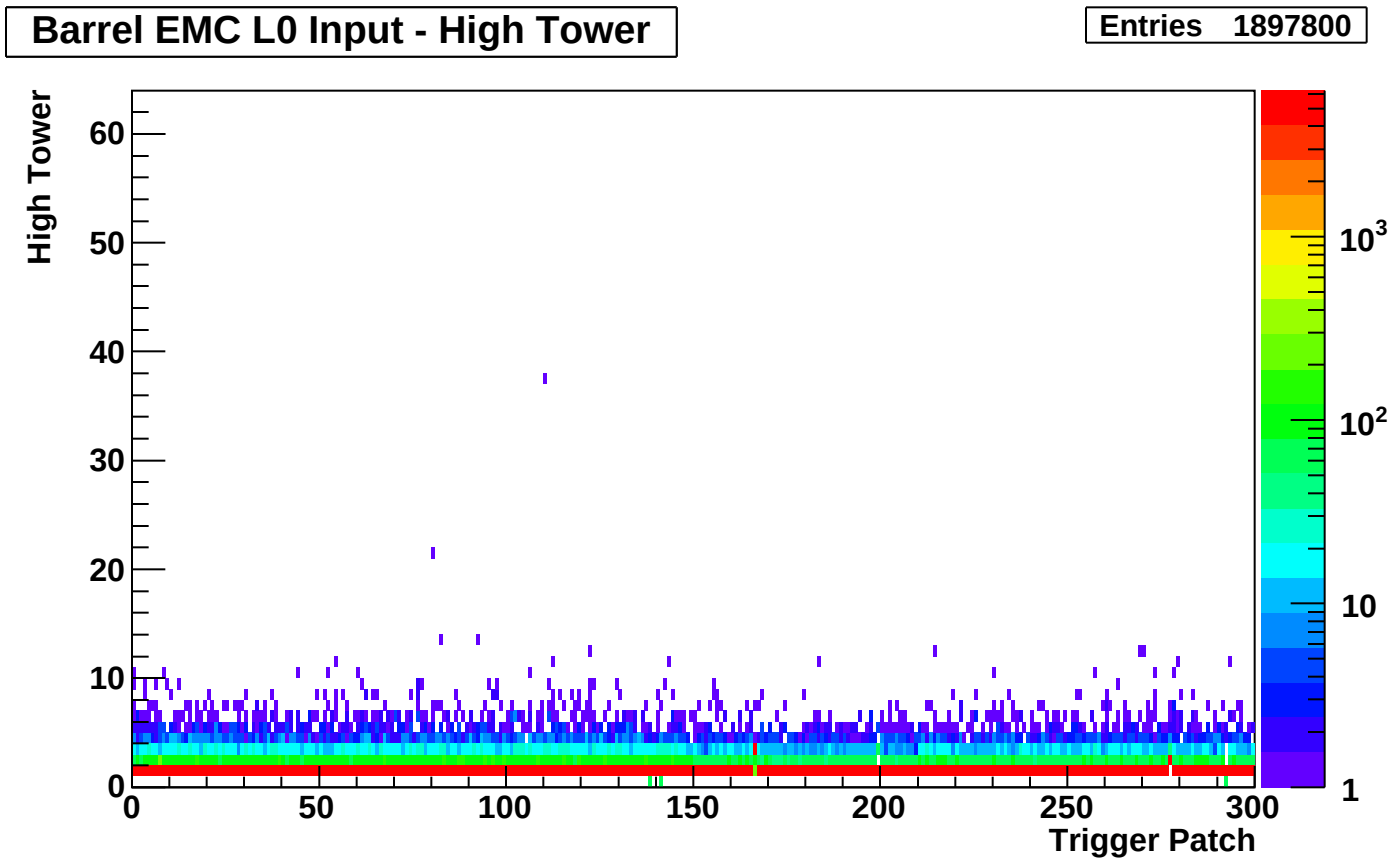
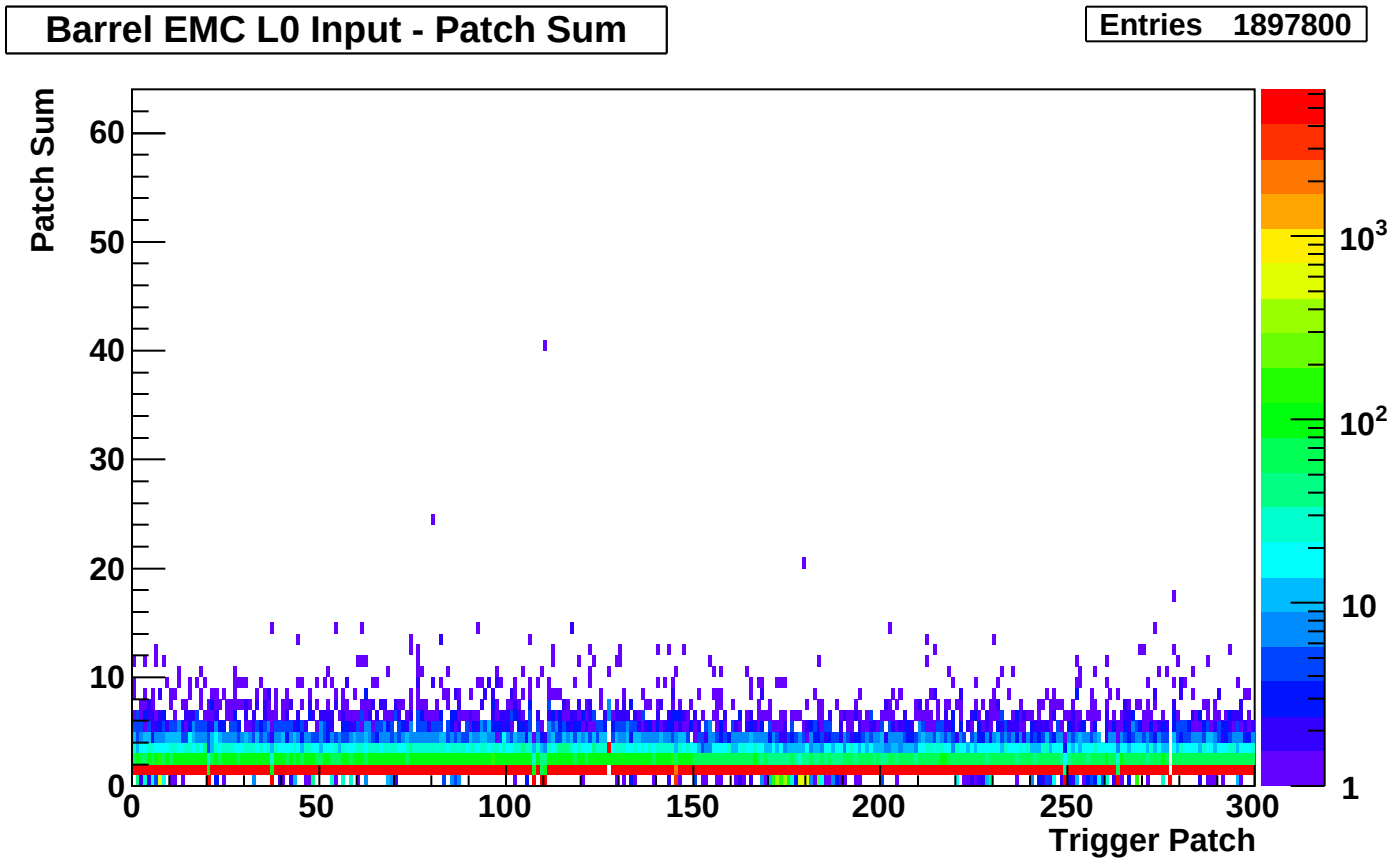
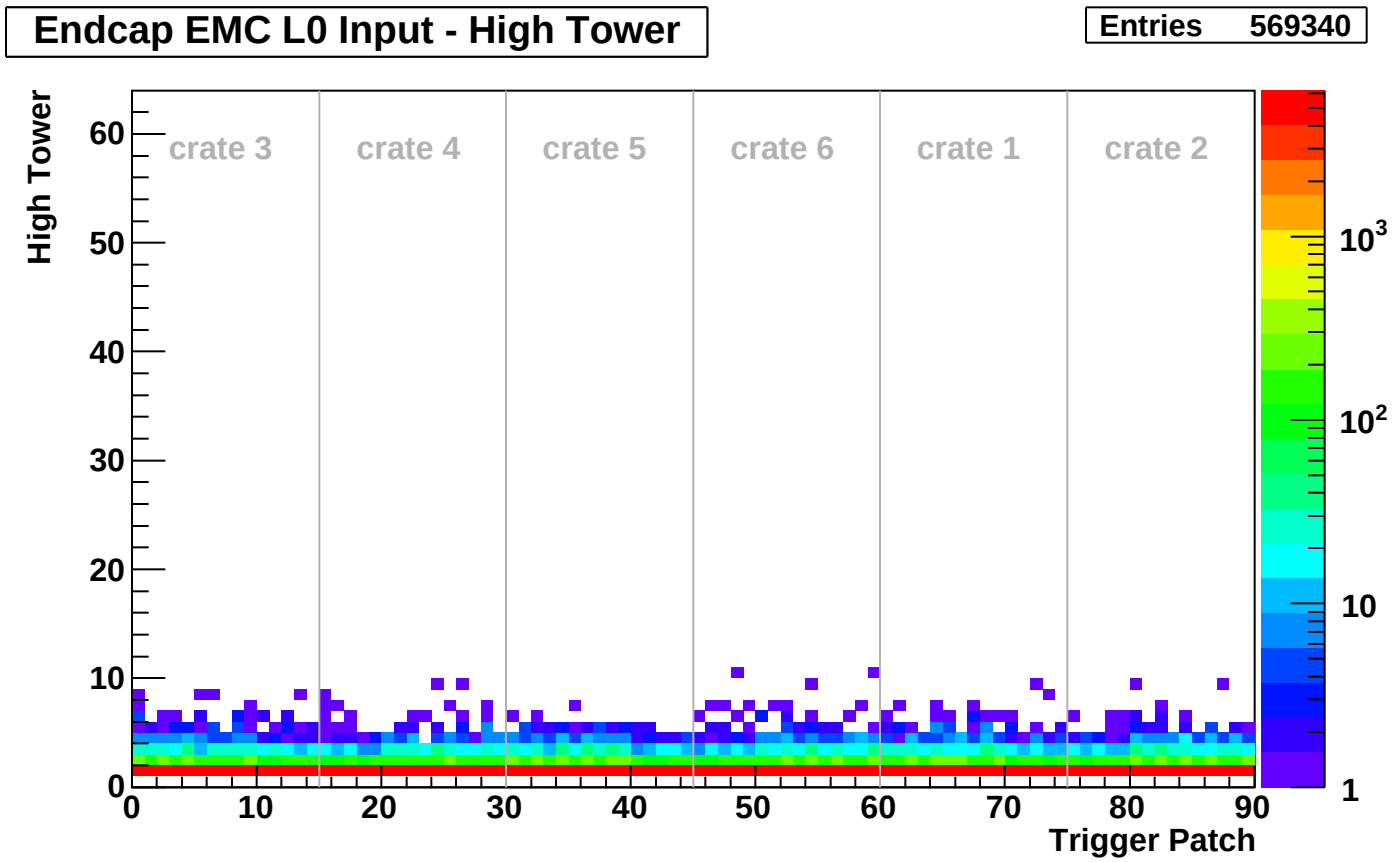
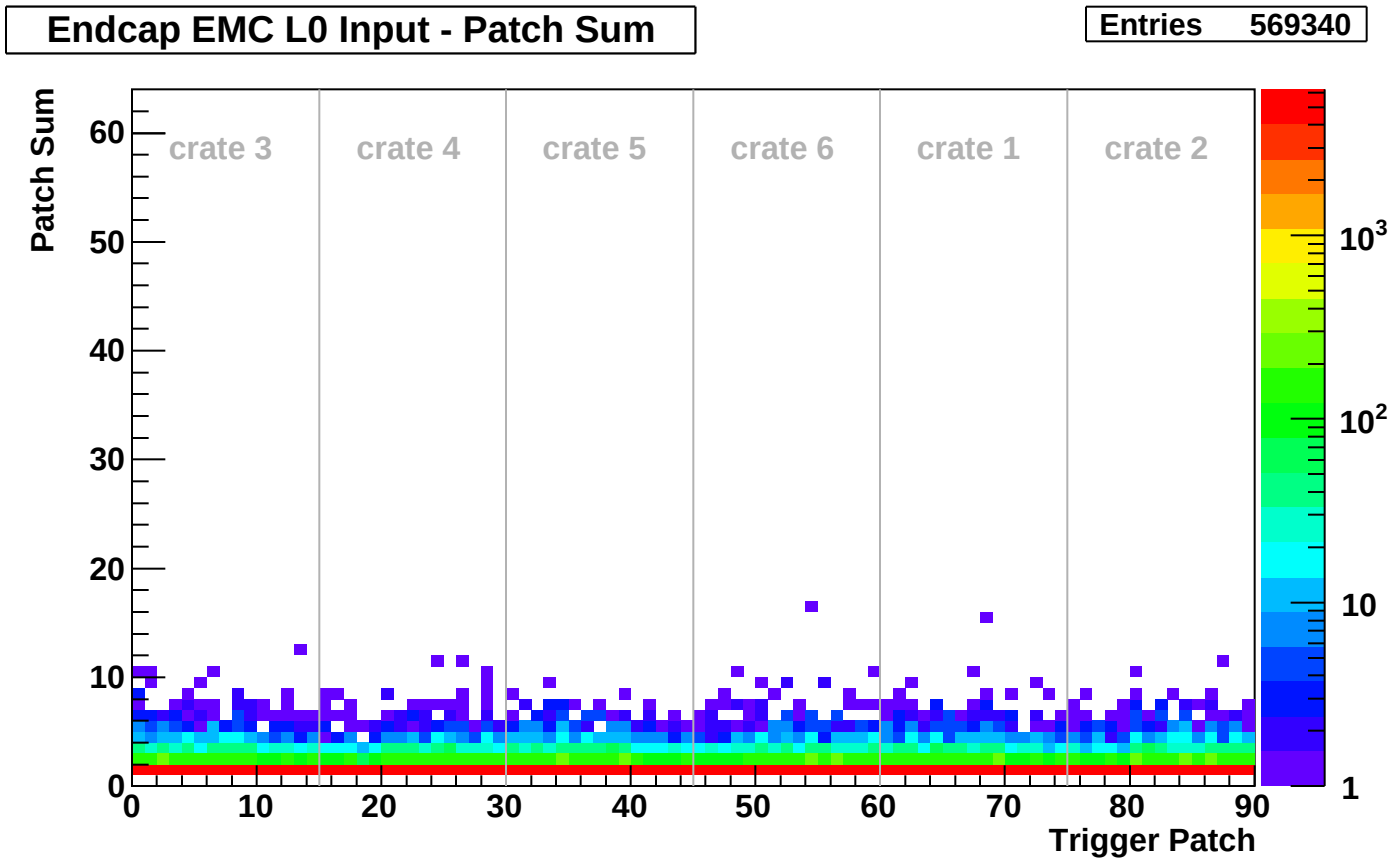
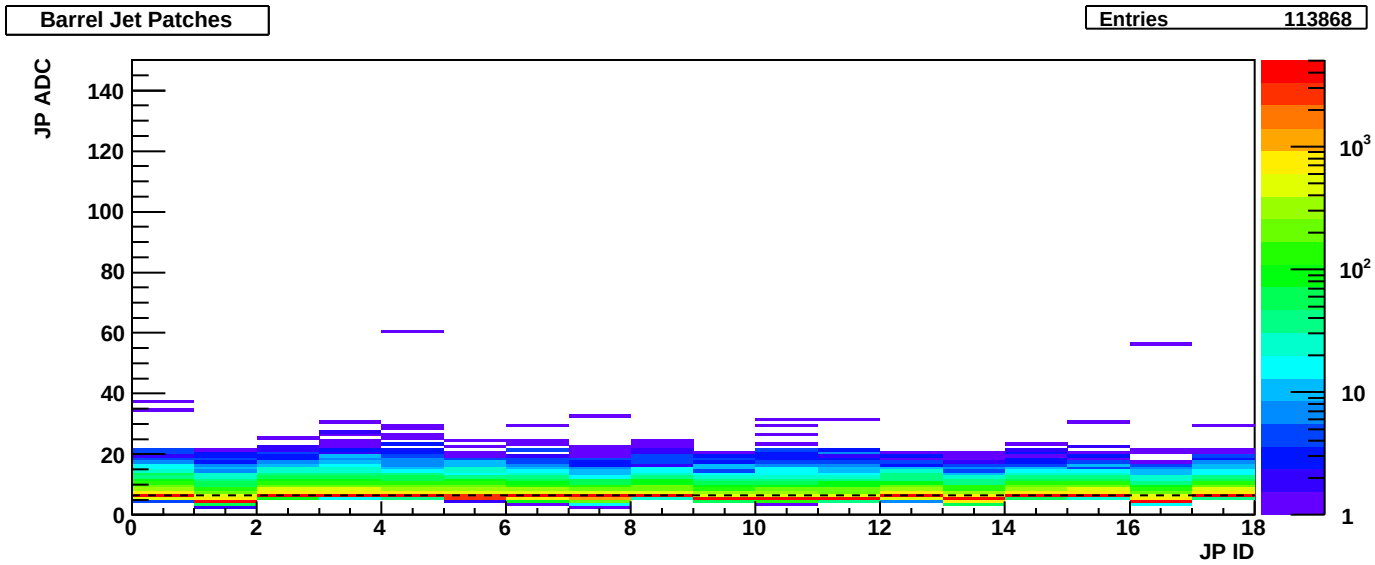
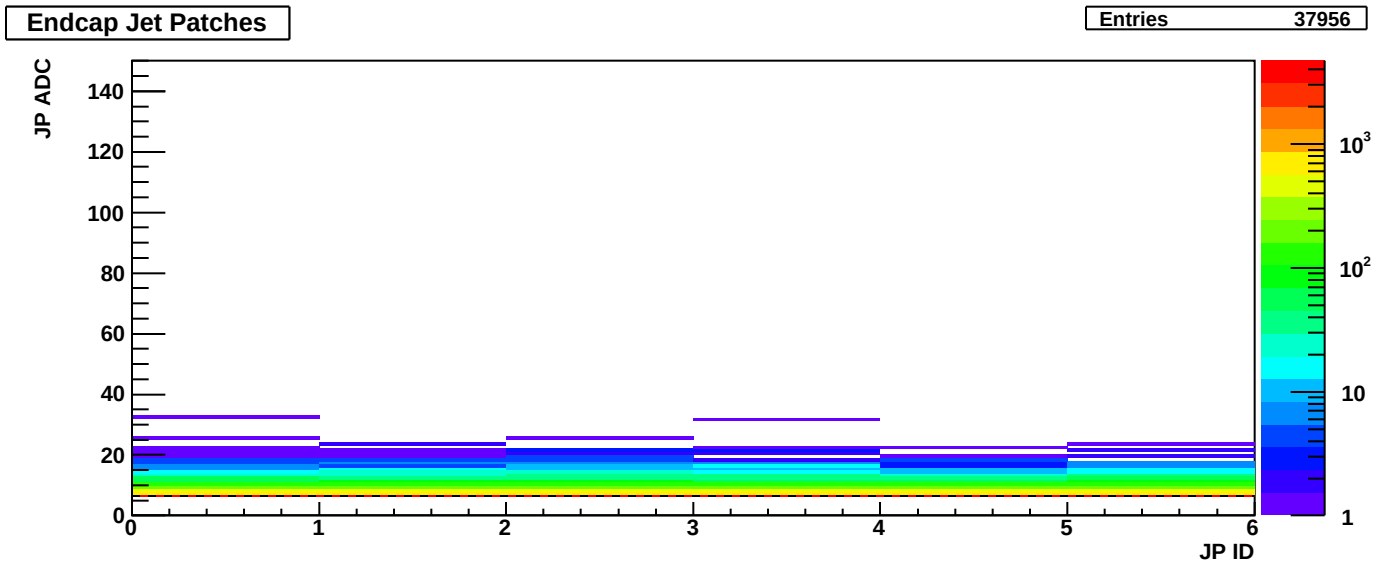

