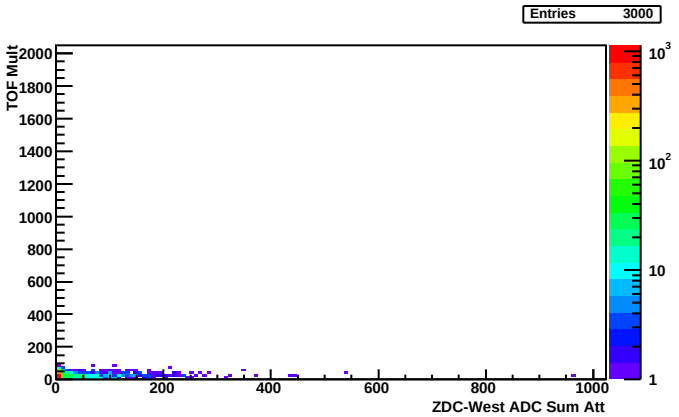

Entries 3000
TOF Mult
BBC-S-East ADC Sum

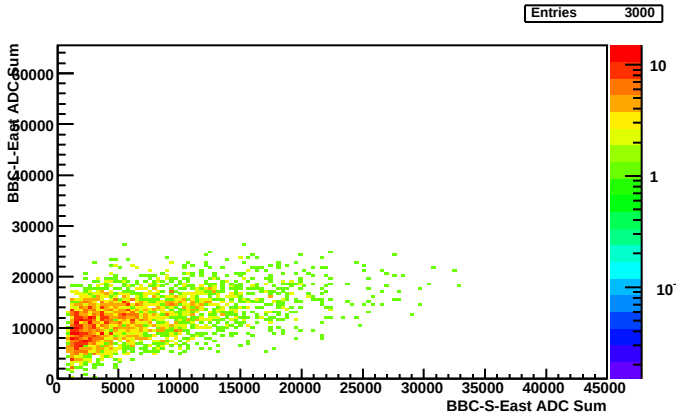

Entries 3000
TOF Mult
BBC-S-West ADC Sum

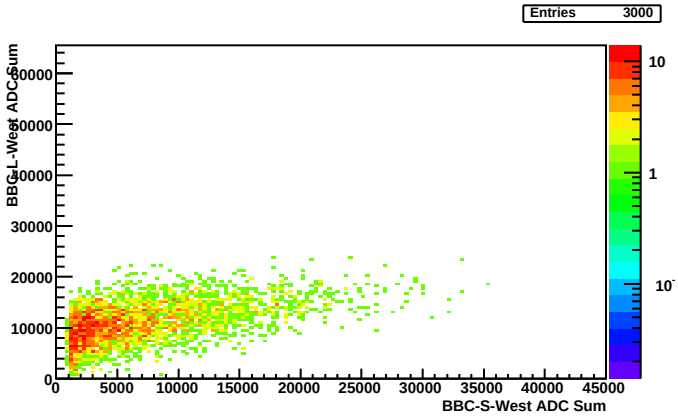

Entries 3000
TOF Mult
VPD-East ADC Sum

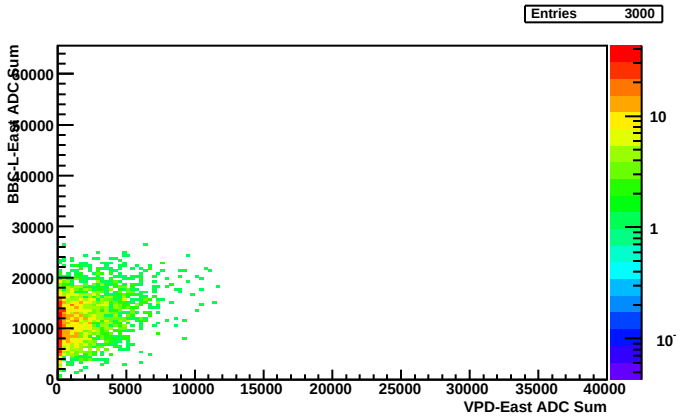

Entries 3000
TOF Mult
VPD-West ADC Sum

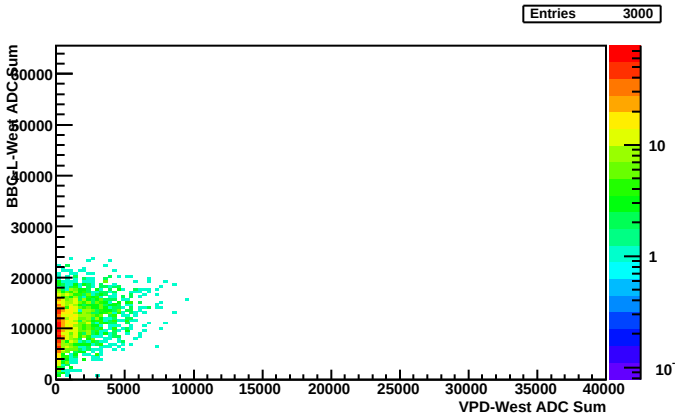

Entries 3000
TOF Mult
ZDC-East ADC Sum Att

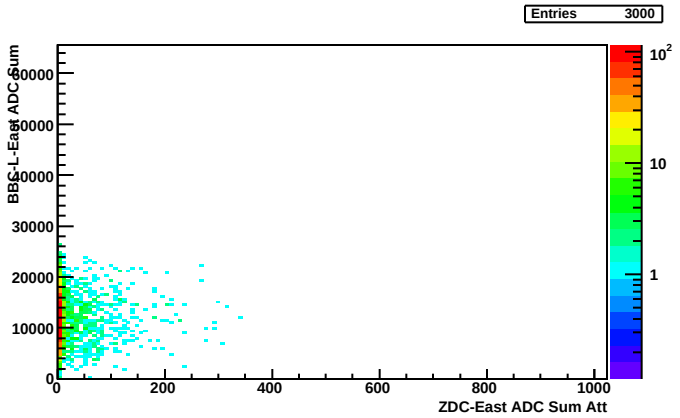

Entries 3000
TOF Mult
ZDC-West ADC Sum Att

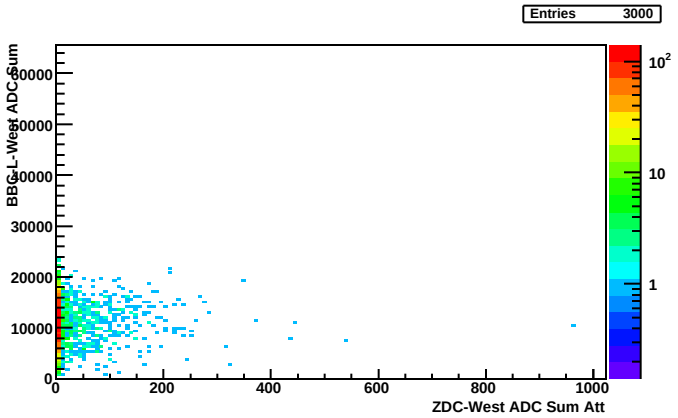

Entries 3000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

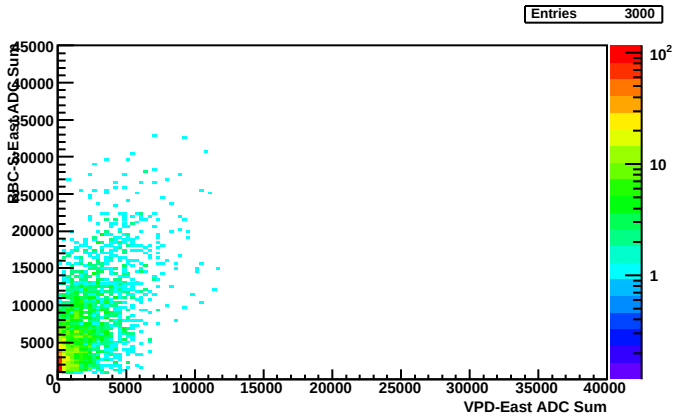

Entries 3000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

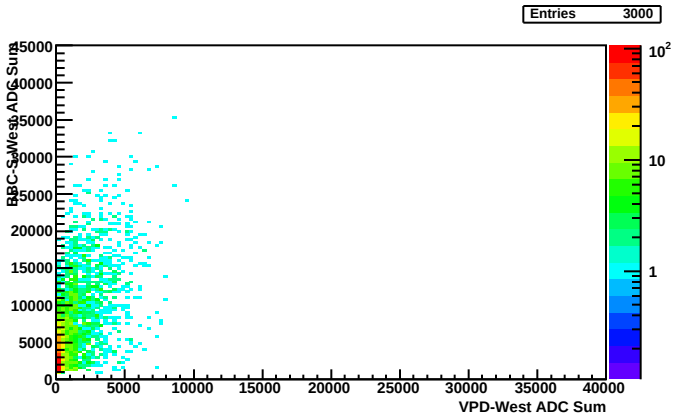

Entries 3000
BBC-L-East ADC Sum
VPD-East ADC Sum

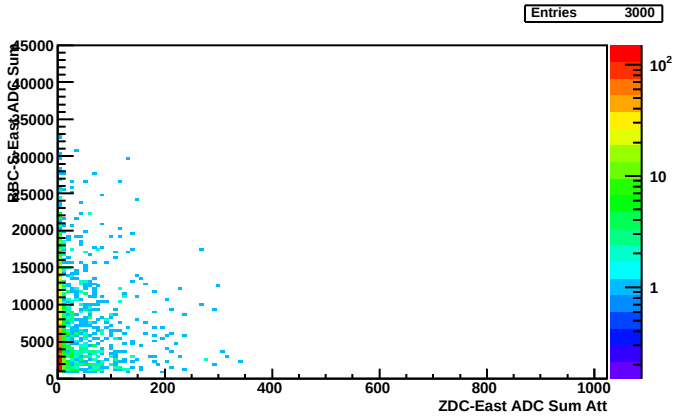

Entries 3000
BBC-L-West ADC Sum
VPD-West ADC Sum

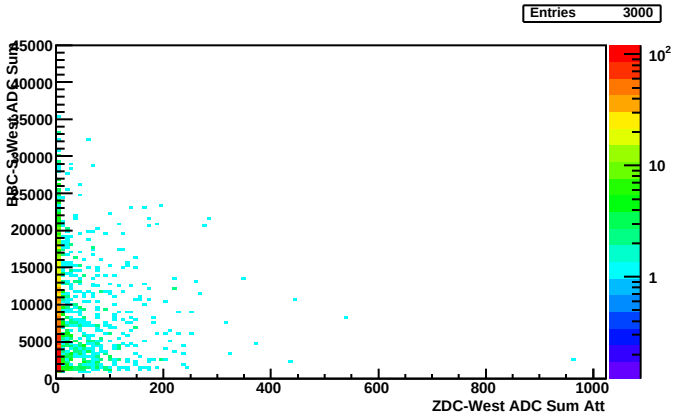

Entries 3000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

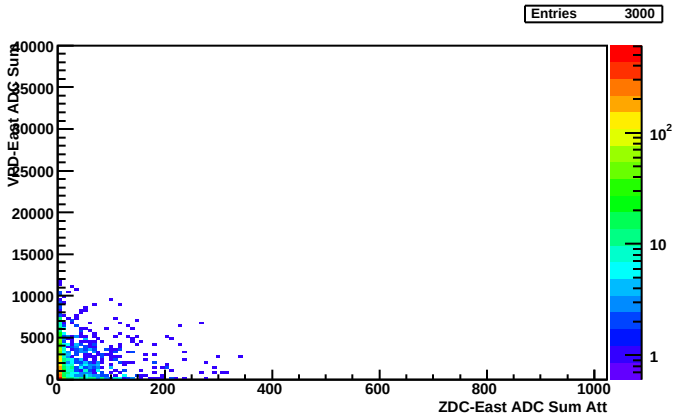

Entries 3000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

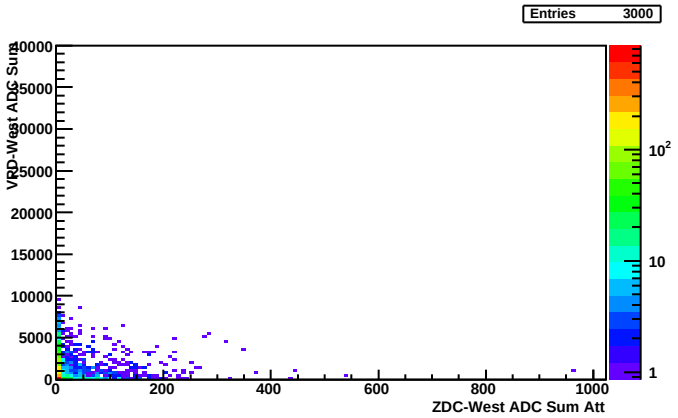

Entries 3000
BBC-S-East ADC Sum
VPD-East ADC Sum

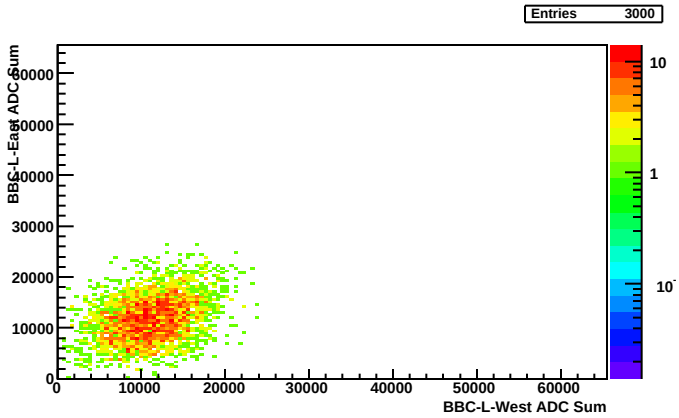

Entries 3000
BBC-S-West ADC Sum
VPD-West ADC Sum

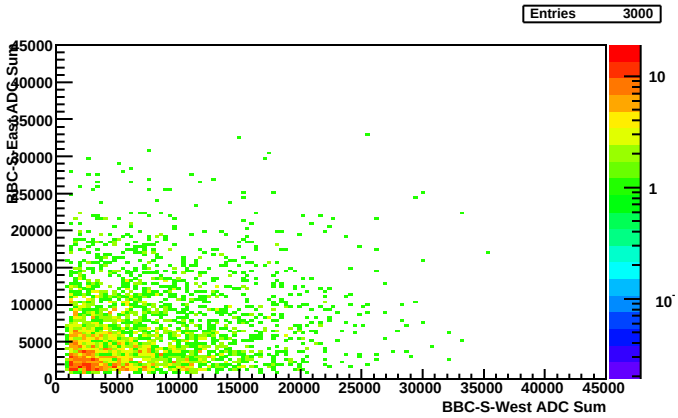

Entries 3000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

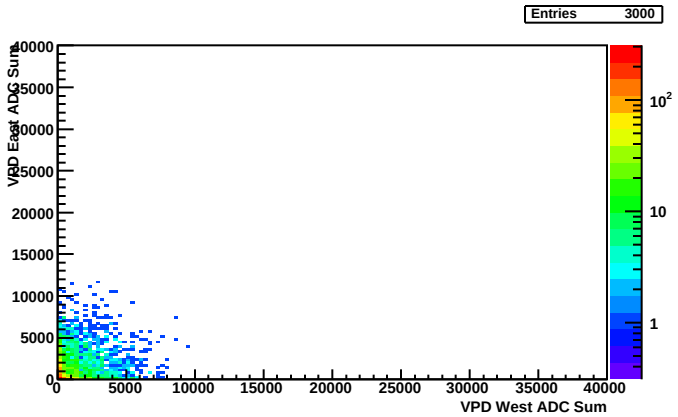

Entries 3000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

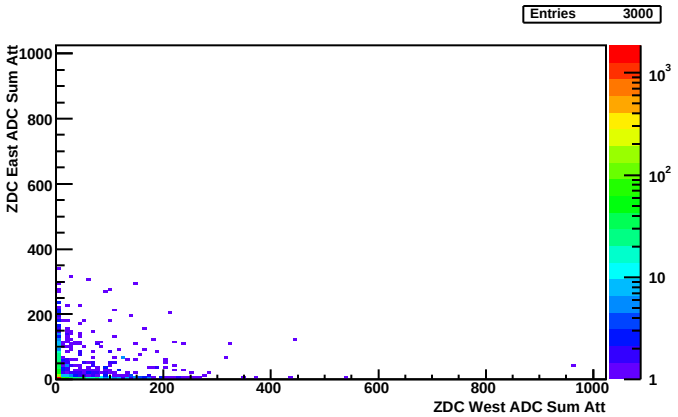

Entries 3000
VPD-East ADC Sum
ZDC-East ADC Sum Att

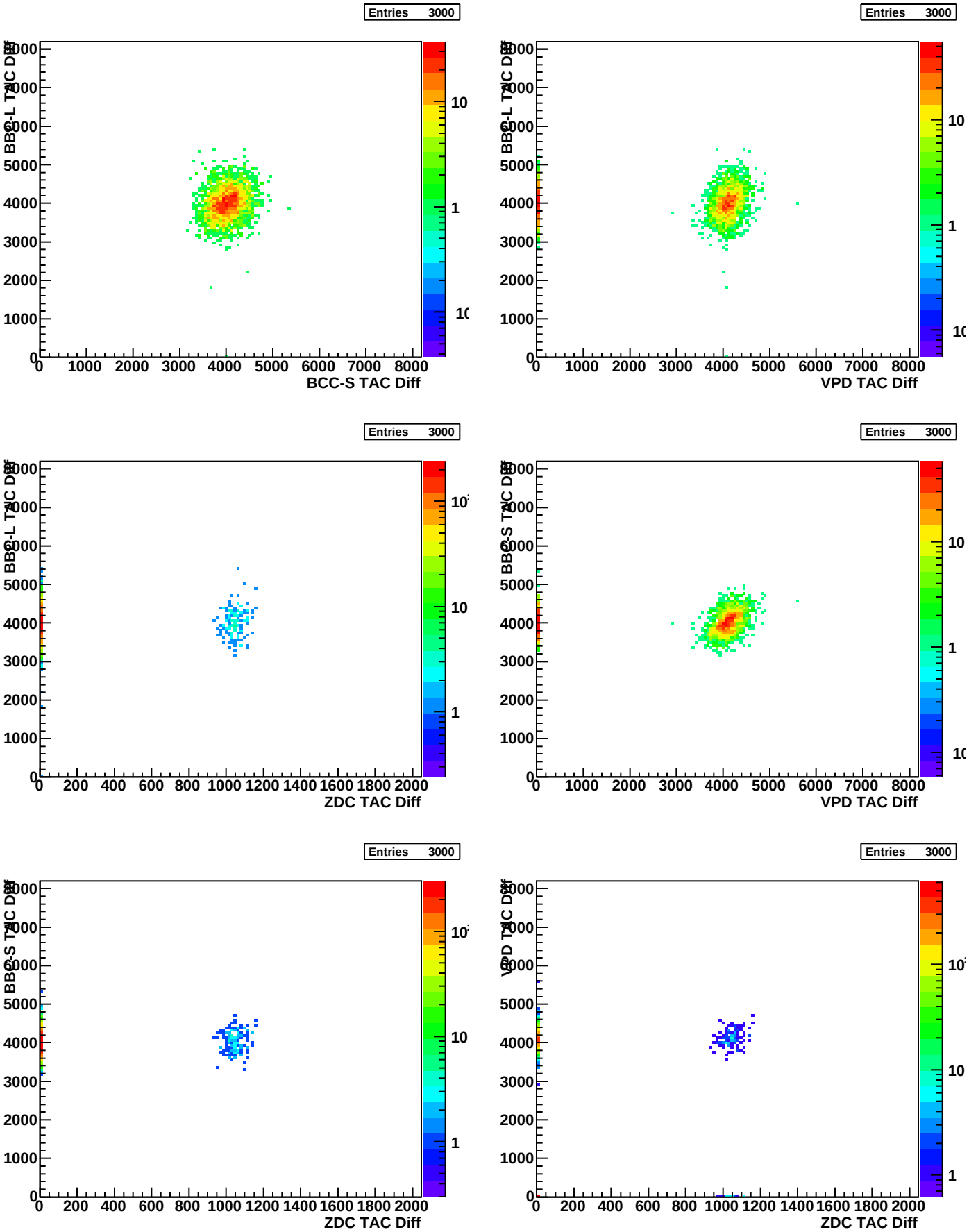

Entries 3000
VPD-West ADC Sum
ZDC-West ADC Sum Att

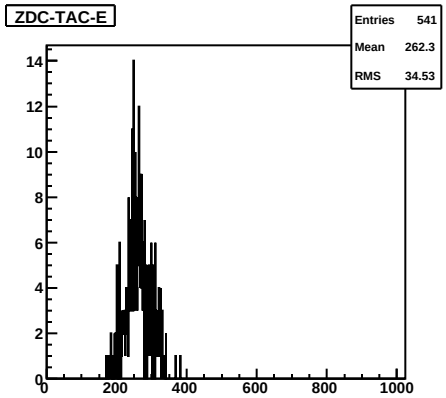

Entries 3000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

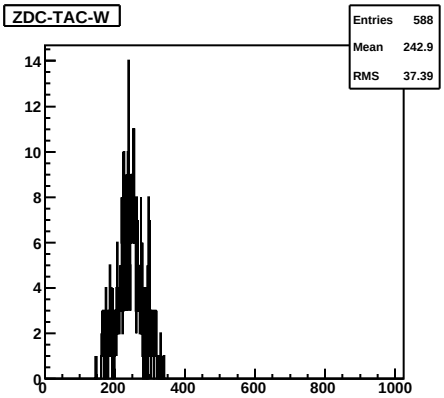

Entries 3000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

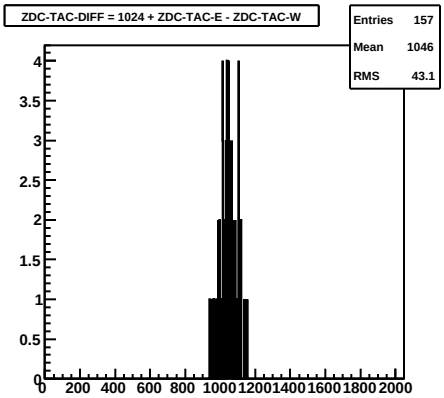

Entries 3000
VPD East ADC Sum
VPD West ADC Sum

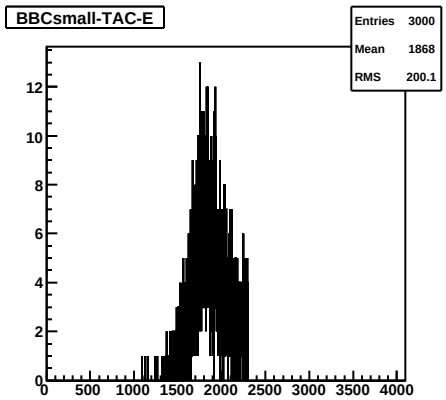

Entries 3000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

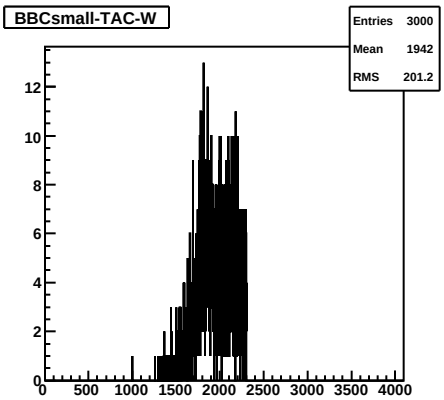

Entries 3000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 3000
BBC-L TAC Diff
VPD TAC Diff
Entries 3000
BBC-L TAC Diff
ZDC TAC Diff
Entries 3000
BBC-S TAC Diff
VPD TAC Diff
Entries 3000
BBC-S TAC Diff
ZDC TAC Diff
Entries 3000
VPD TAC Diff
ZDC TAC Diff