Barrel EMC L0 Input - High Tower
Entries 1897800
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

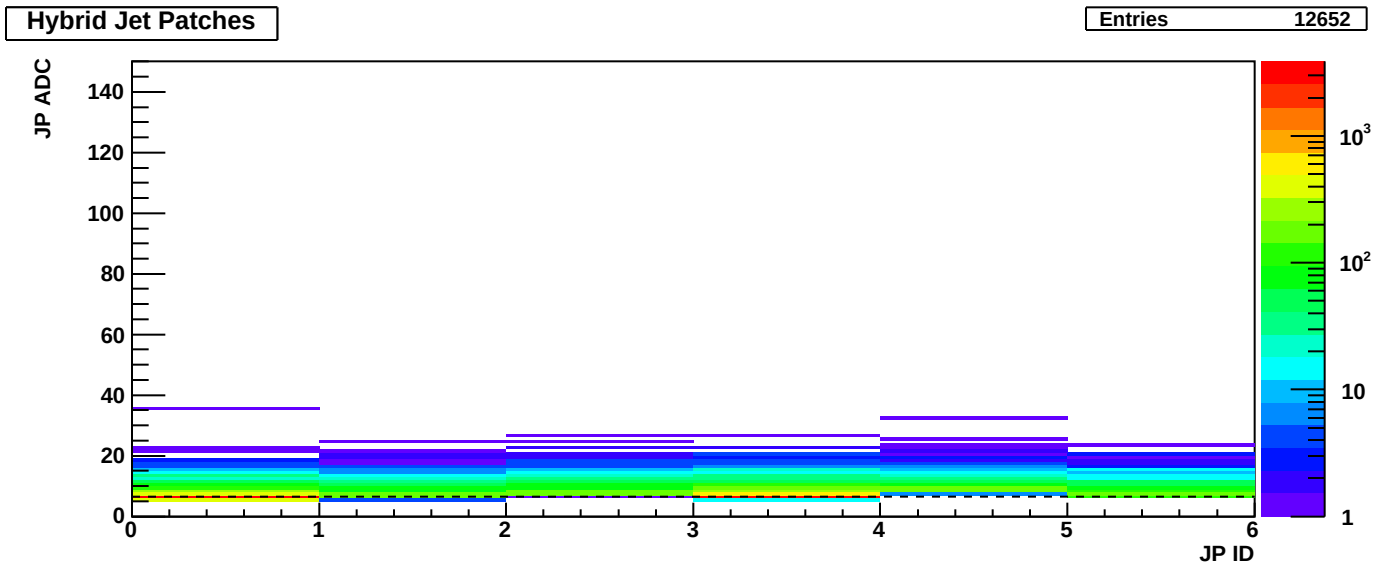

Barrel EMC L0 Input - Patch Sum
Entries 1897800
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

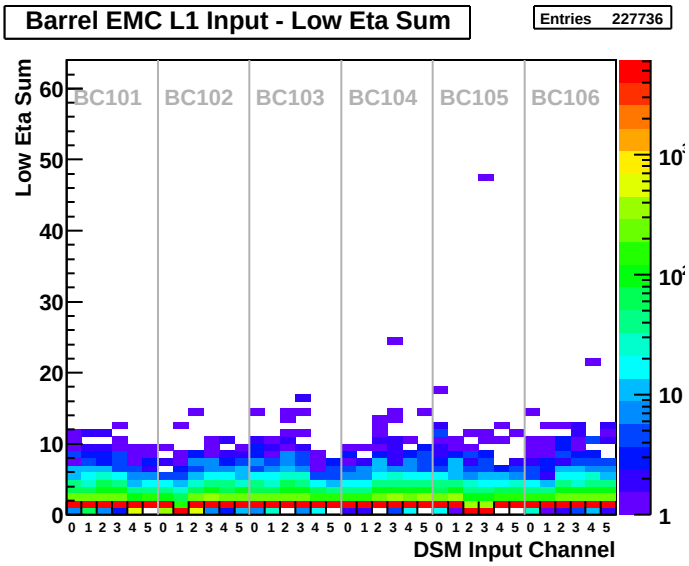

Endcap EMC L0 Input - High Tower
Entries 569340
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

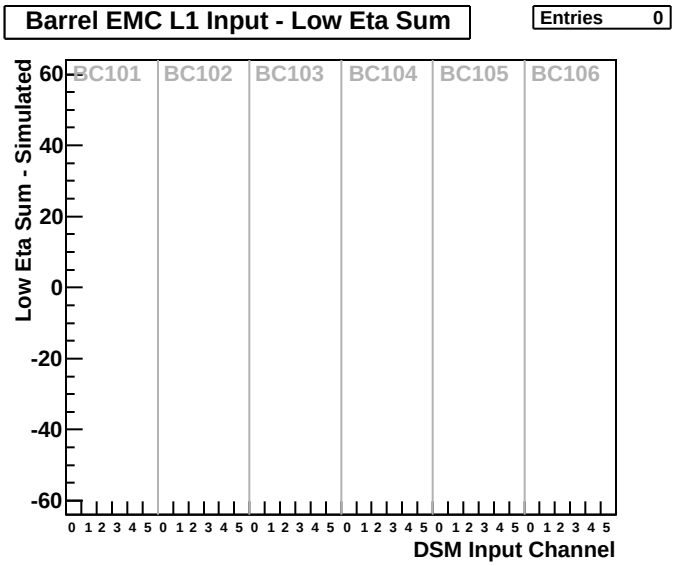

Endcap EMC L0 Input - Patch Sum
Entries 569340
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

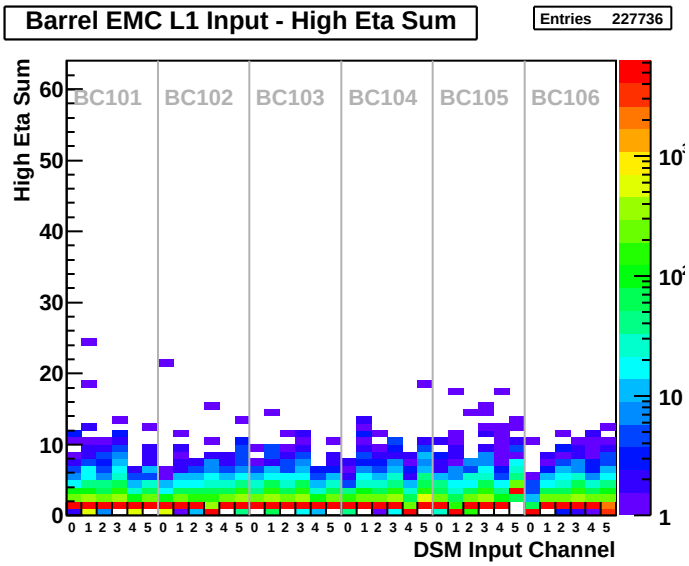

Barrel Jet Patches
Entries 113868
JP ADC
JP ID

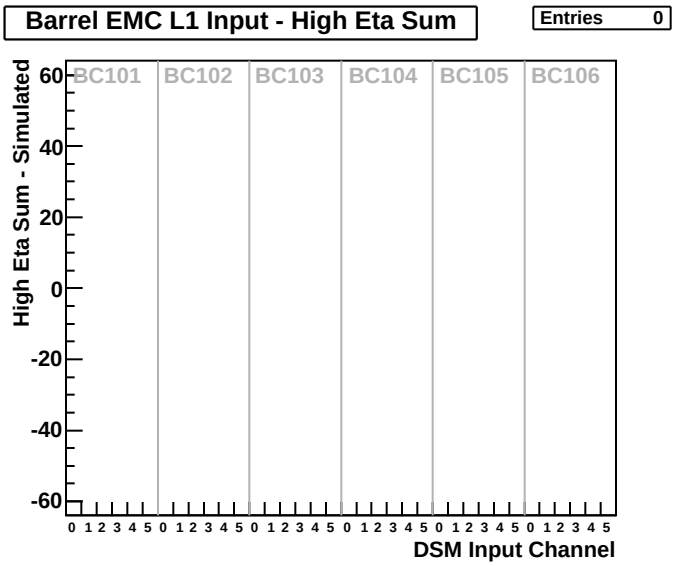

Endcap Jet Patches
Entries 37956
JP ADC
JP ID

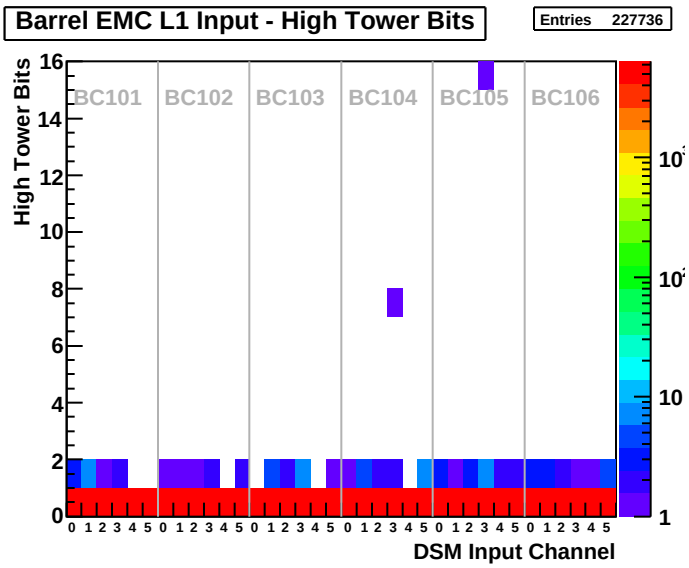

Hybrid Jet Patches
Entries 12652
JP ADC
JP ID

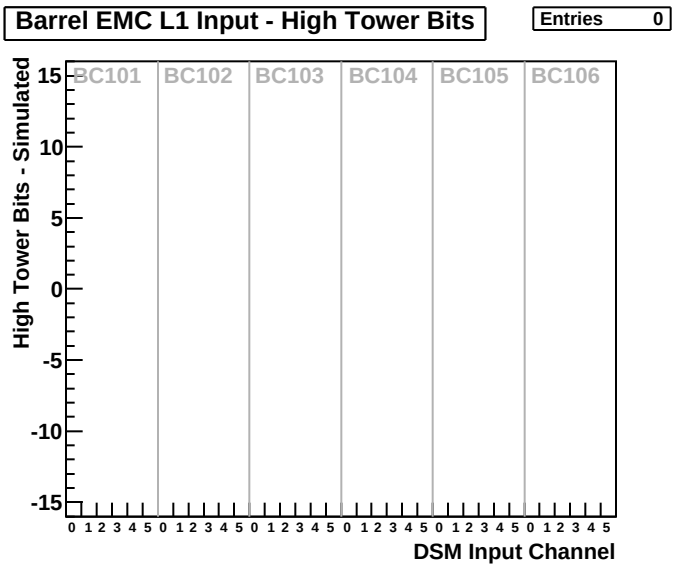

Barrel EMC L1 Input - Low Eta Sum
Entries 227736
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