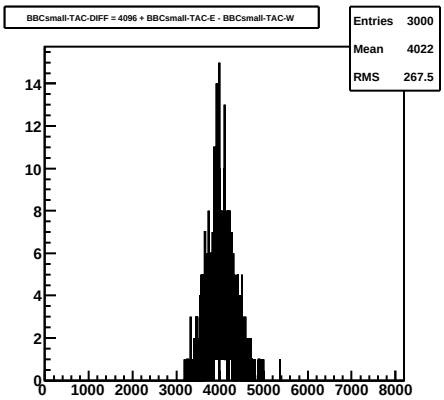

ZDC-TAC-E
Entries 541
Mean 262.3
RMS 34.53

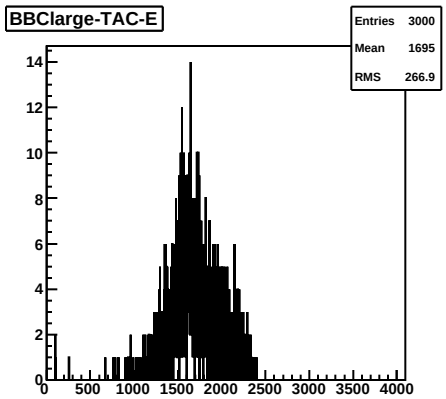

ZDC-TAC-W
Entries 588
Mean 242.9
RMS 37.39

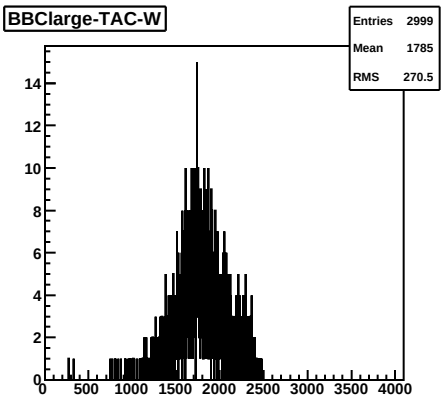

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 157
Mean 1046
RMS 43.1

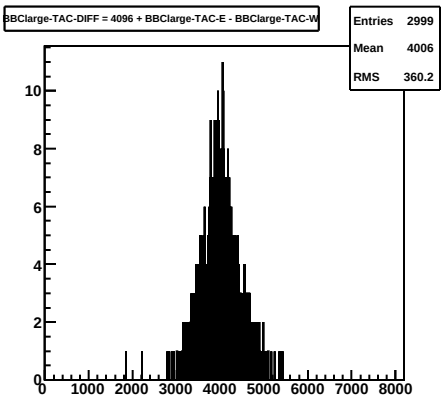

BBCsmall-TAC-E
Entries 3000
Mean 1868
RMS 200.1

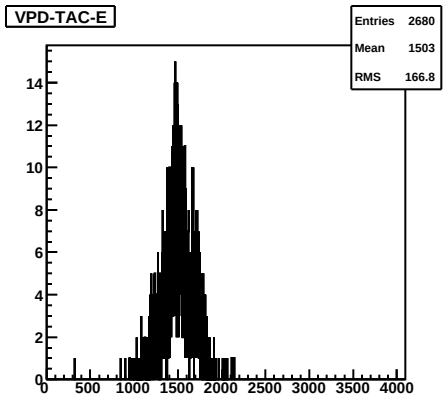

BBCsmall-TAC-W
Entries 3000
Mean 1942
RMS 201.2

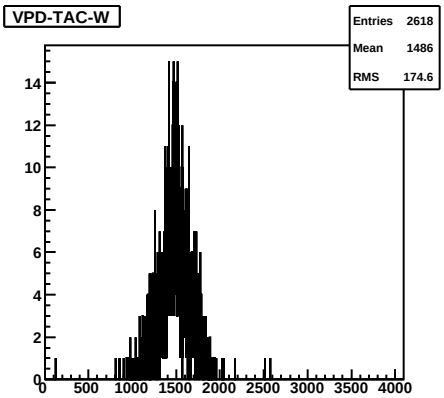

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 3000
Mean 4022
RMS 267.5

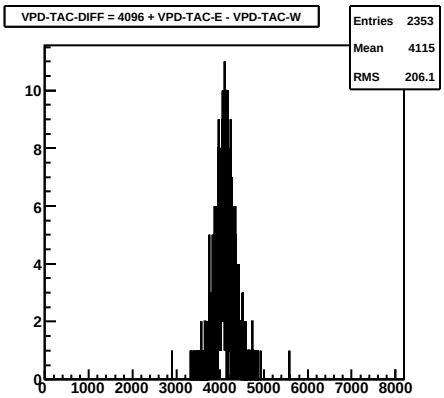

BBClarge-TAC-E
Entries 3000
Mean 1695
RMS 266.9

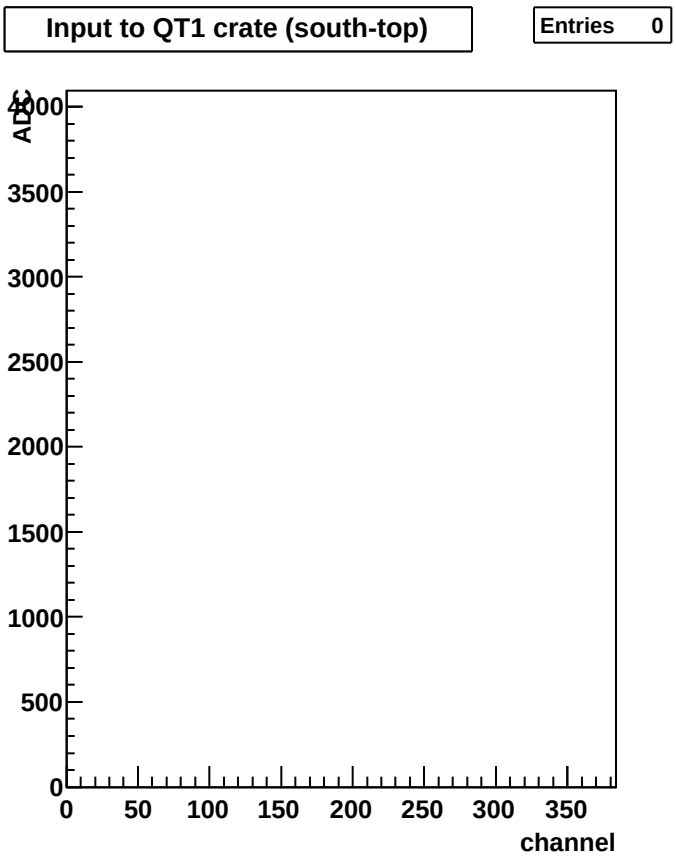

BBClarge-TAC-W
Entries 2999
Mean 1785
RMS 270.5

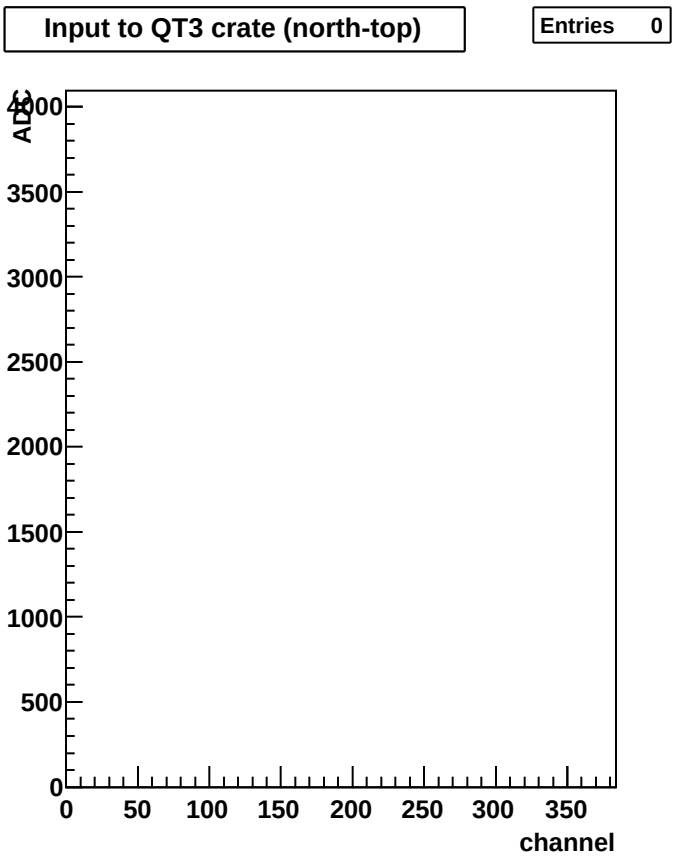

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2999
Mean 4006
RMS 360.2

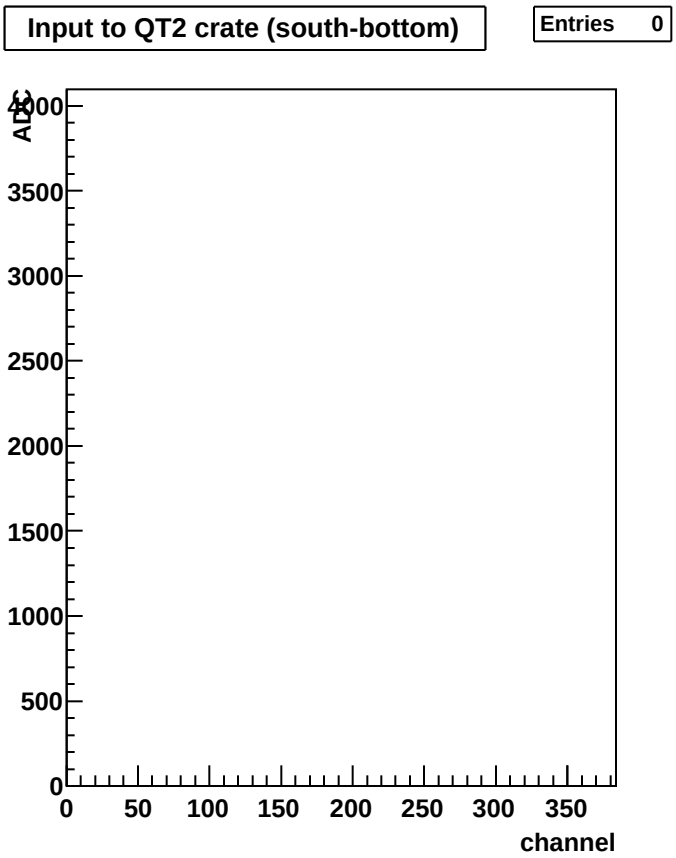

VPD-TAC-E
Entries 2680
Mean 1503
RMS 166.8

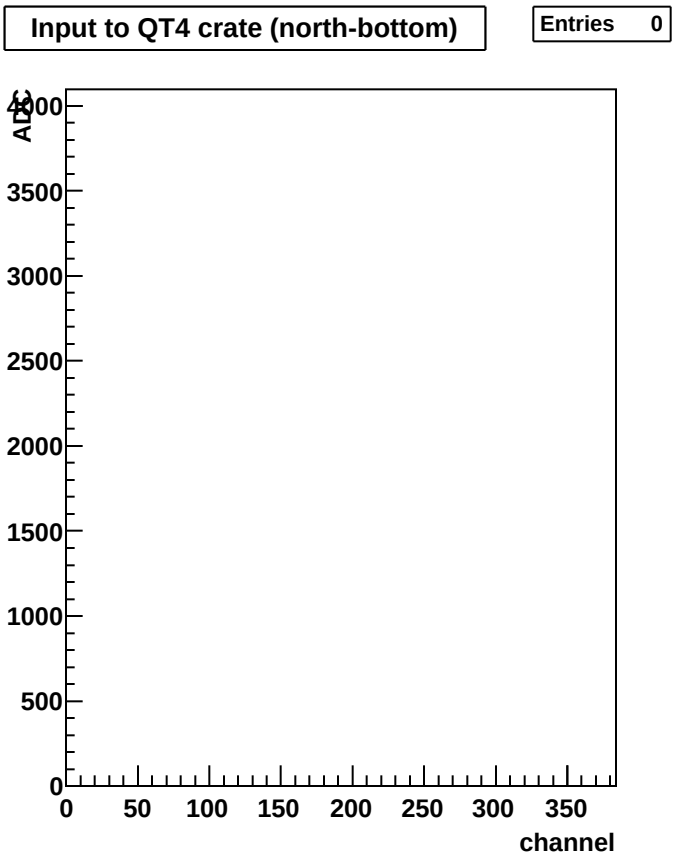

VPD-TAC-W
Entries 2618
Mean 1486
RMS 174.6

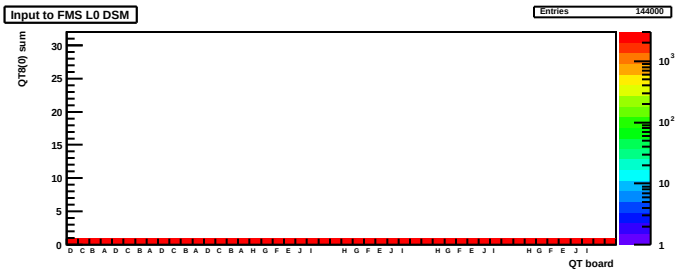

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 2353
Mean 4115
RMS 206.1

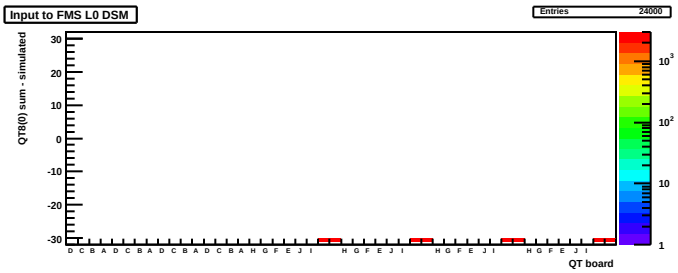

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

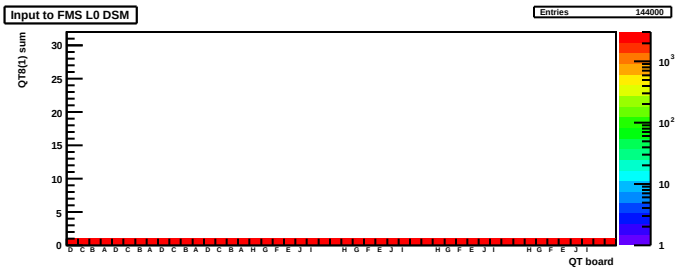

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

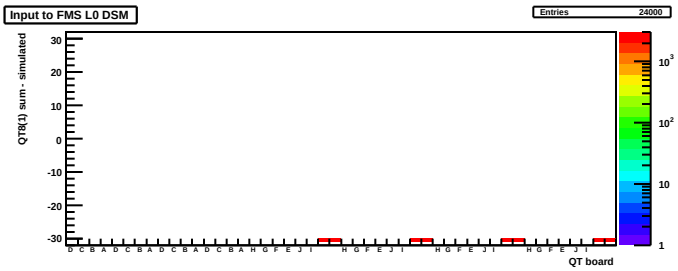

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

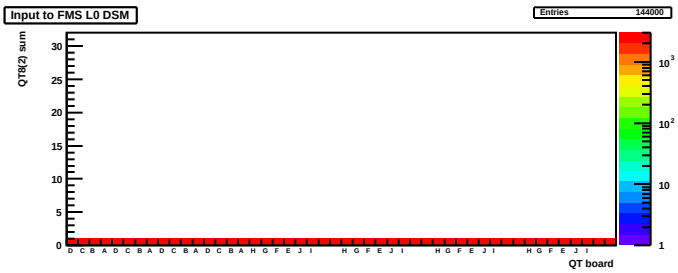

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

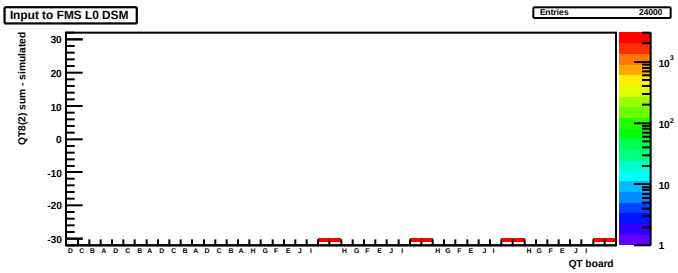

Input to FMS L0 DSM
Entries 144000
QT8(0) sum
QT board

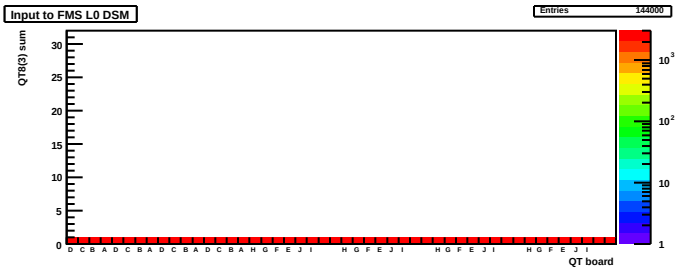

Input to FMS L0 DSM
Entries 24000
QT8(0) sum - simulated
QT board

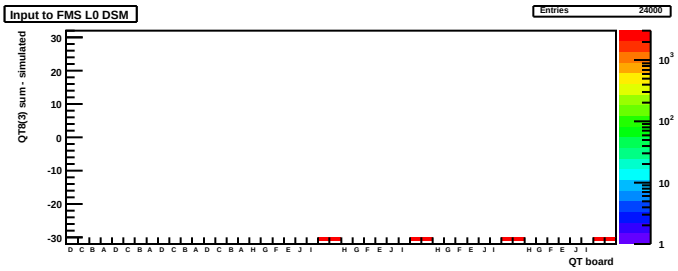

Input to FMS L0 DSM
Entries 144000
QT8(1) sum
QT board

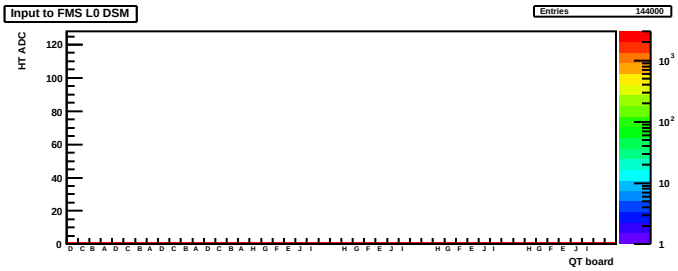

Input to FMS L0 DSM
Entries 24000
QT8(1) sum - simulated
QT board

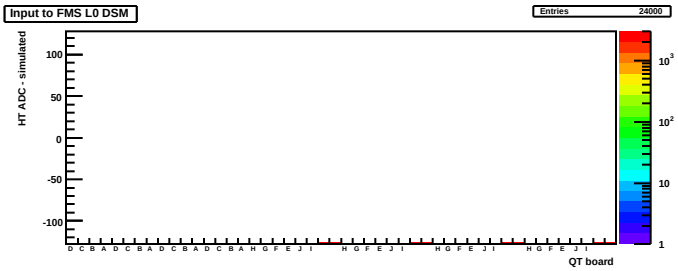

Input to FMS L0 DSM
Entries 144000
QT8(2) sum
QT board

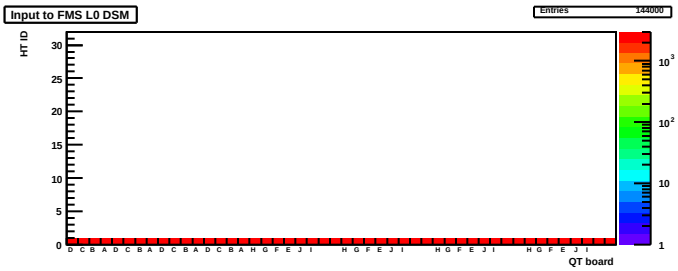

Input to FMS L0 DSM
Entries 24000
QT8(2) sum - simulated
QT board

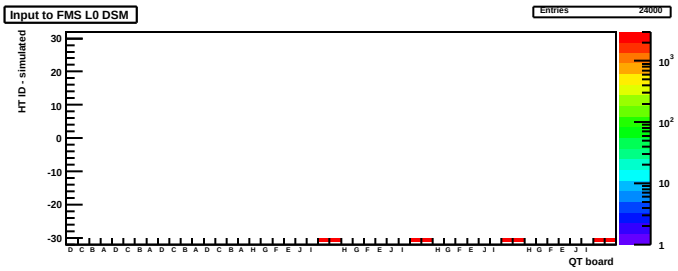

Input to FMS L0 DSM
Entries 144000
QT8(3) sum
QT board

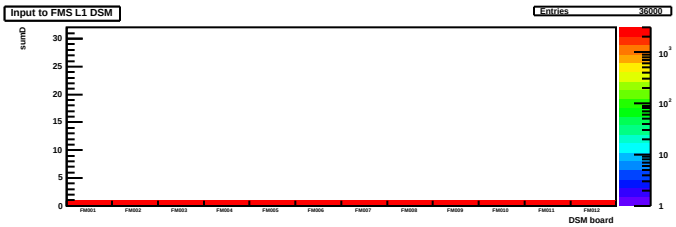