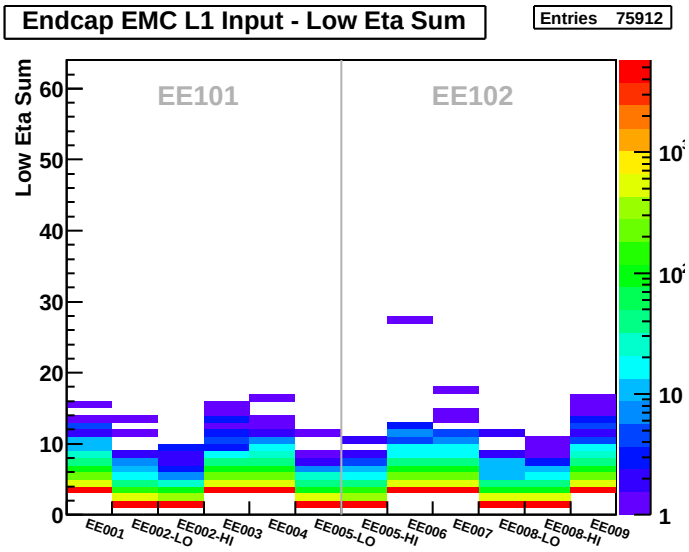

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

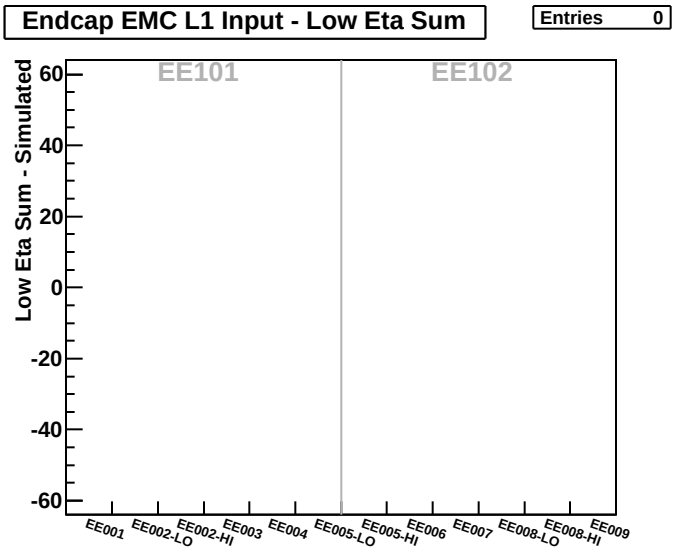

Barrel EMC L1 Input - High Eta Sum
Entries 227736
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

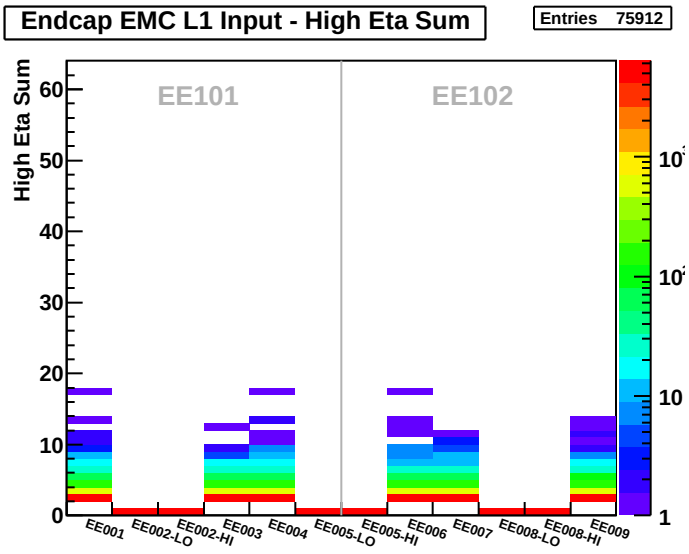

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

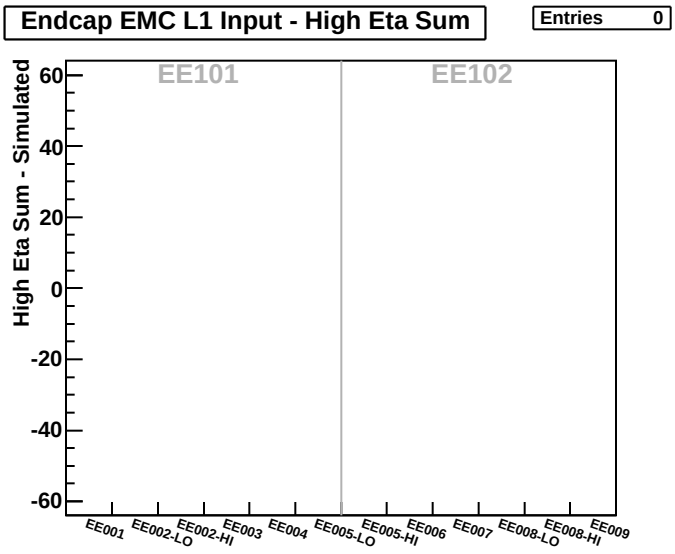

Barrel EMC L1 Input - High Tower Bits
Entries 227736
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

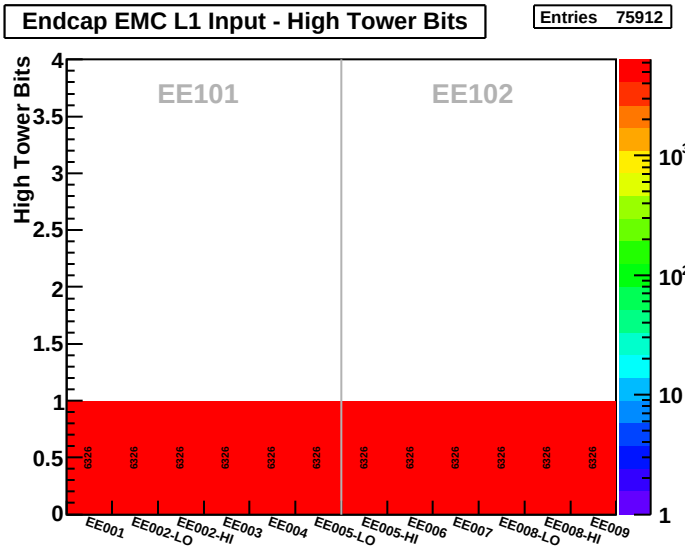

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

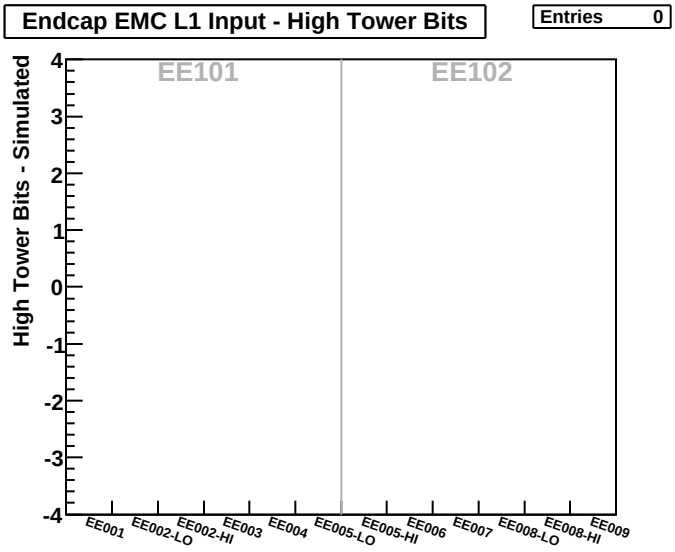

Endcap EMC L1 Input - Low Eta Sum
Entries 75912
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

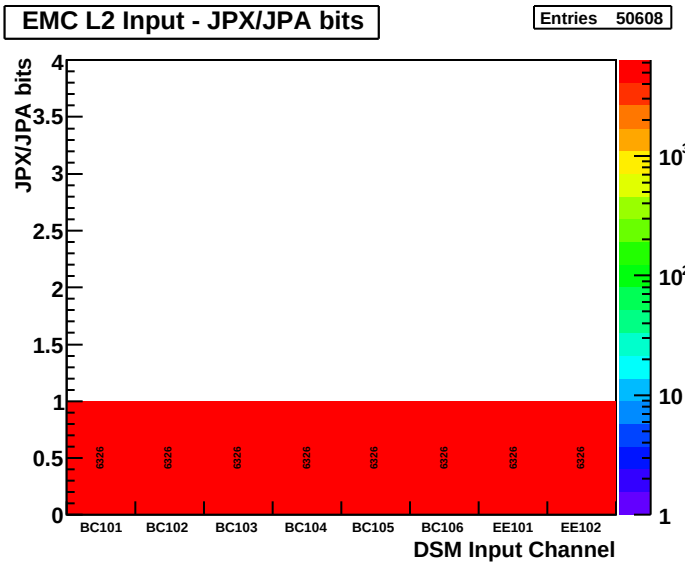

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

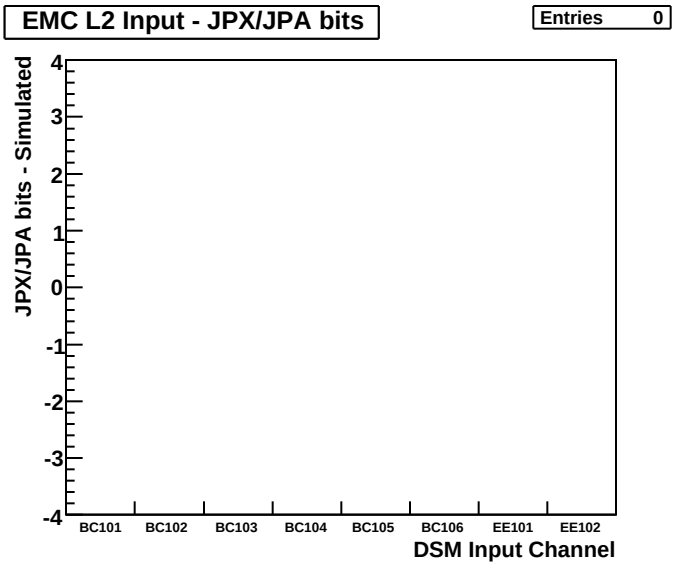

Endcap EMC L1 Input - High Eta Sum
Entries 75912
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

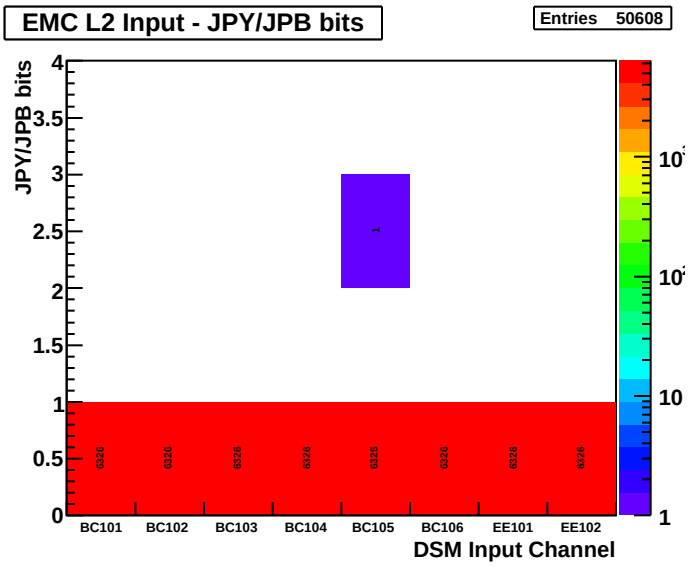

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

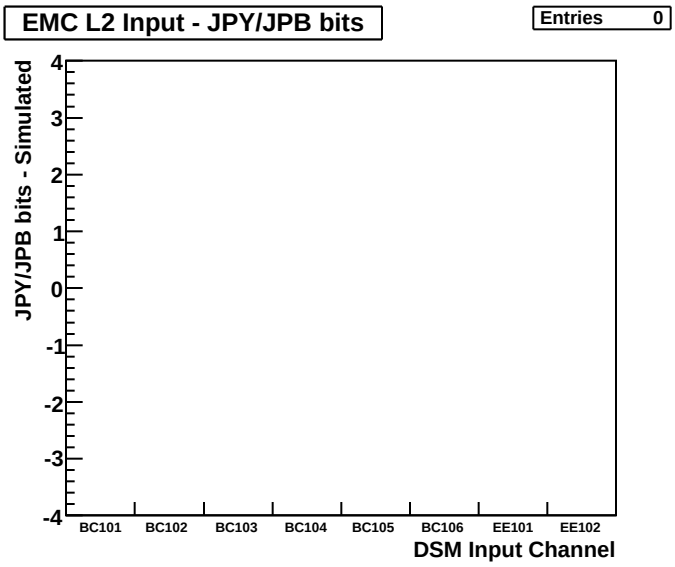

Endcap EMC L1 Input - High Tower Bits
Entries 75912
High Tower Bits
EE101
EE102
6326
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

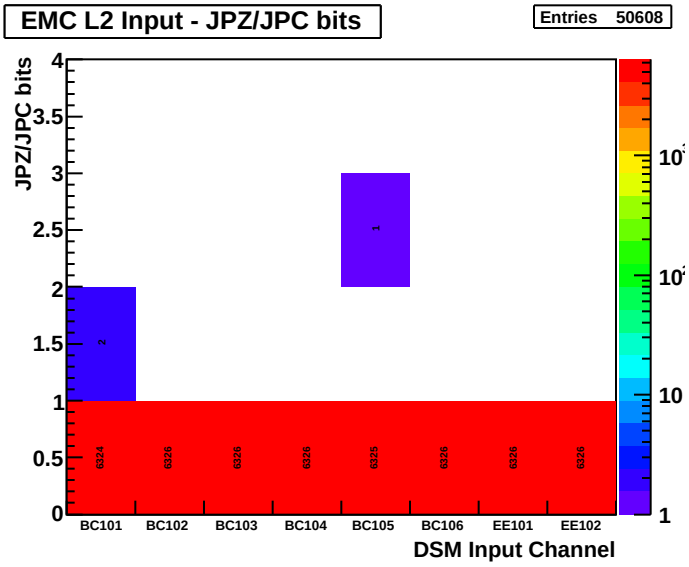

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

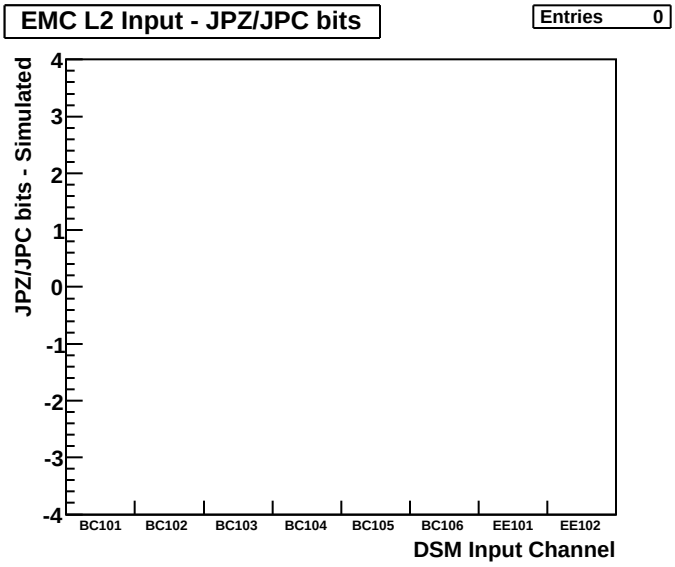

EMC L2 Input - JPX/JPA bits
Entries 50608
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