Input to FMS L0 DSM
Entries 24000
QT8(3) sum - simulated
QT board

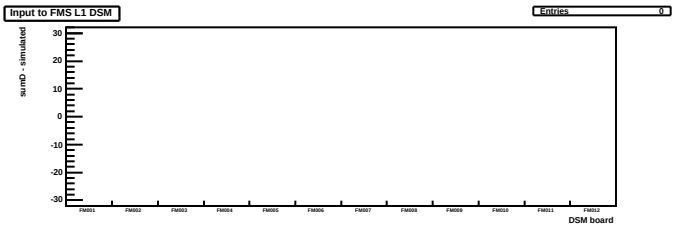

Input to FMS L0 DSM
Entries 144000
HT ADC
QT board

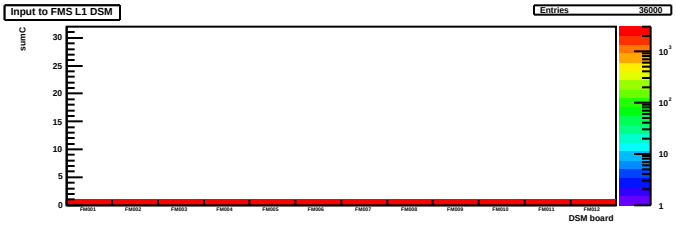

Input to FMS L0 DSM
Entries 24000
HT ADC - simulated
QT board

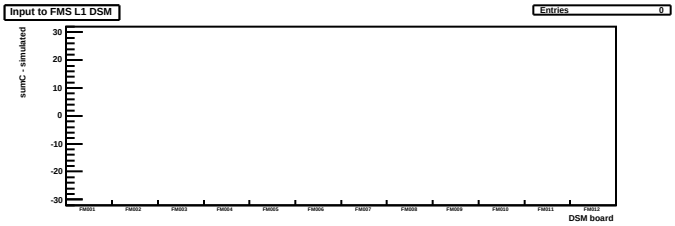

Input to FMS L0 DSM
Entries 144000
HT ID
QT board

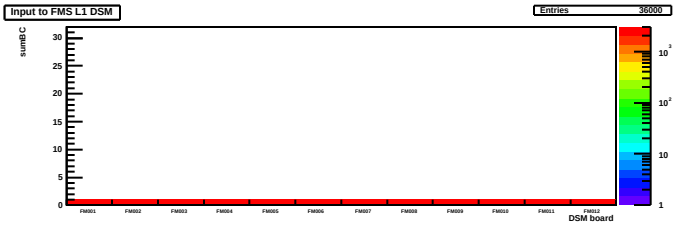

Input to FMS L0 DSM
Entries 24000
HT ID - simulated
QT board

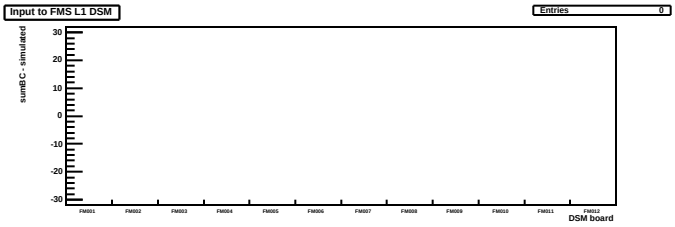

Input to FMS L1 DSM
Entries 36000
sumD
DSM board

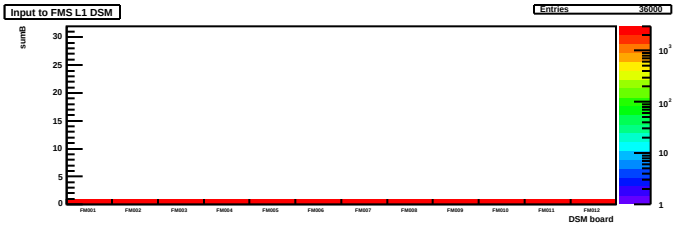

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

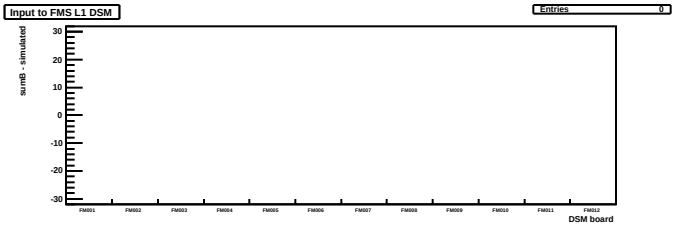

Input to FMS L1 DSM
Entries 36000
sumC
DSM board

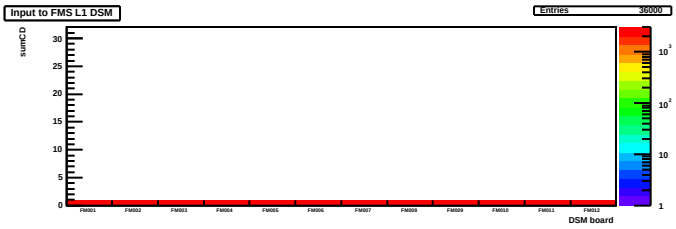

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

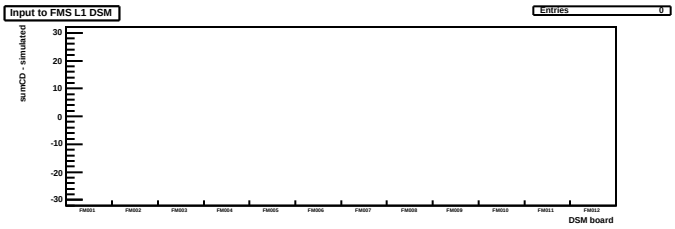

Input to FMS L1 DSM
Entries 36000
sumBC
DSM board

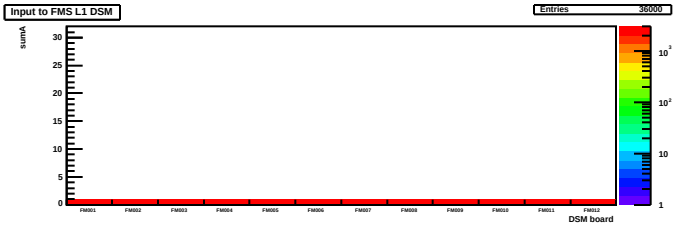

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

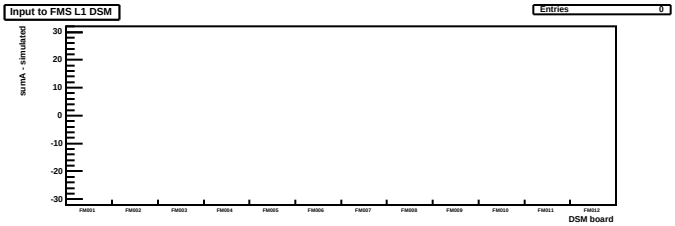

Input to FMS L1 DSM
Entries 36000
sumB
DSM board

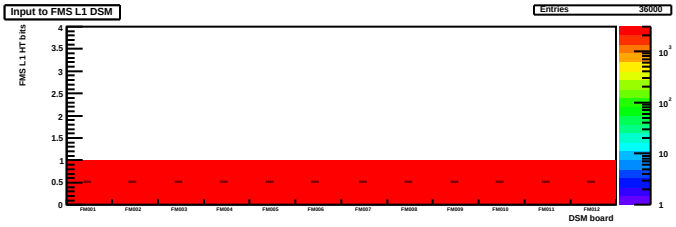