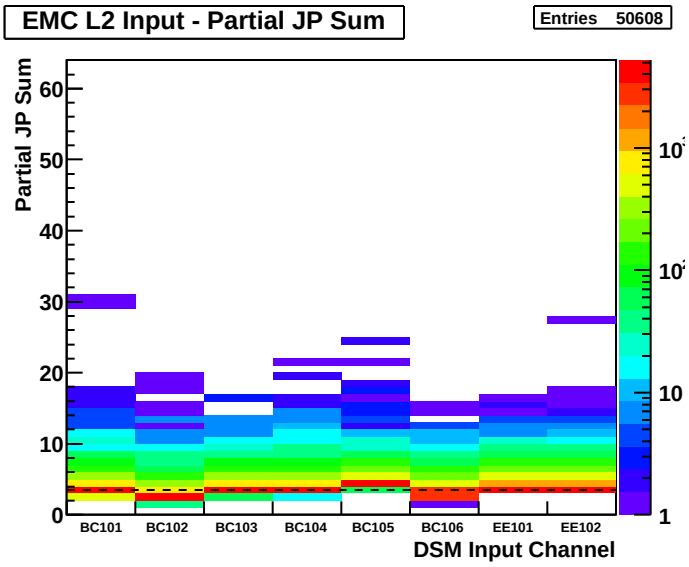

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

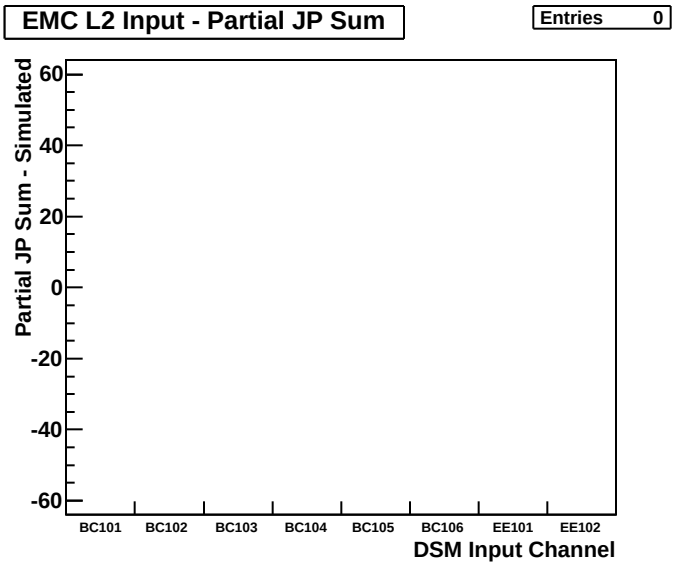

EMC L2 Input - JPY/JPB bits
Entries 50608
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

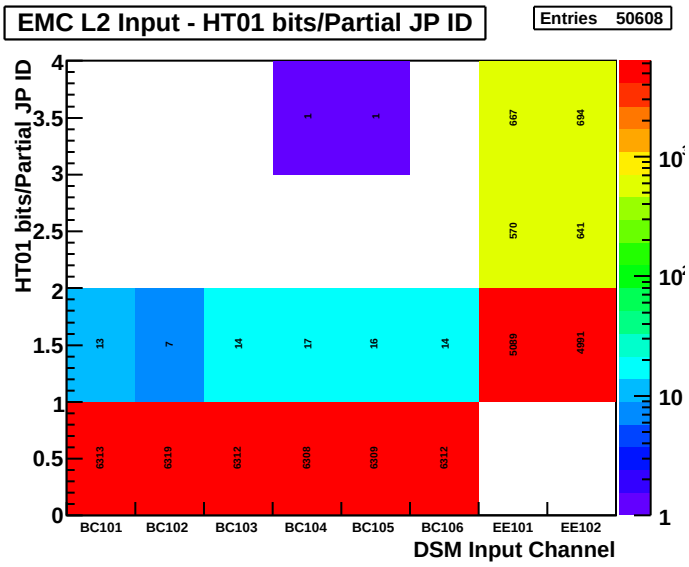

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

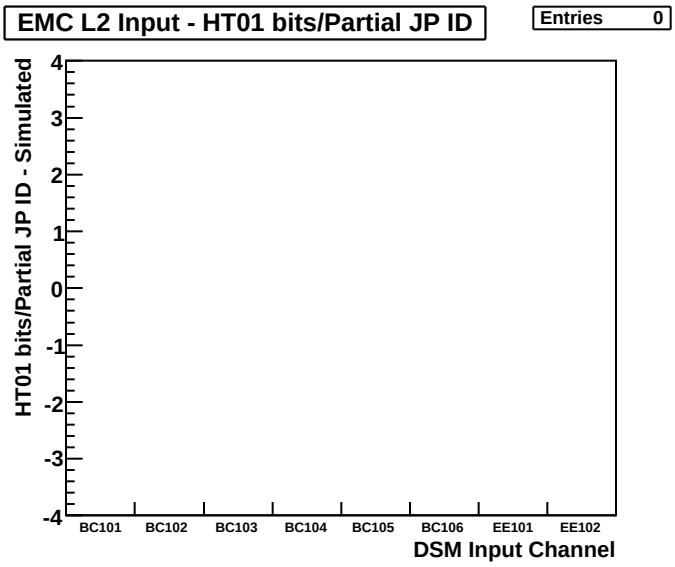

EMC L2 Input - JPZ/JPC bits
Entries 50608
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

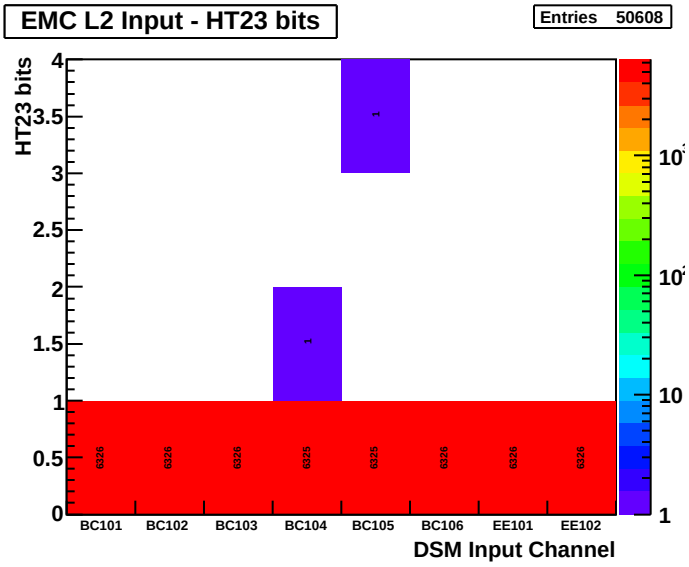

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

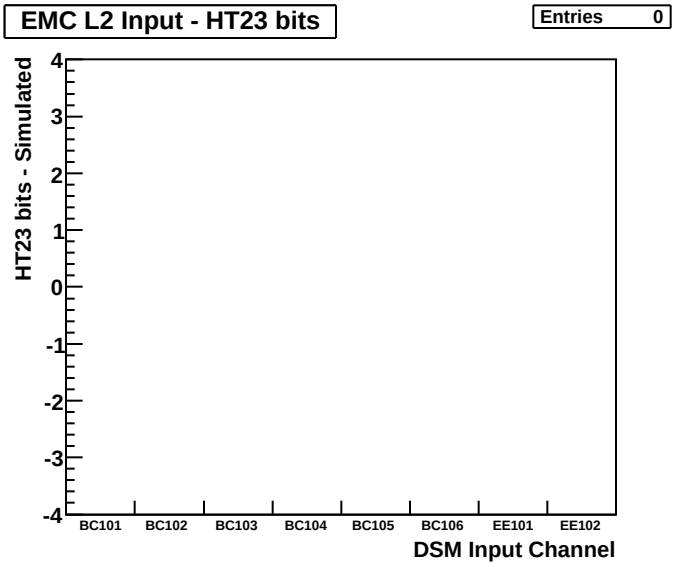

EMC L2 Input - Partial JP Sum
Entries 50608
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

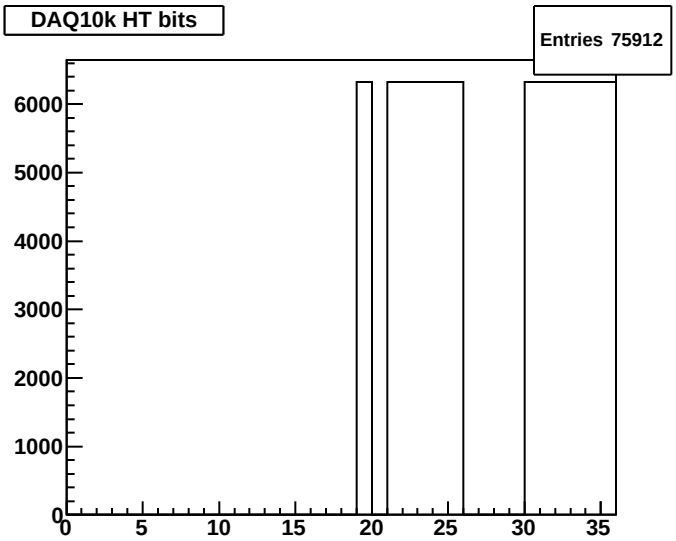

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

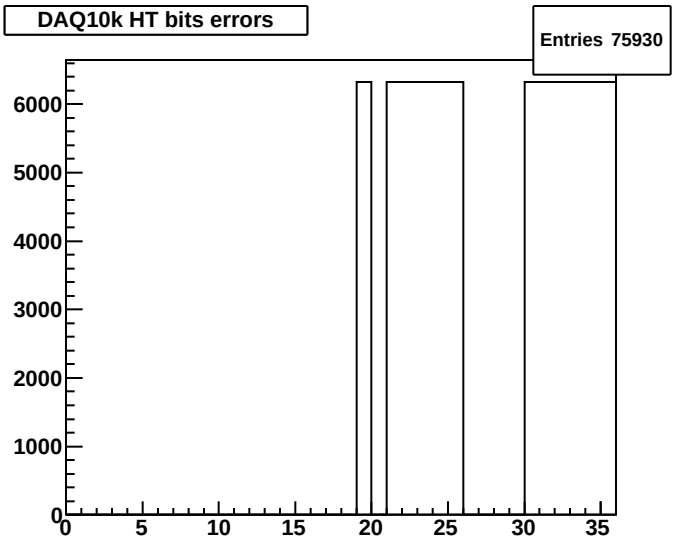

EMC L2 Input - HT01 bits/Partial JP ID
Entries 50608
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

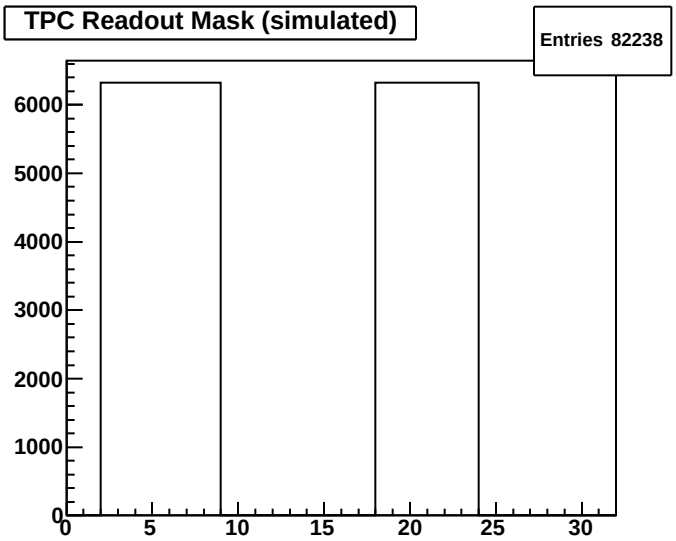

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

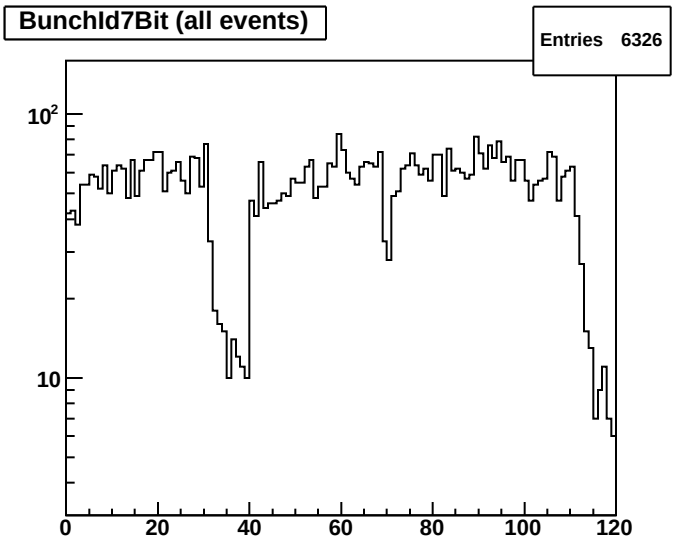

EMC L2 Input - HT23 bits
Entries 50608
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

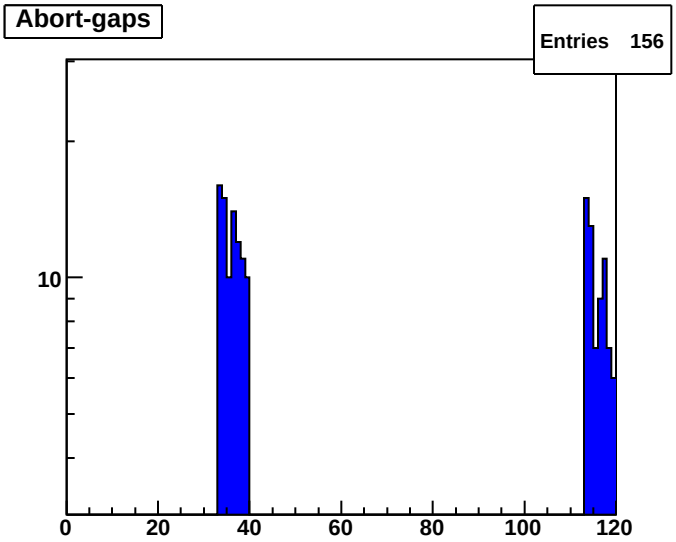

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

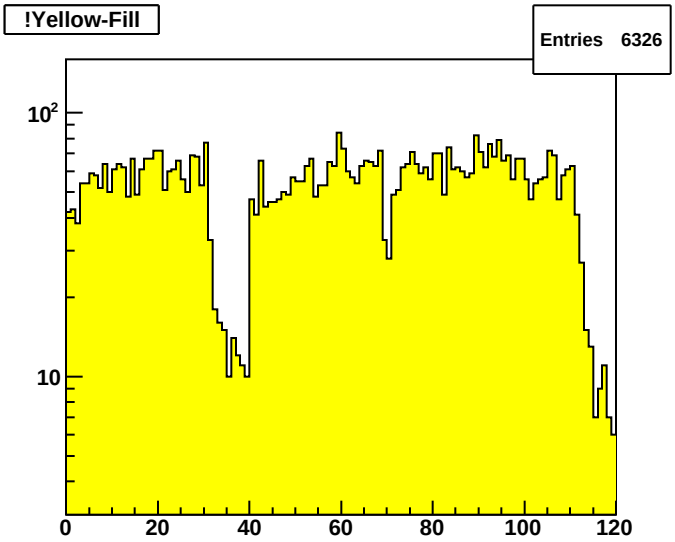

DAQ10k HT bits
Entries 75912
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