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

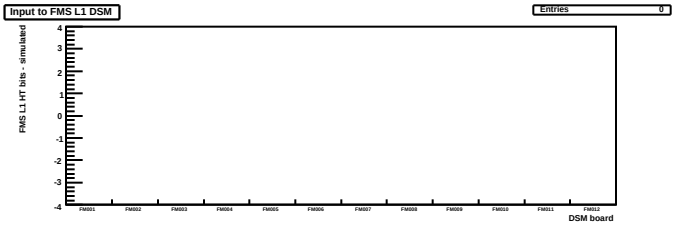

Input to FMS L1 DSM
Entries 36000
sumCD
DSM board

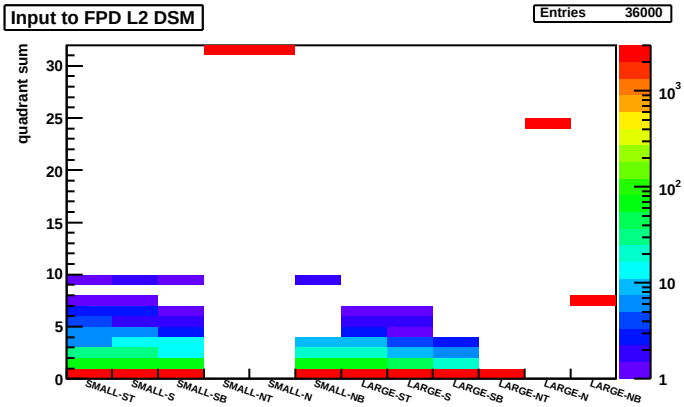

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

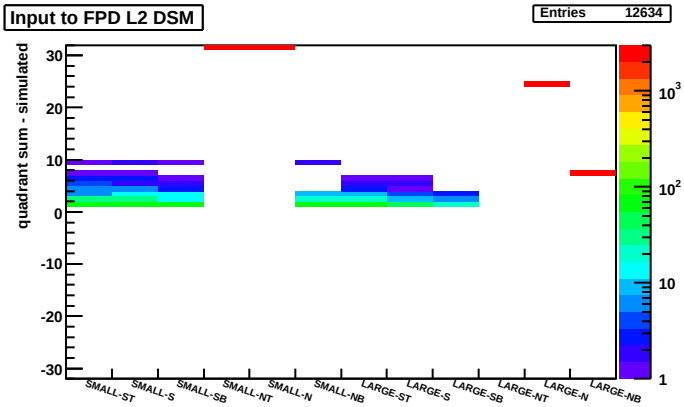

Input to FMS L1 DSM
Entries 36000
sumA
DSM board

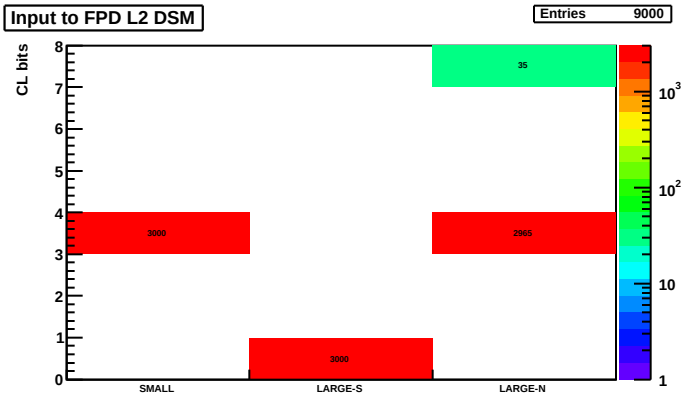

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

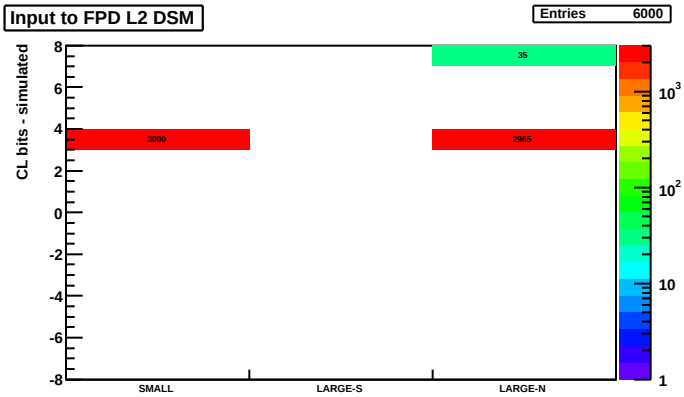

Input to FMS L1 DSM
Entries 36000
FMS L1 HT bits
DSM board

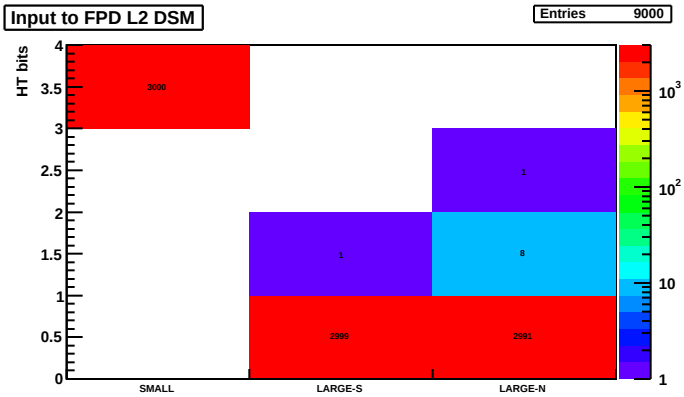

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

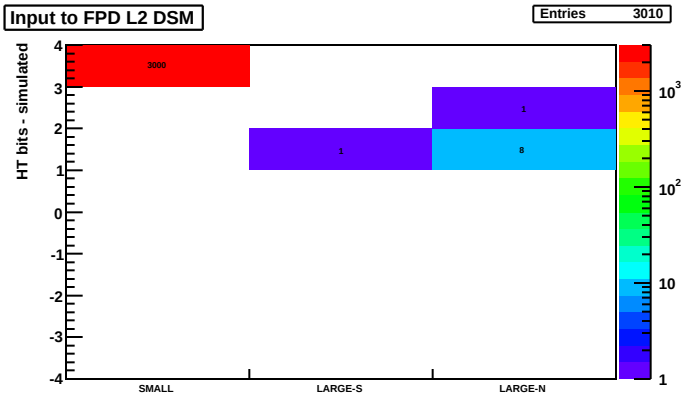

Input to FPD L2 DSM
Entries 36000
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

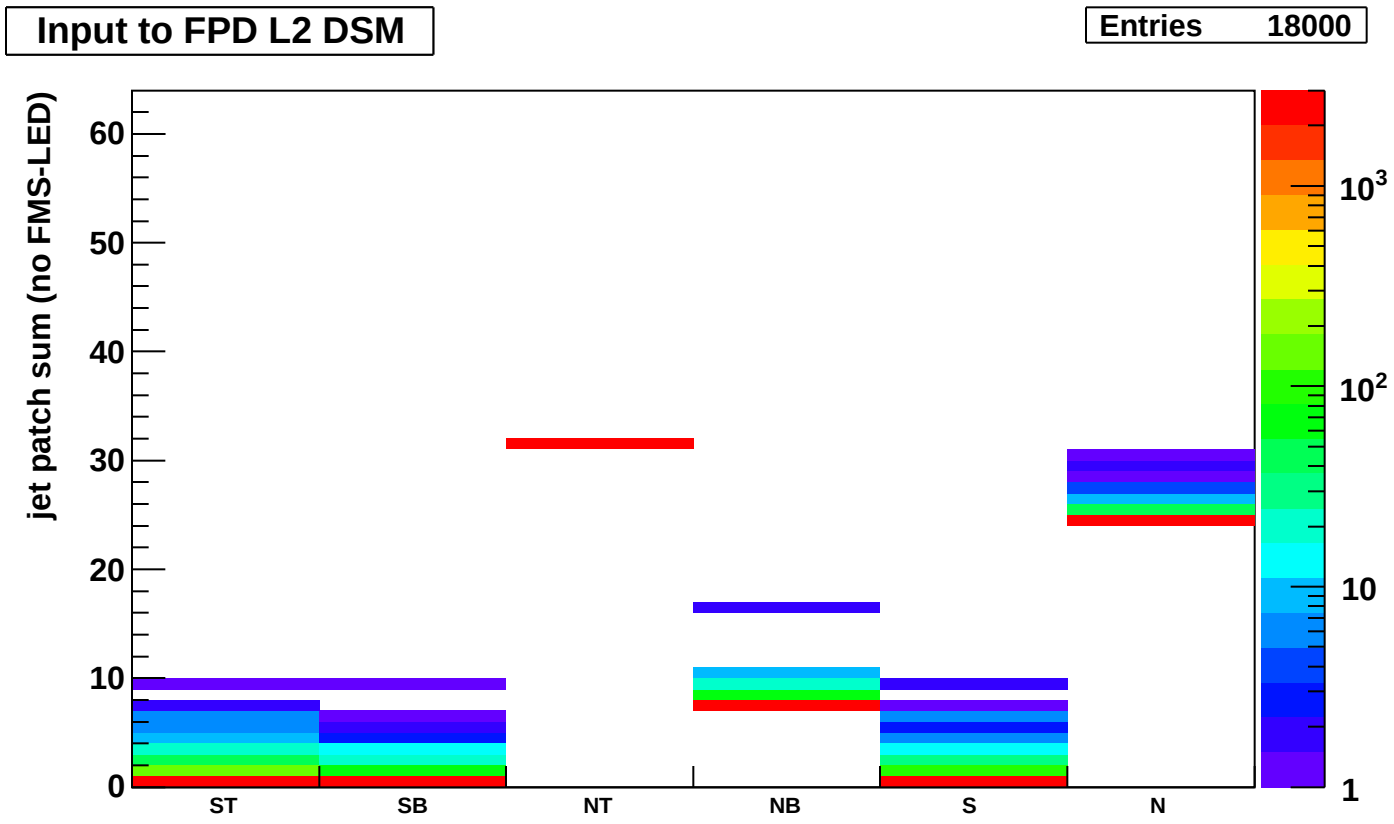

Input to FPD L2 DSM
Entries 12634
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

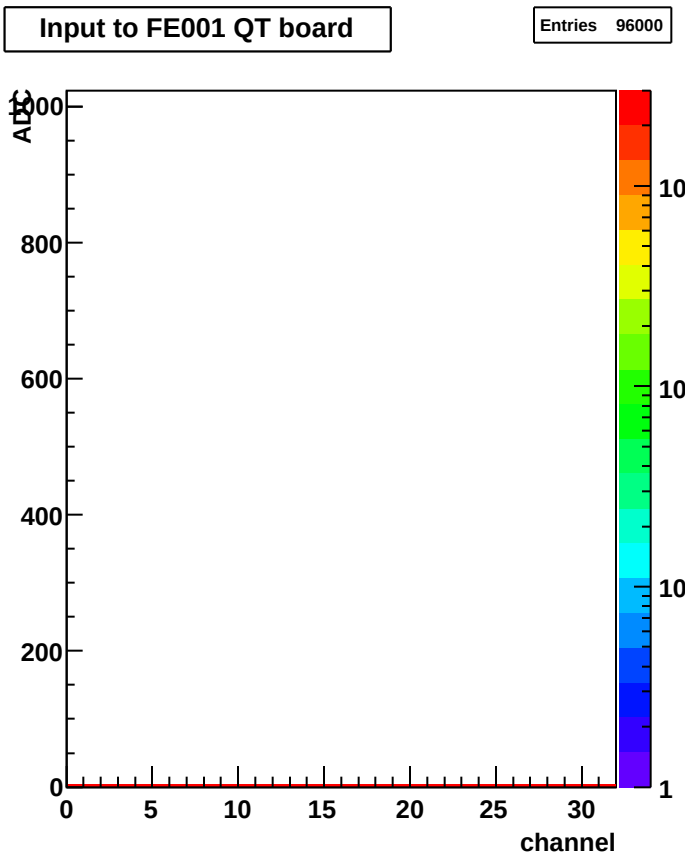

Input to FPD L2 DSM
Entries 9000
CL bits
3000
3000
35
2965
SMALL
LARGE-S
LARGE-N

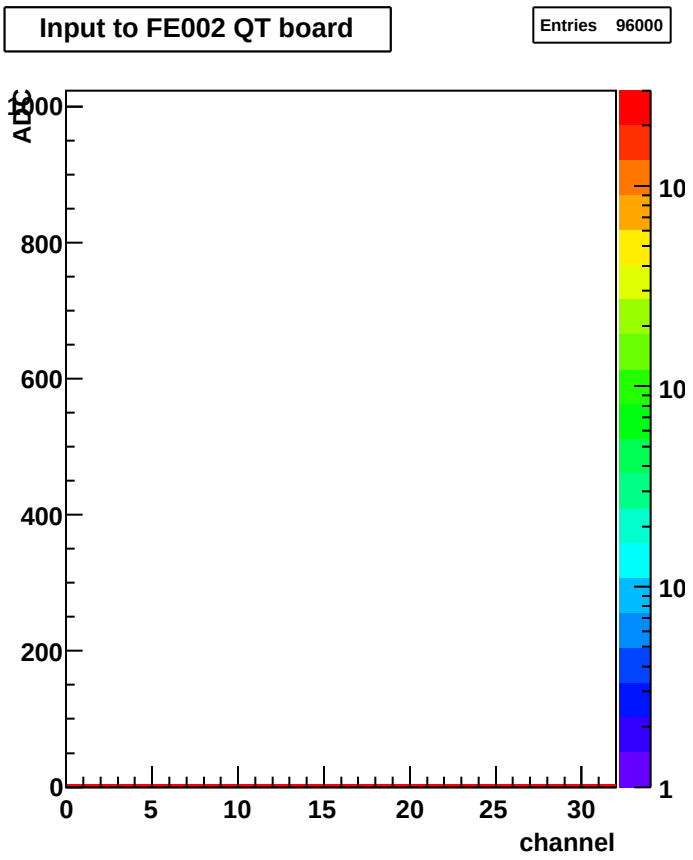

Input to FPD L2 DSM
Entries 6000
CL bits - simulated
3000
35
2965
SMALL
LARGE-S
LARGE-N

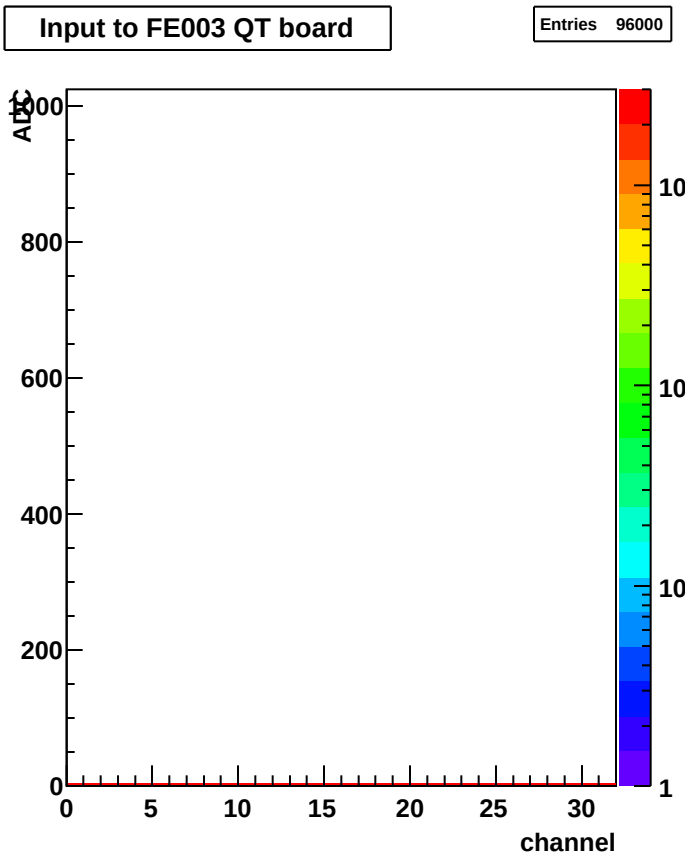

Input to FPD L2 DSM
Entries 9000
HT bits
3000
1
1
8
2999
2991
SMALL
LARGE-S
LARGE-N

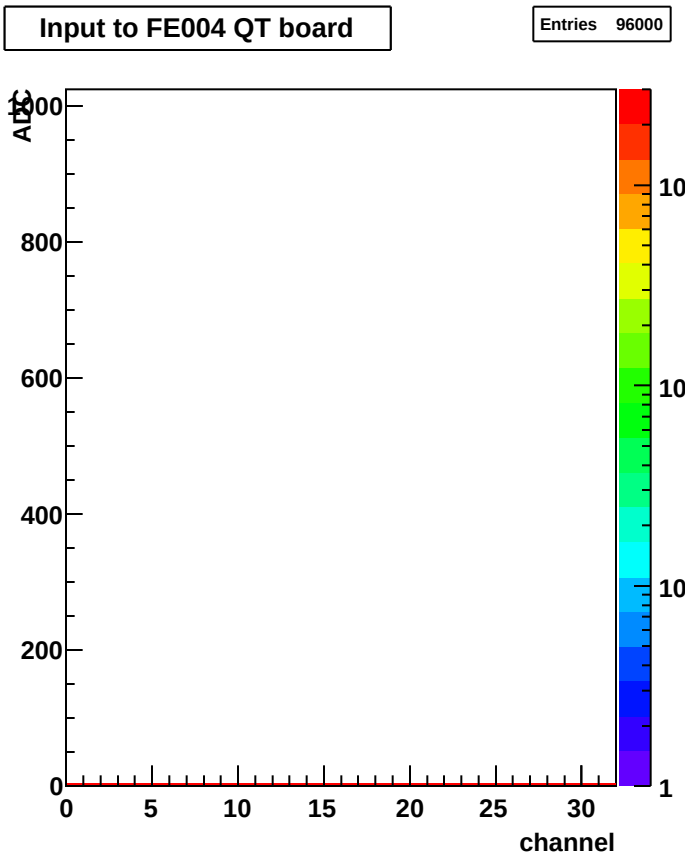

Input to FPD L2 DSM
Entries 3010
HT bits - simulated
3000
1
1
8
SMALL
LARGE-S
LARGE-N

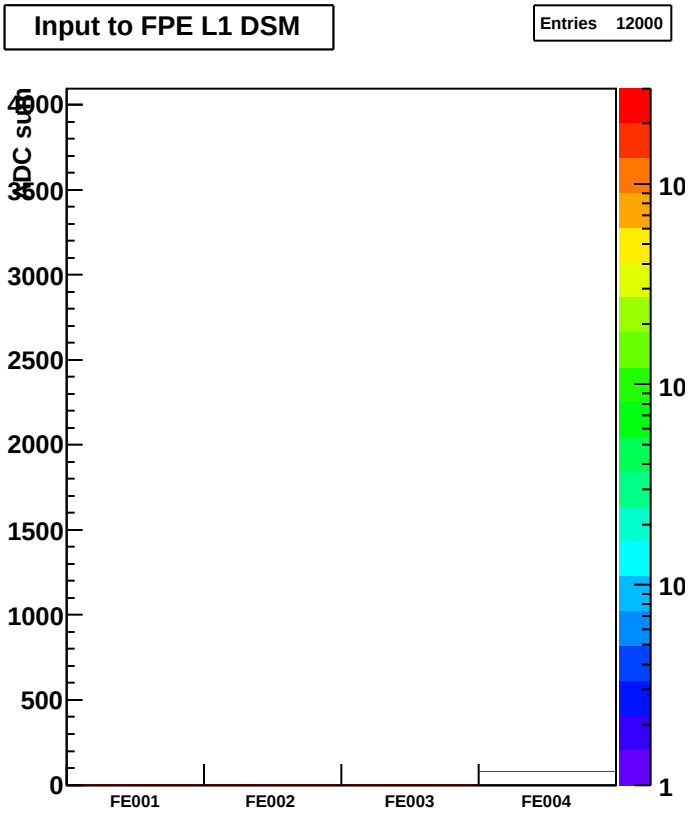

Input to FPD L2 DSM
Entries 18000
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

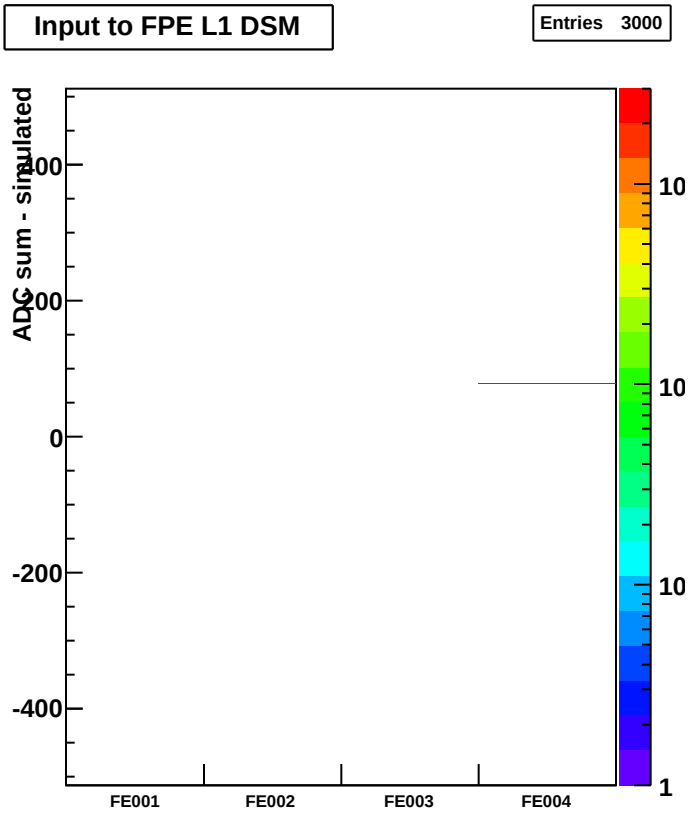

Input to FE001 QT board
Entries 96000
ADC
channel

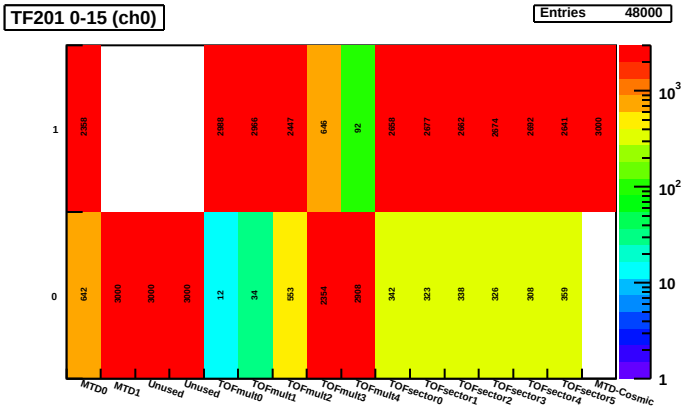

Input to FE002 QT board
Entries 96000
ADC
channel

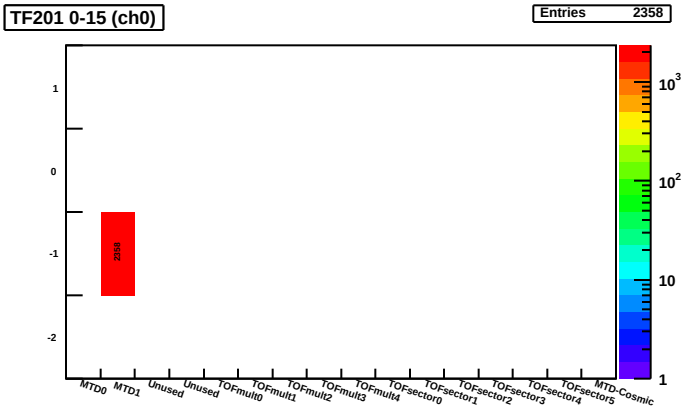

Input to FE003 QT board
Entries 96000
ADC
channel

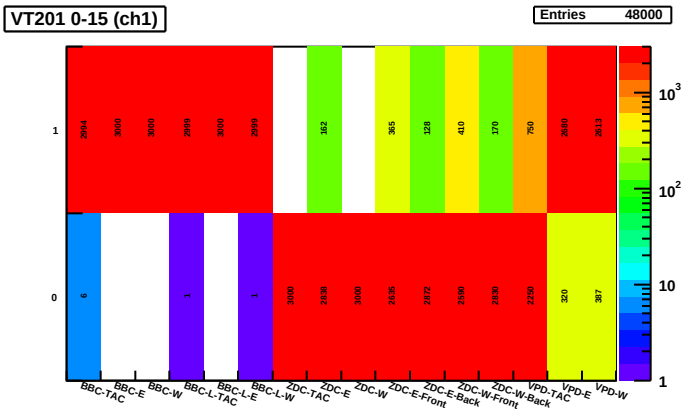

Input to FE004 QT board
Entries 96000
ADC
channel

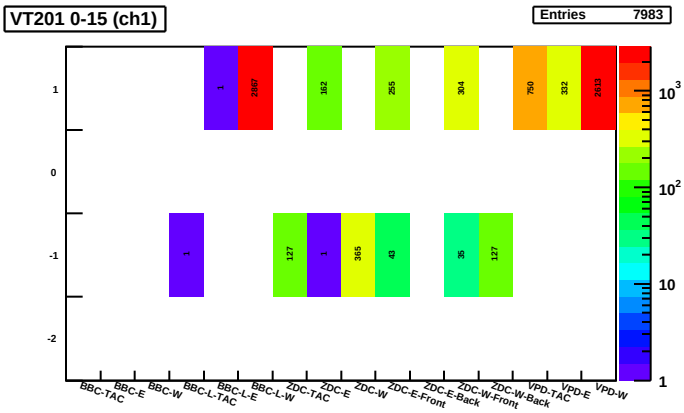

Input to FPE L1 DSM
Entries 12000
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1