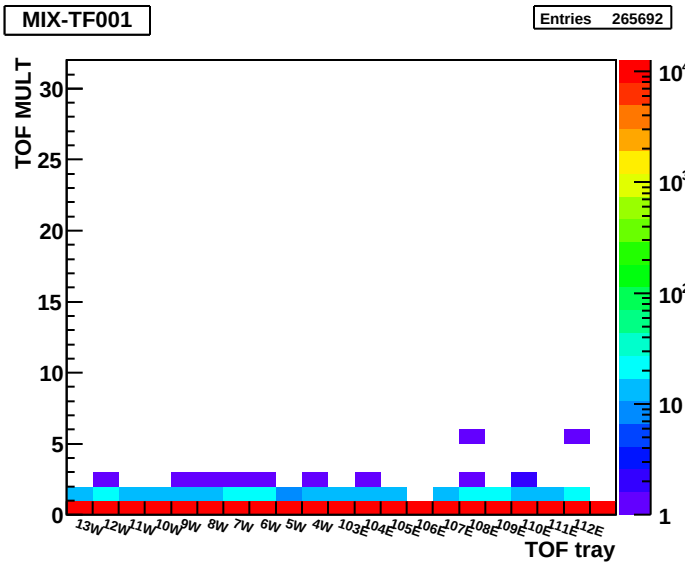

DAQ10k HT bits errors
Entries 75930
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

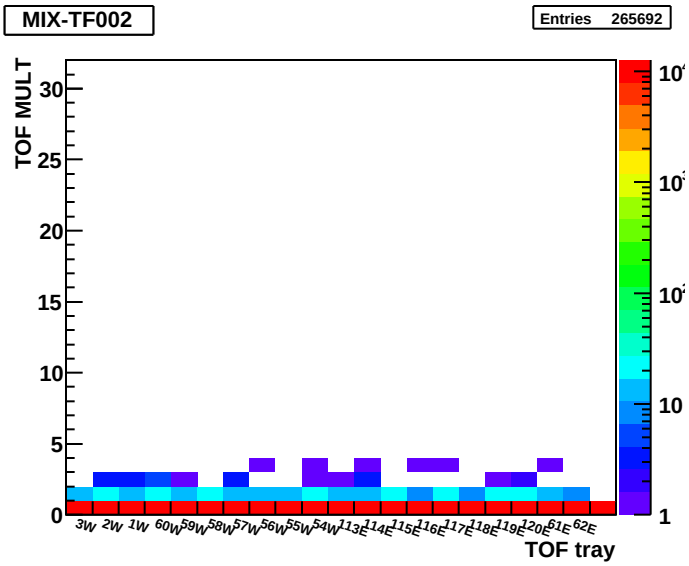

TPC Readout Mask (simulated)
Entries 82238
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30

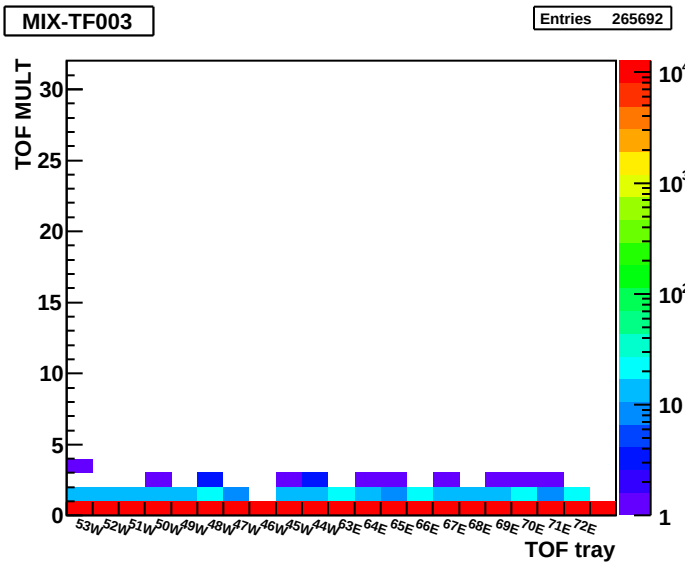

BunchId7Bit (all events)
Entries 6326
10^2
10
0 20 40 60 80 100 120

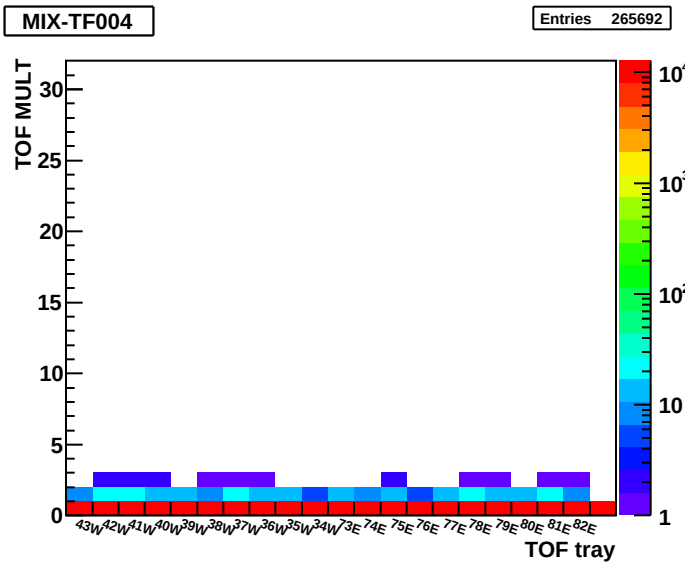

Abort-gaps
Entries 156
10
0 20 40 60 80 100 120

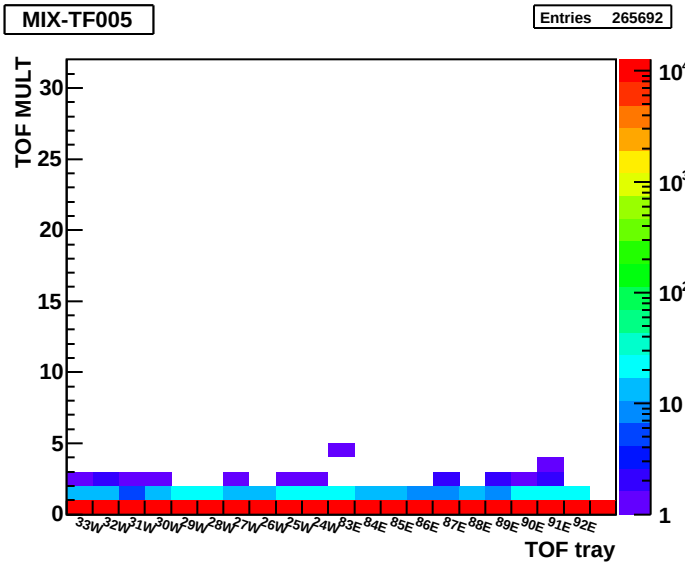

!Yellow-Fill
Entries 6326
10^2
10
0 20 40 60 80 100 120

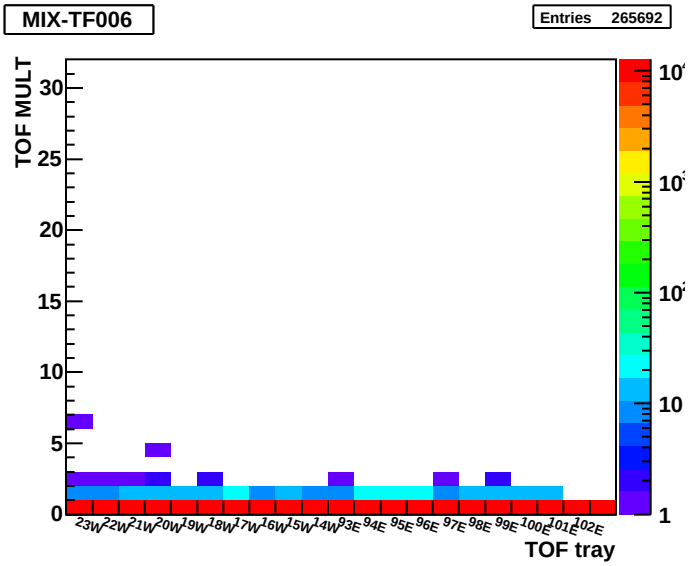

MIX-TF001
Entries 265692
TOF MULT
TOF tray

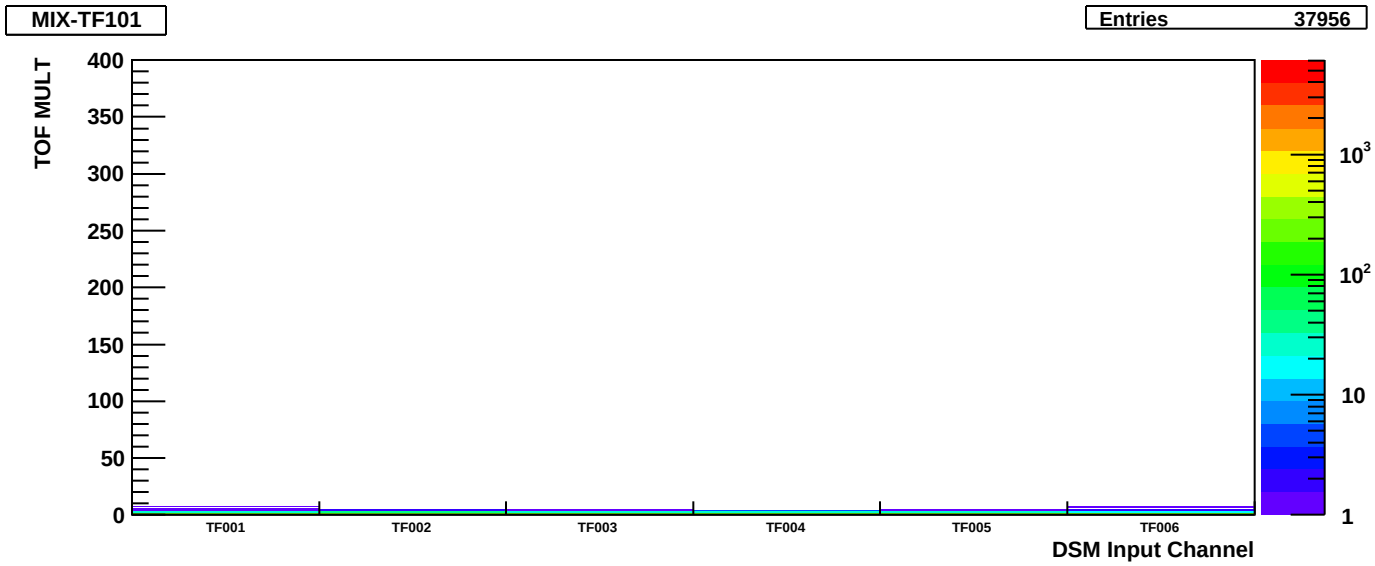

MIX-TF002
Entries 265692
TOF MULT
TOF tray

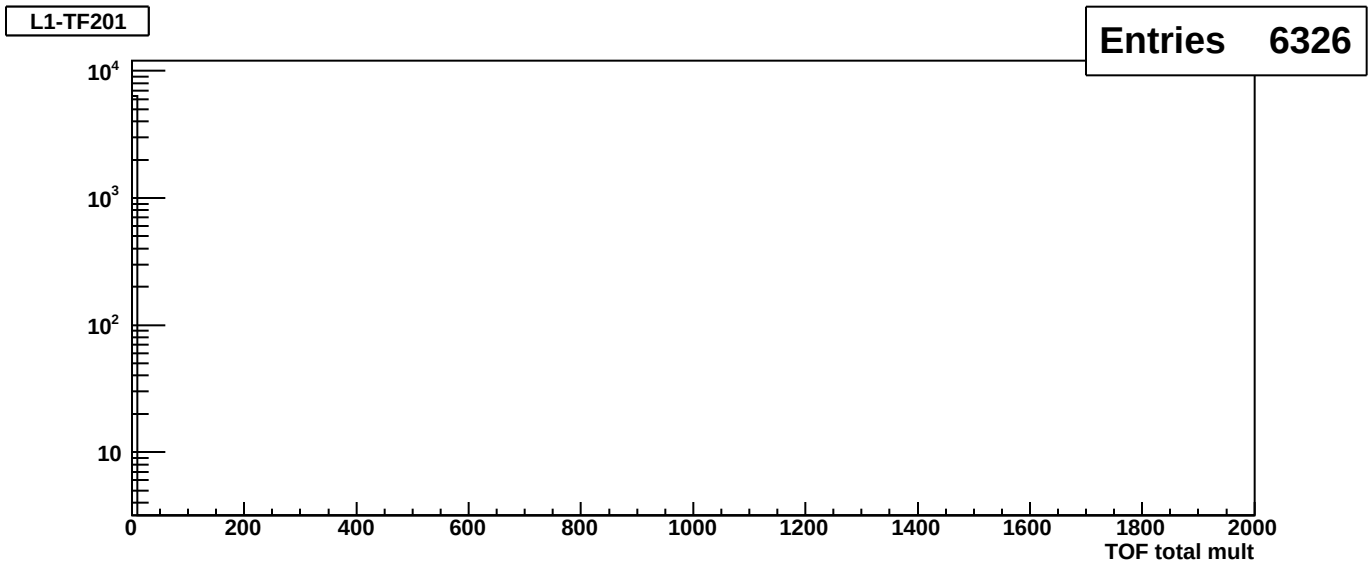

MIX-TF003
Entries 265692
TOF MULT
TOF tray

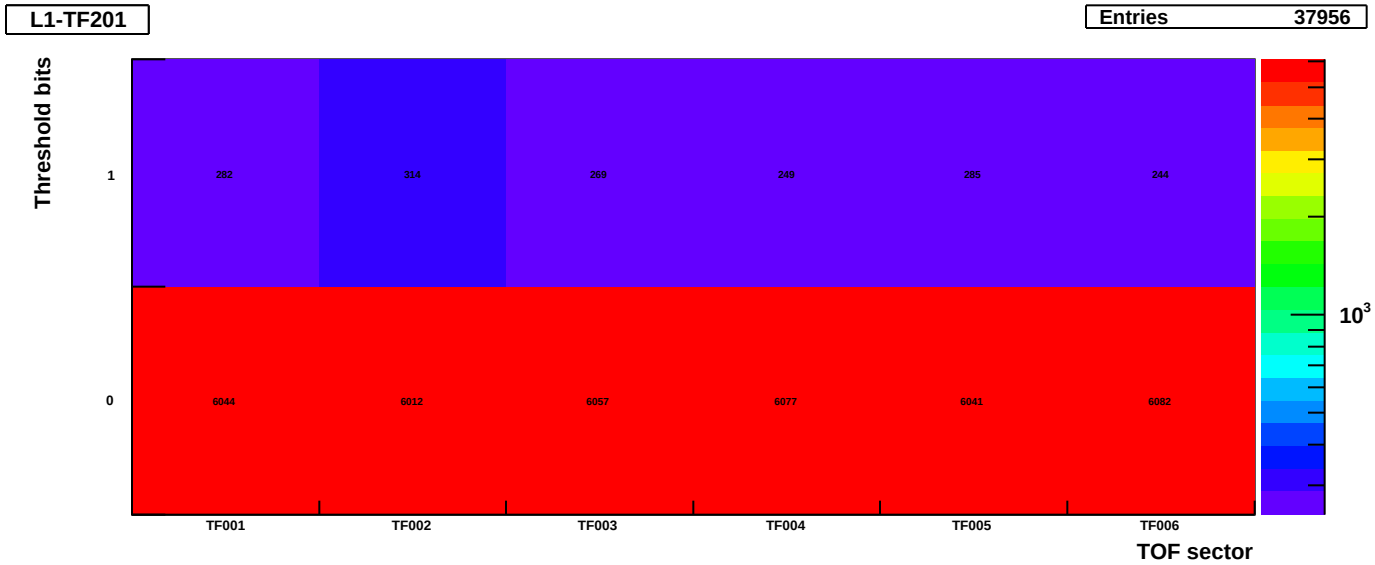

MIX-TF004
Entries 265692
TOF MULT
TOF tray

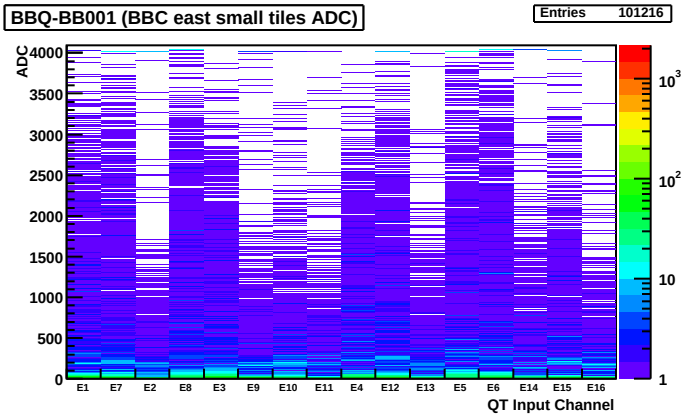

MIX-TF005
Entries 265692
TOF MULT
TOF tray

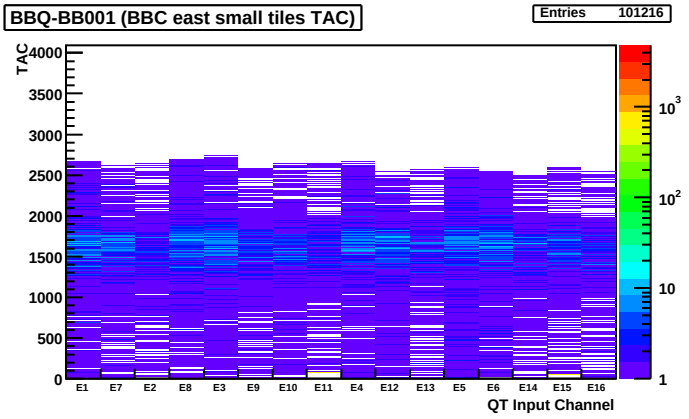

MIX-TF006
Entries 265692
TOF MULT
TOF tray

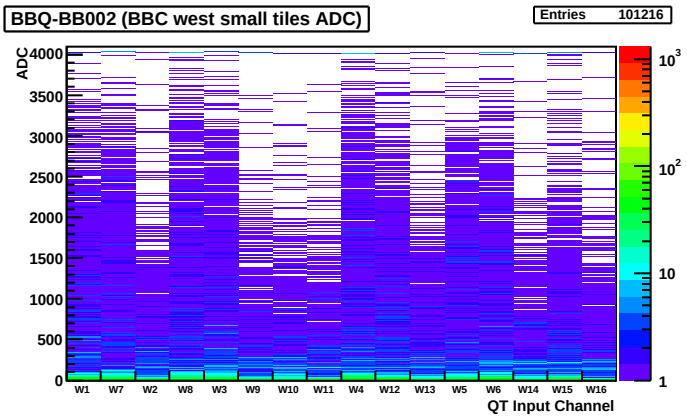

MIX-TF101
Entries 37956
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

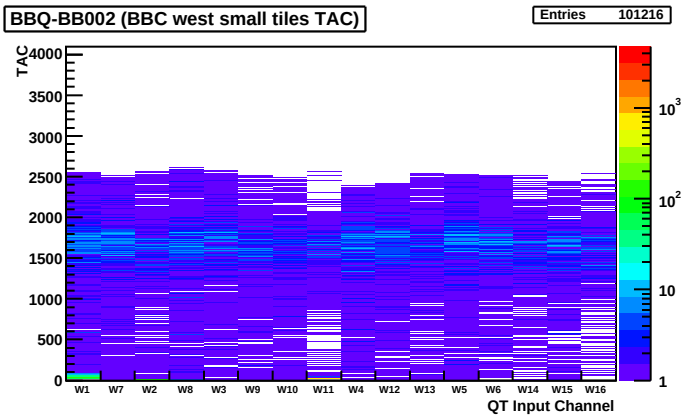

L1-TF201
Entries 6326
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

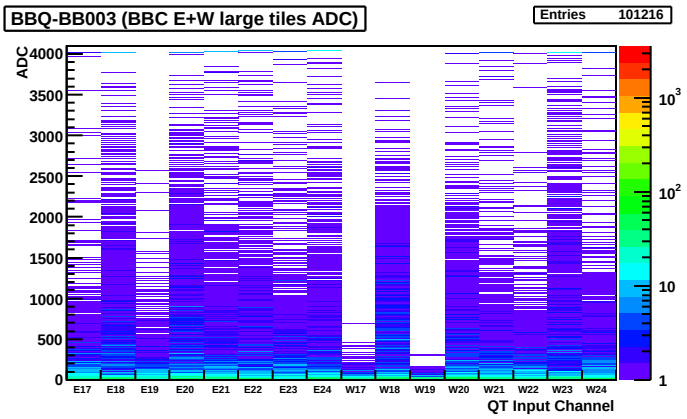

L1-TF201
Entries 37956
Threshold bits
1
0
282
314
269
249
285
244
6044
6012
6057
6077
6041
6082
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3

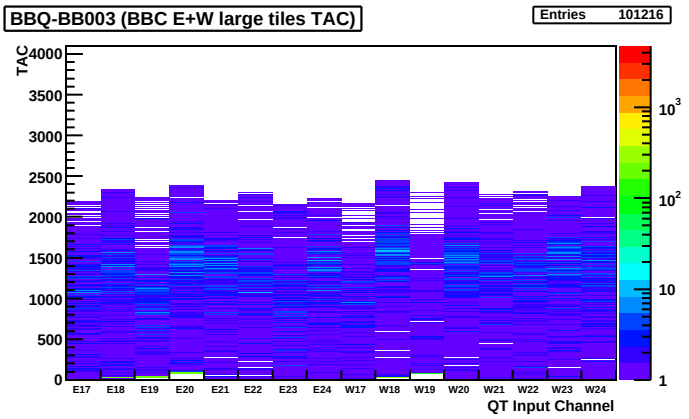

BBQ-BB001 (BBC east small tiles ADC)
Entries 101216
ADC
QT Input Channel

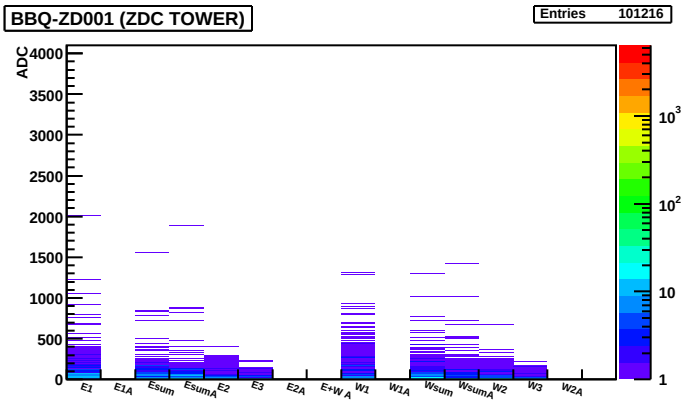

BBQ-BB001 (BBC east small tiles TAC)
Entries 101216
TAC
QT Input Channel

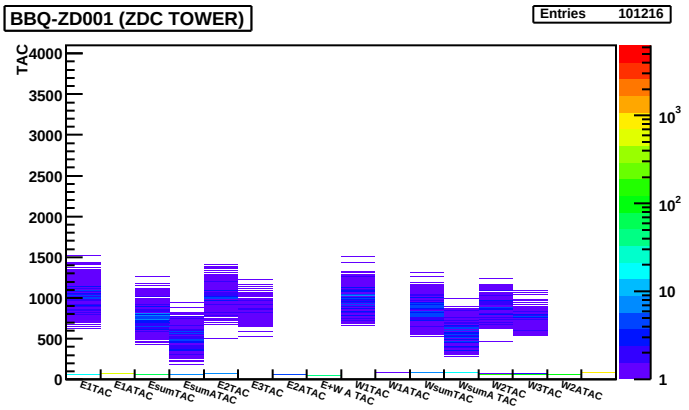

BBQ-BB002 (BBC west small tiles ADC)
Entries 101216
ADC
QT Input Channel

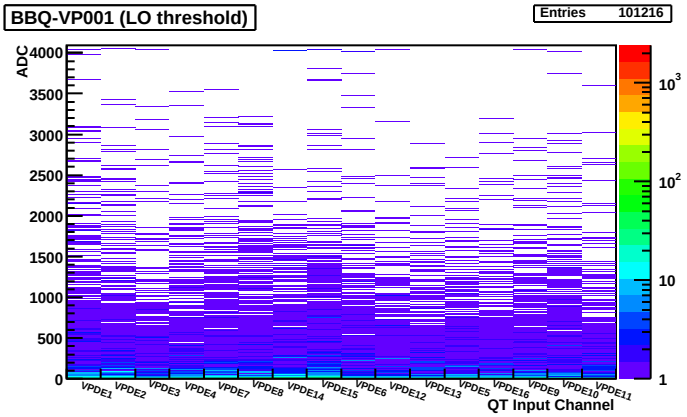

BBQ-BB002 (BBC west small tiles TAC)
Entries 101216
TAC
QT Input Channel

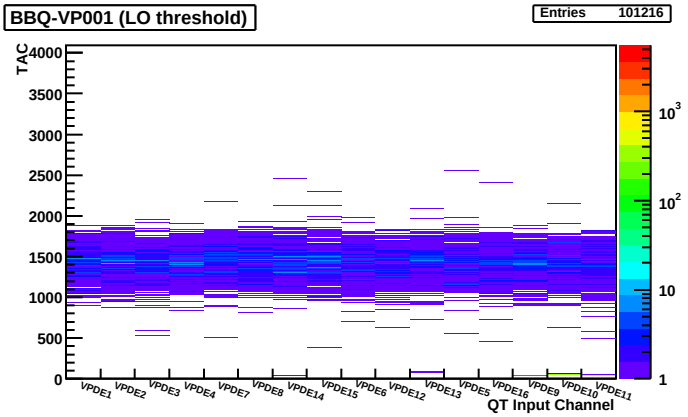

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 101216
ADC
QT Input Channel

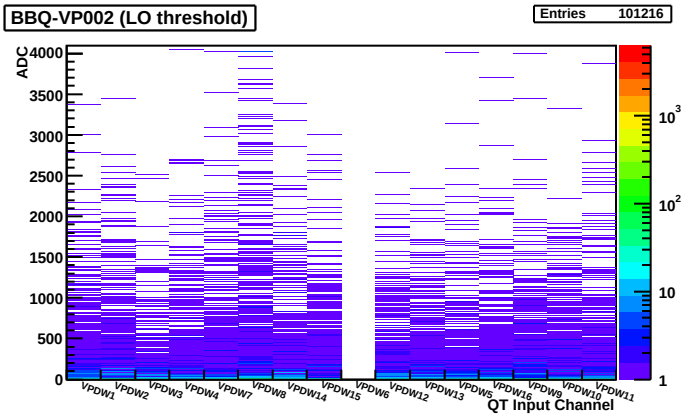

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 101216
TAC
QT Input Channel