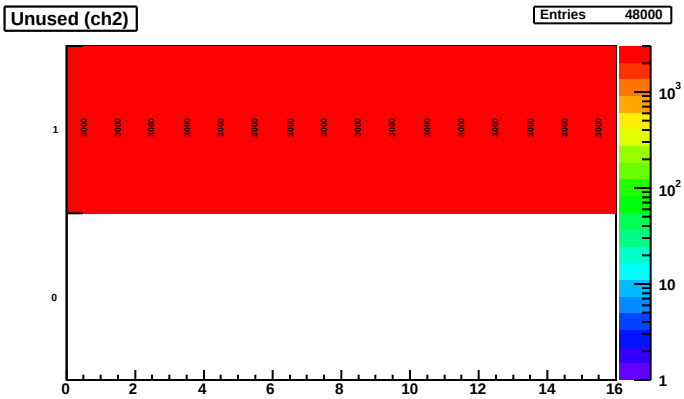

Input to FPE L1 DSM
Entries 3000
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
1

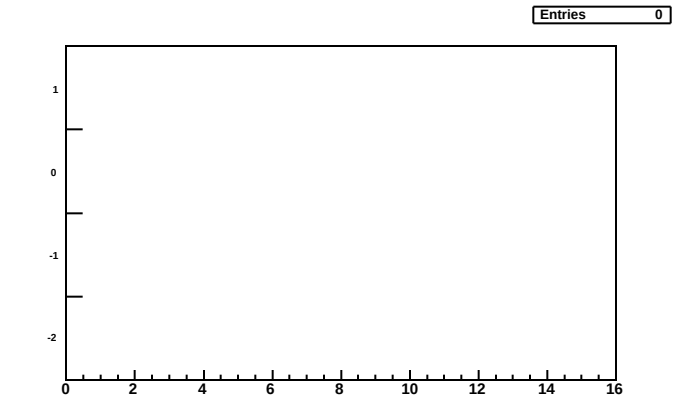

TF201 0-15 (ch0)
Entries 48000
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

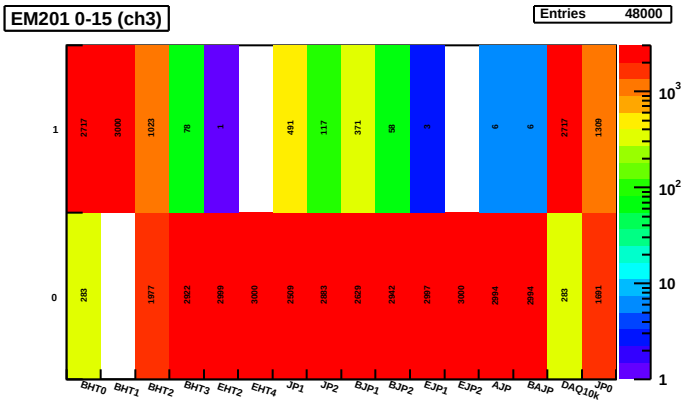

TF201 0-15 (ch0)
Entries 2358
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

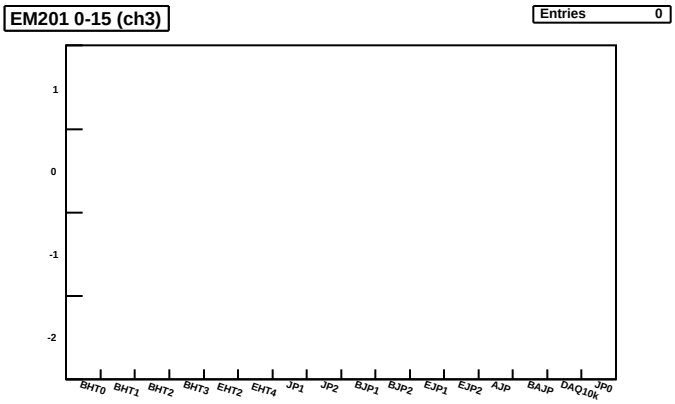

VT201 0-15 (ch1)
Entries 48000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 7983
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 48000


Entries 0


EM201 0-15 (ch3)
Entries 48000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0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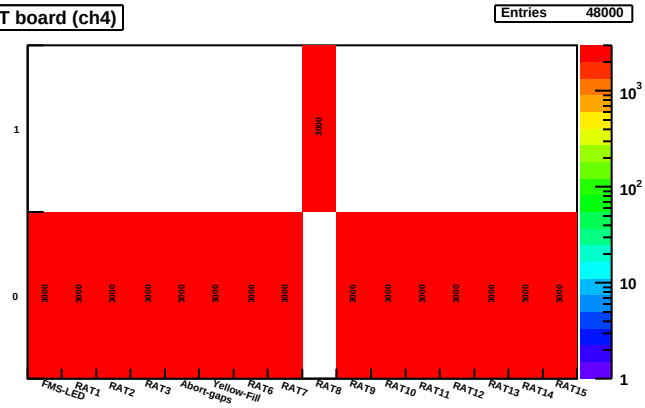
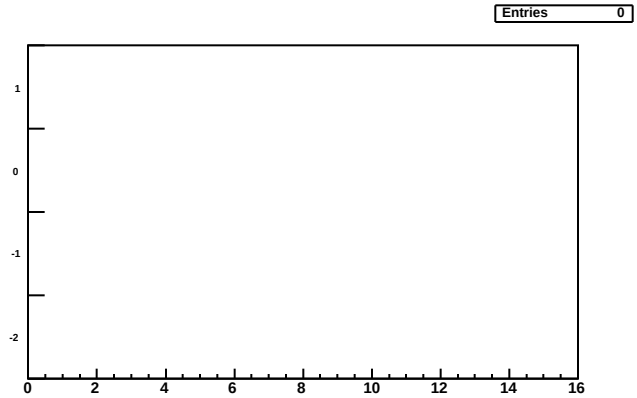
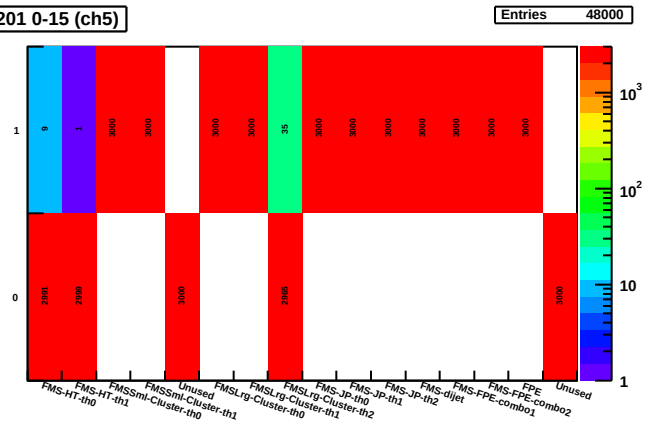
RAT board (ch4)

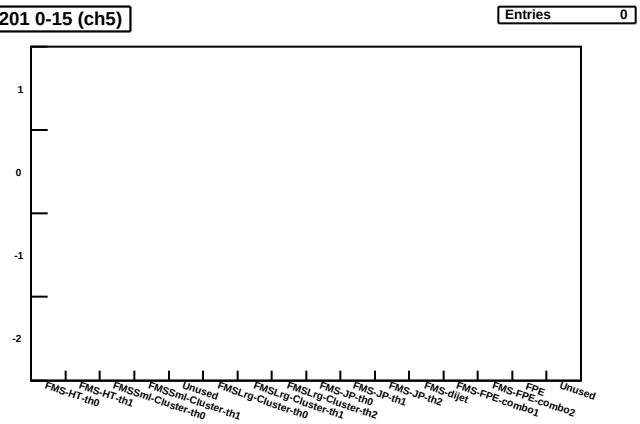




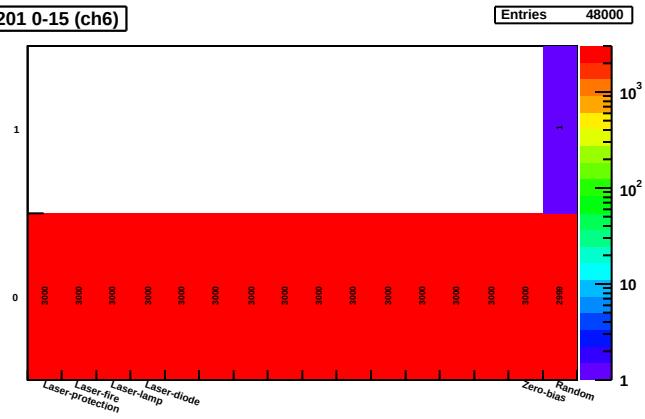
FP201 0-15 (ch5)

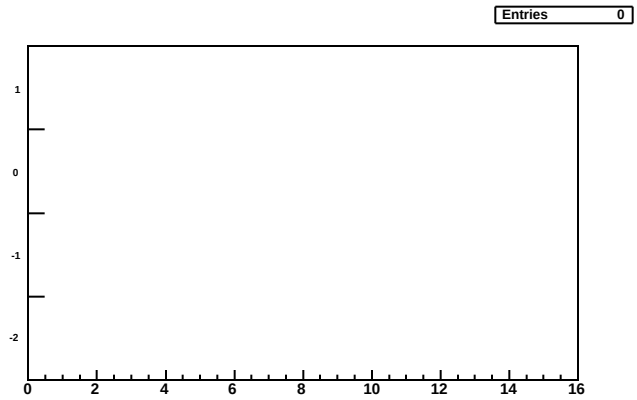
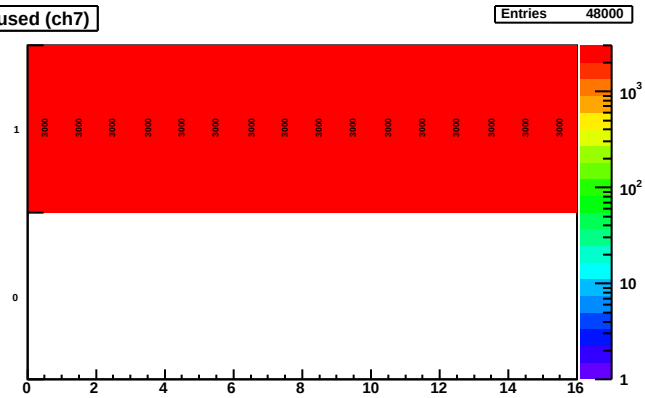
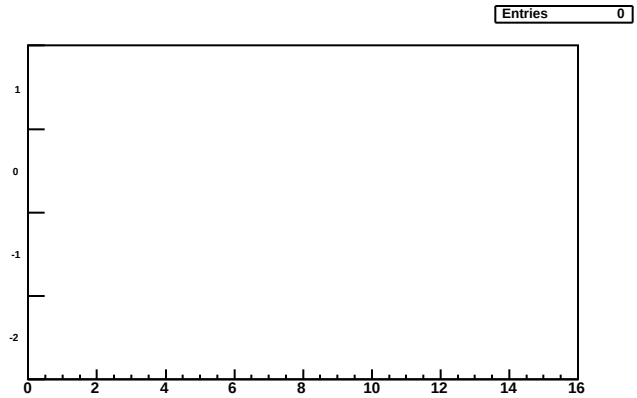


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)