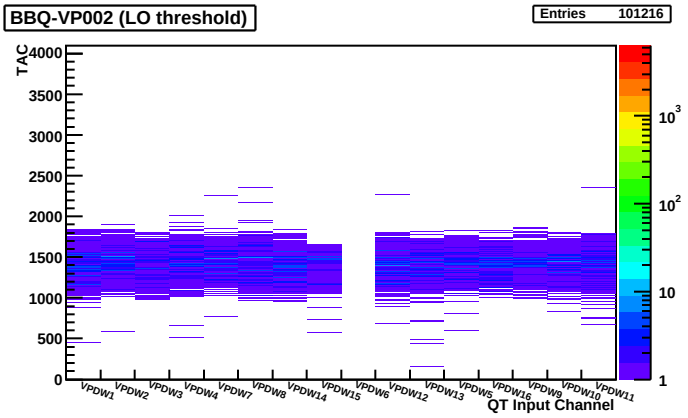

BBQ-ZD001 (ZDC TOWER)
Entries 101216
ADC

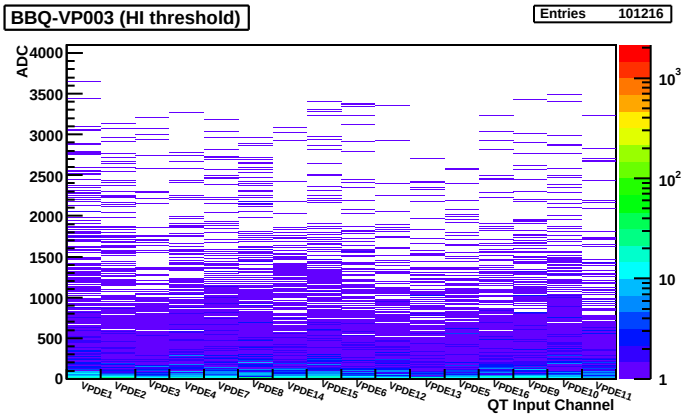

BBQ-ZD001 (ZDC TOWER)
Entries 101216
TAC

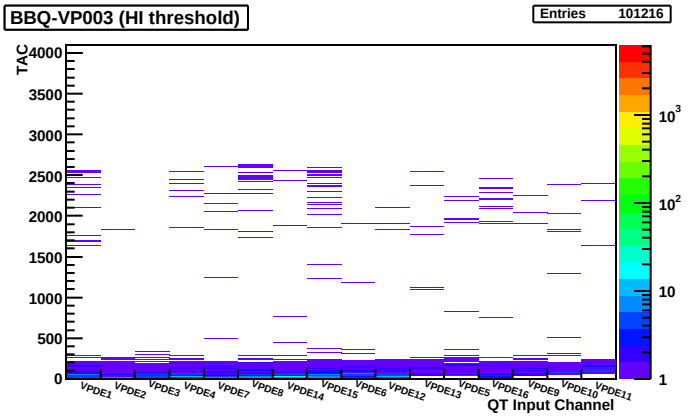

BBQ-VP001 (LO threshold)
Entries 101216
ADC
QT Input Channel

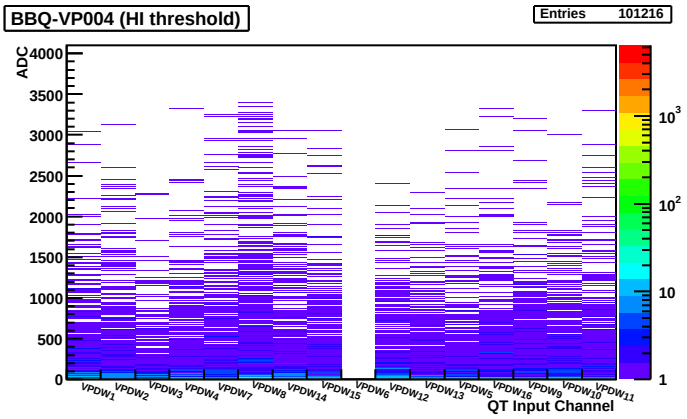

BBQ-VP001 (LO threshold)
Entries 101216
TAC
QT Input Channel

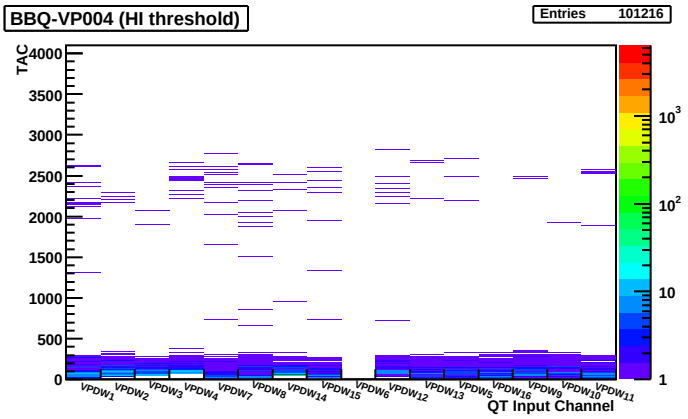

BBQ-VP002 (LO threshold)
Entries 101216
ADC
QT Input Channel

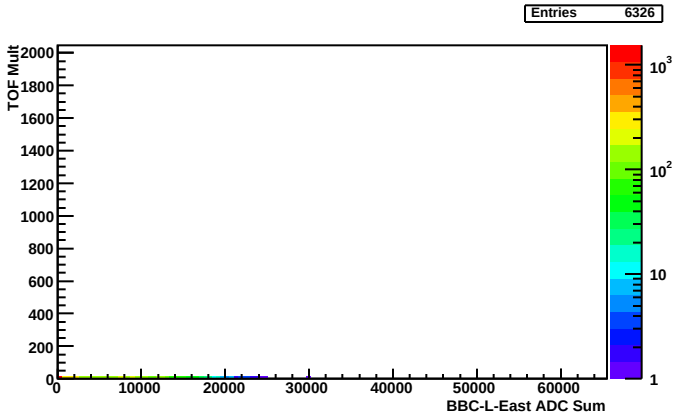

BBQ-VP002 (LO threshold)
Entries 101216
TAC
QT Input Channel

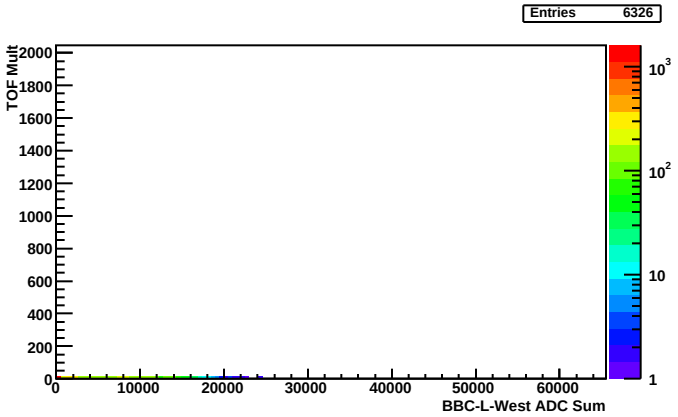

BBQ-VP003 (HI threshold)
Entries 101216
ADC
QT Input Channel

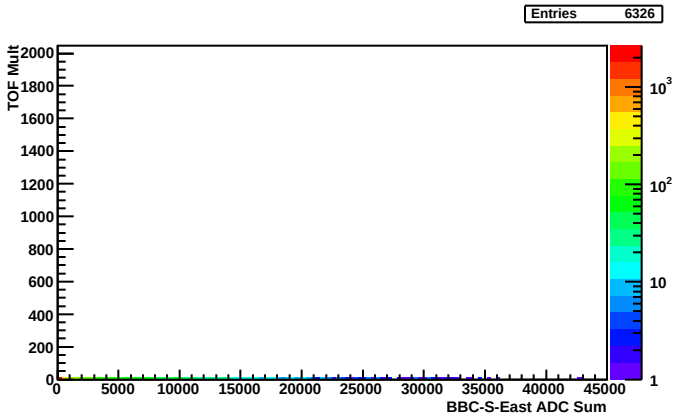

BBQ-VP003 (HI threshold)
Entries 101216
TAC
QT Input Channel

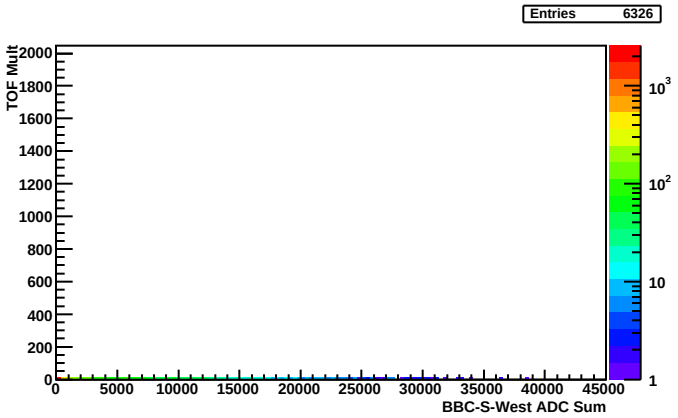

BBQ-VP004 (HI threshold)
Entries 101216
ADC
QT Input Channel

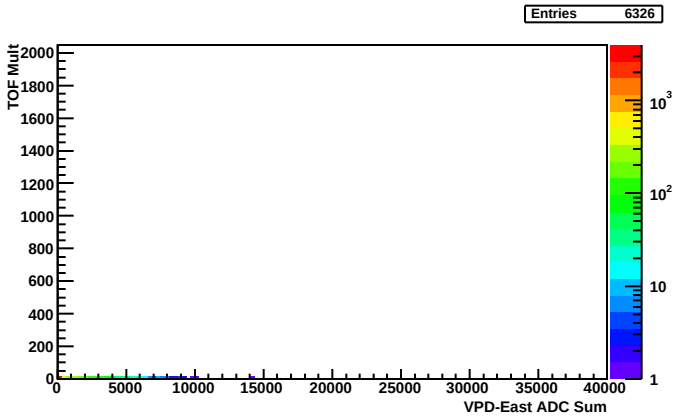

BBQ-VP004 (HI threshold)
Entries 101216
TAC
QT Input Channel

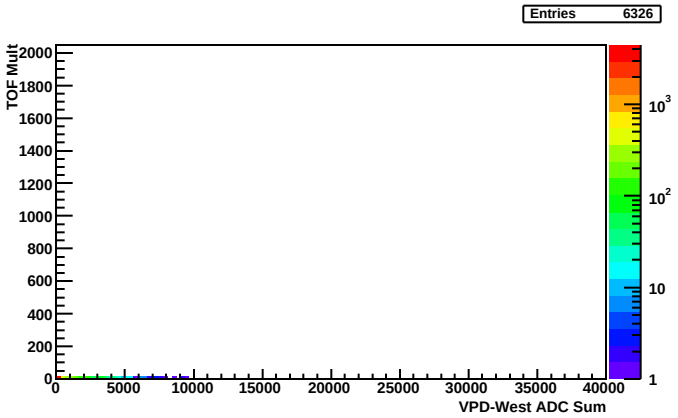

Entries 6326
TOF Mult
BBC-L-East ADC Sum

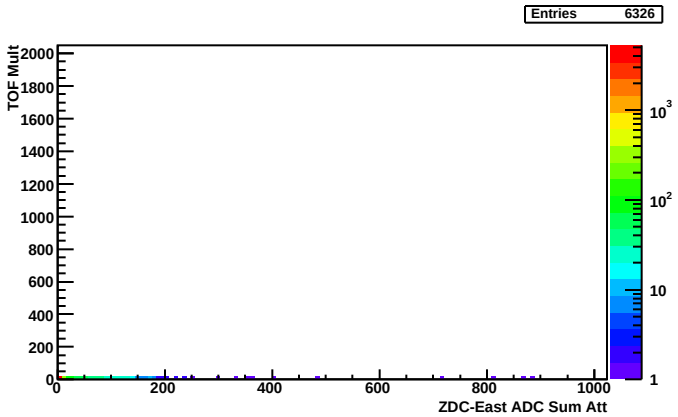

Entries 6326
TOF Mult
BBC-L-West ADC Sum

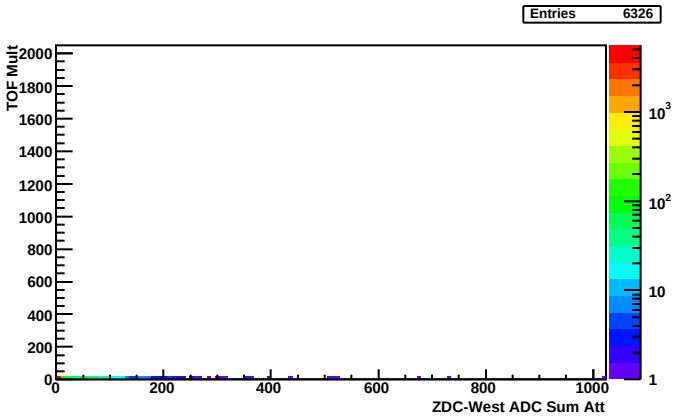

Entries 6326
TOF Mult
BBC-S-East ADC Sum

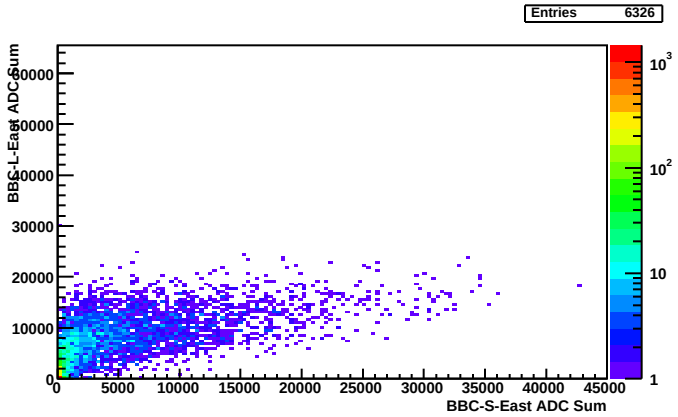

Entries 6326
TOF Mult
BBC-S-West ADC Sum

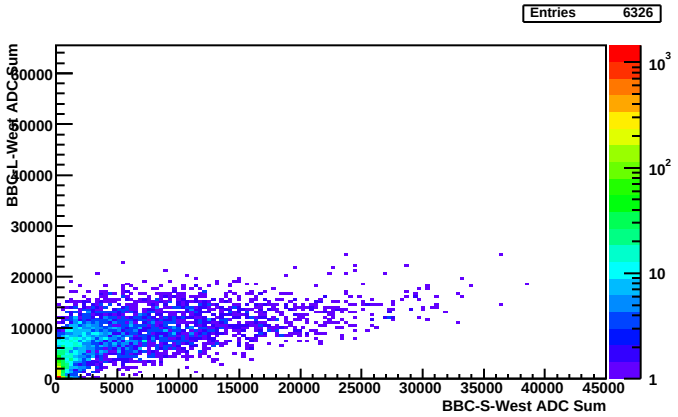

Entries 6326
TOF Mult
VPD-East ADC Sum

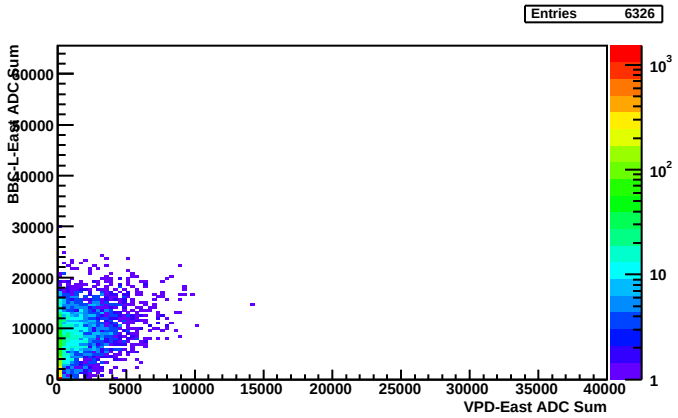

Entries 6326
TOF Mult
VPD-West ADC Sum

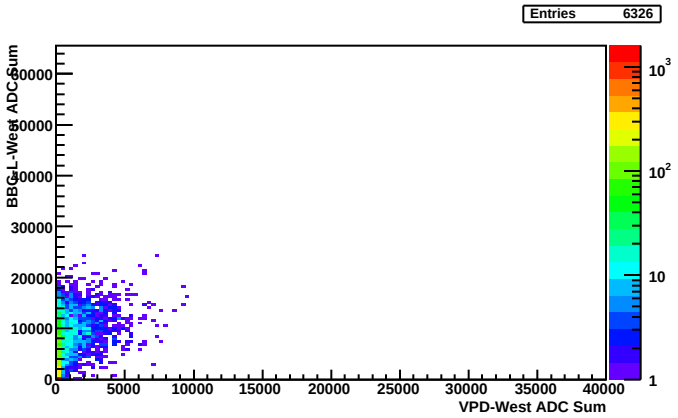

Entries 6326
TOF Mult
ZDC-East ADC Sum Att

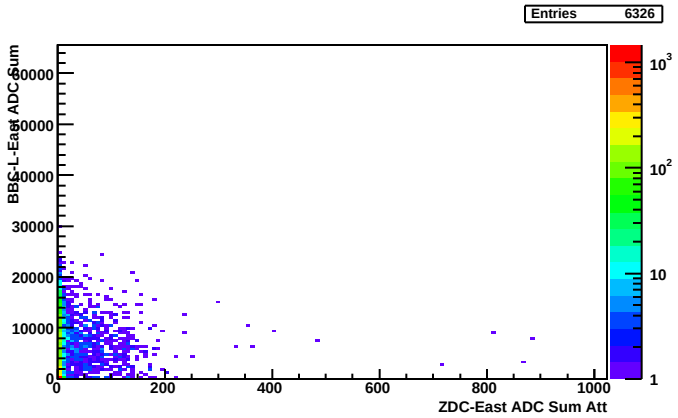

Entries 6326
TOF Mult
ZDC-West ADC Sum Att

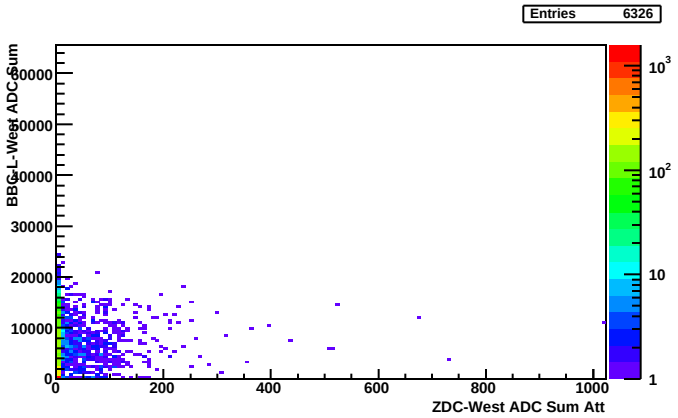

Entries 6326
BBC-L-East ADC Sum
BBC-S-East ADC Sum

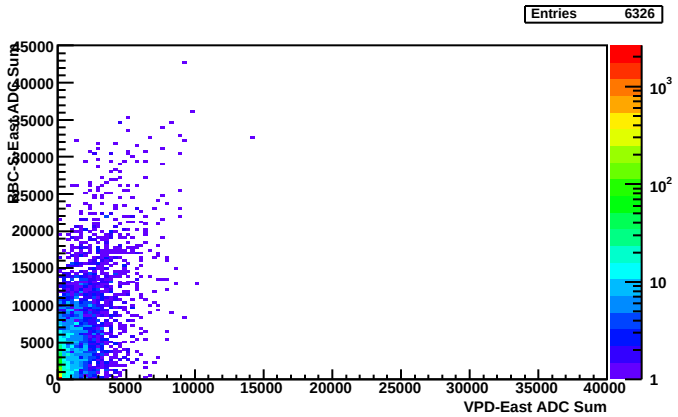

Entries 6326
BBC-L-West ADC Sum
BBC-S-West ADC Sum

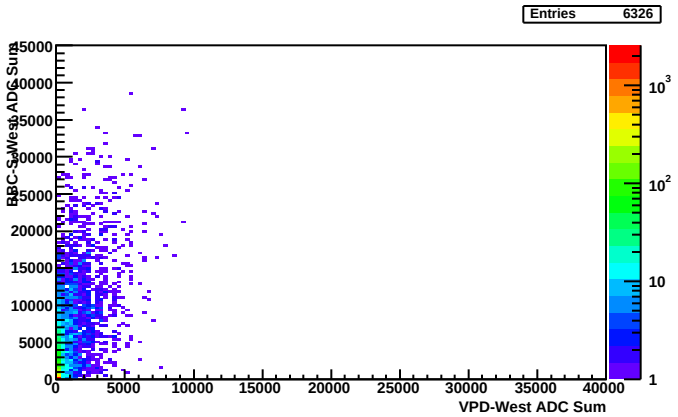

Entries 6326
BBC-L-East ADC Sum
VPD-East ADC Sum

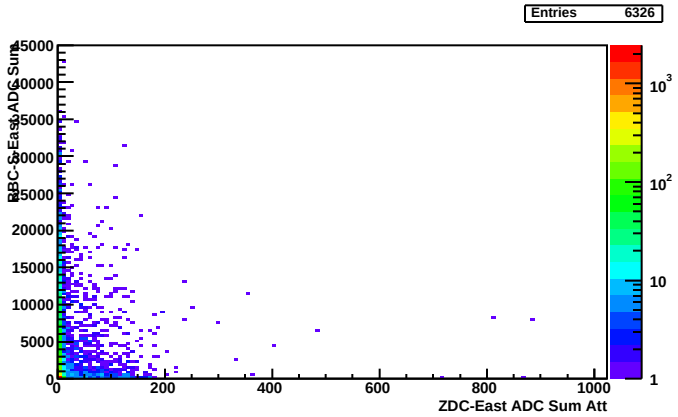

Entries 6326
BBC-L-West ADC Sum
VPD-West ADC Sum

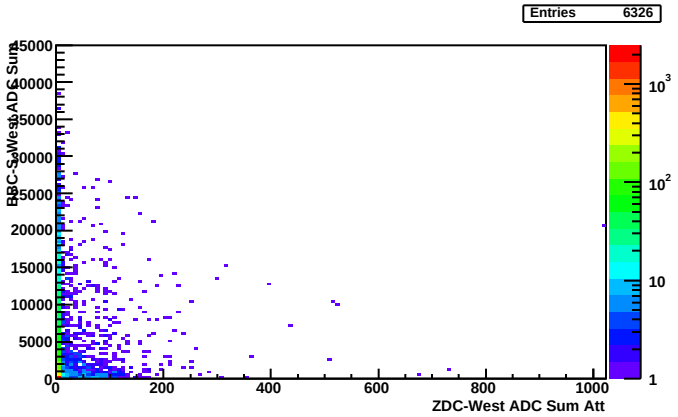

Entries 6326
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

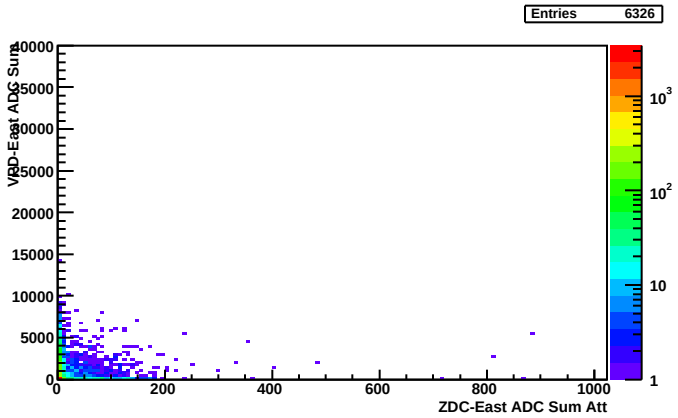

Entries 6326
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

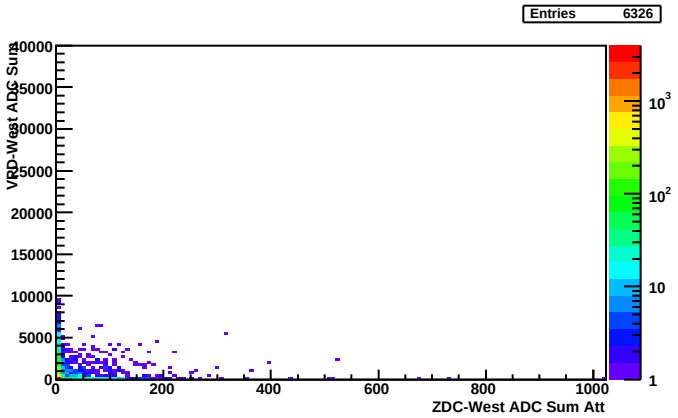

Entries 6326
BBC-S-East ADC Sum
VPD-East ADC Sum

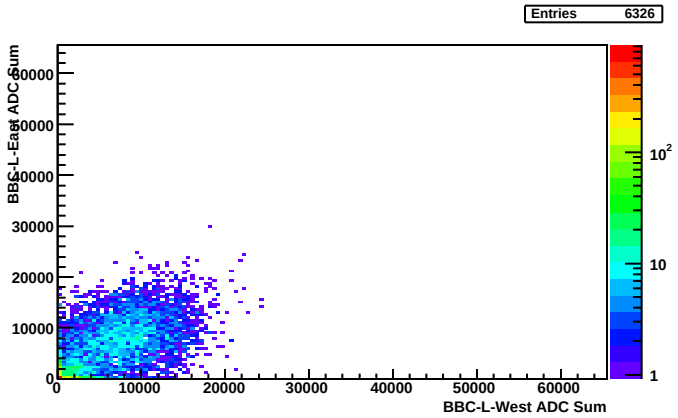

Entries 6326
BBC-S-West ADC Sum
VPD-West ADC Sum

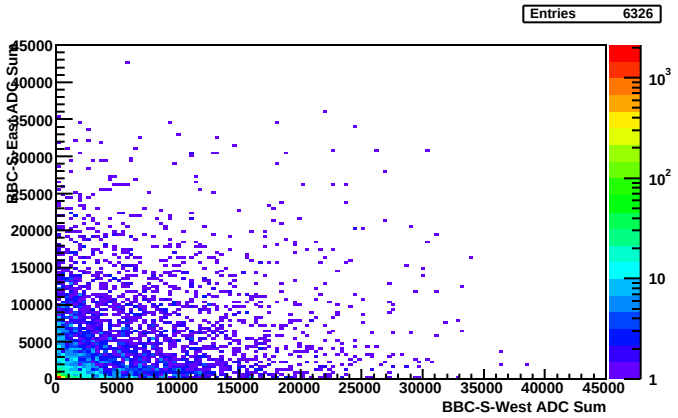

Entries 6326
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

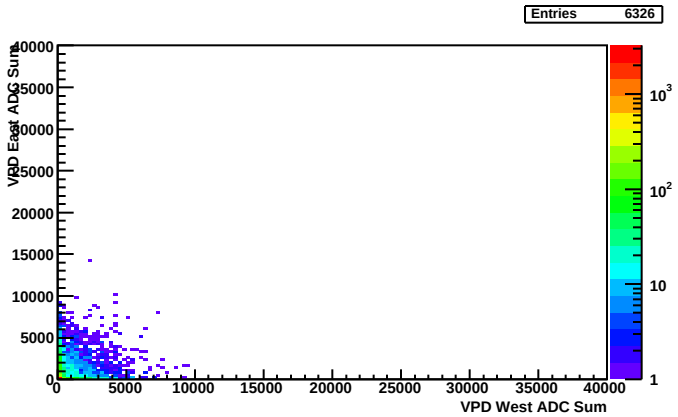

Entries 6326
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

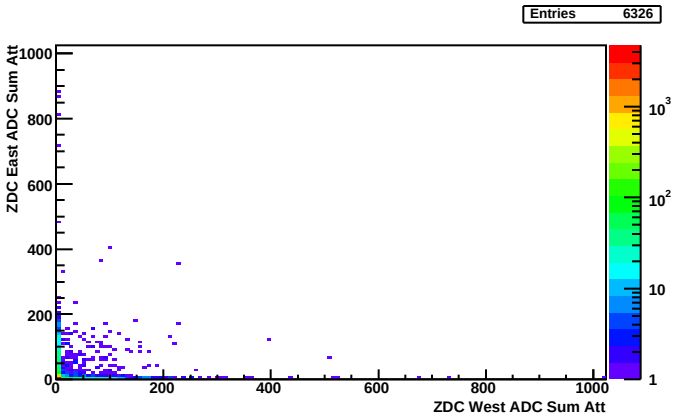

Entries 6326
VPD-East ADC Sum
ZDC-East ADC Sum Att

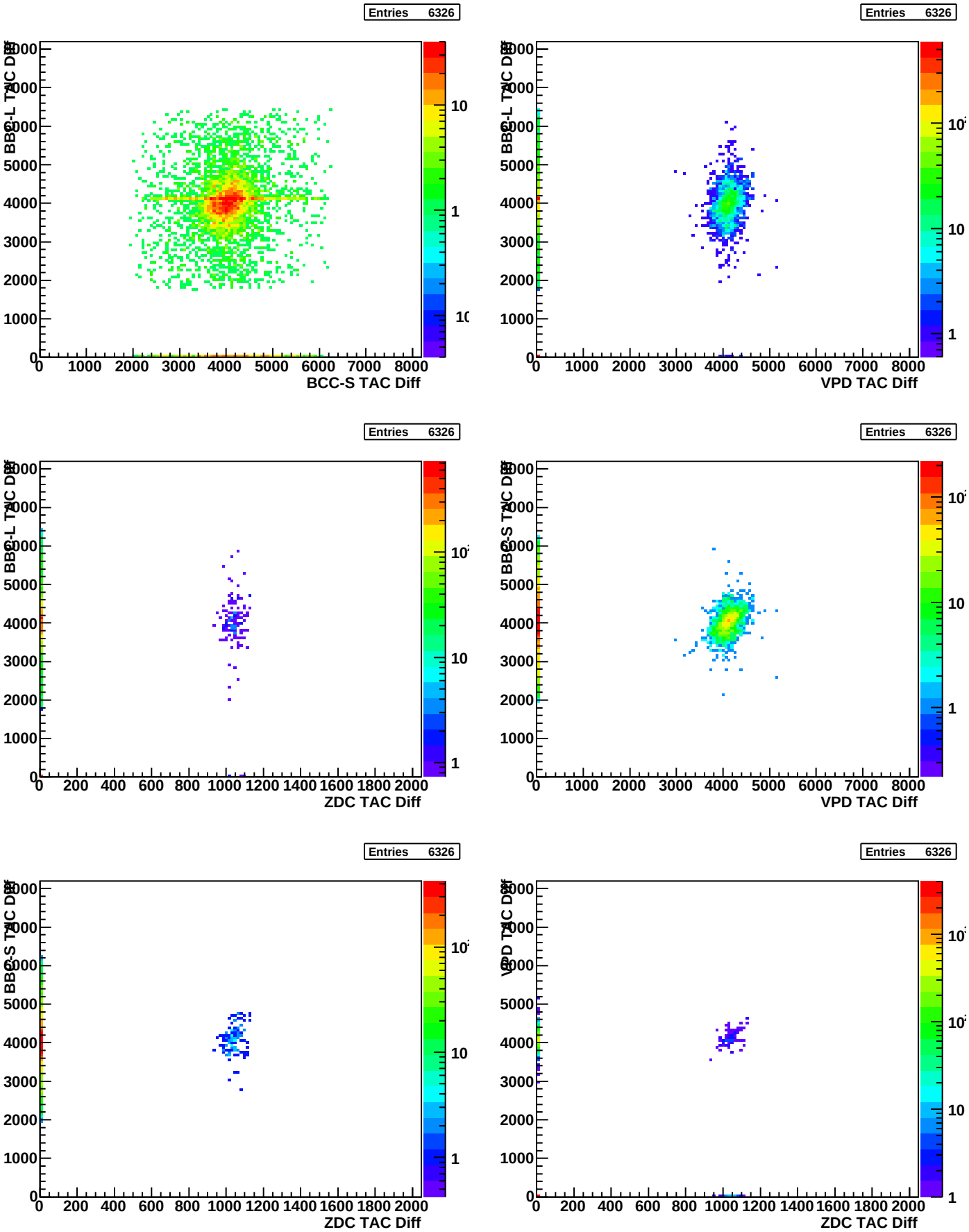

Entries 6326
VPD-West ADC Sum
ZDC-West ADC Sum Att

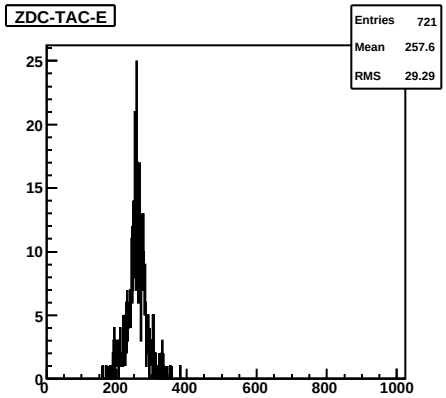

Entries 6326
BBC-L-East ADC Sum
BBC-L-West ADC Sum

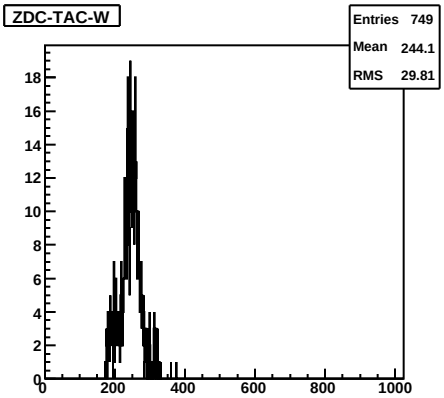

Entries 6326
BBC-S-East ADC Sum
BBC-S-West ADC Sum

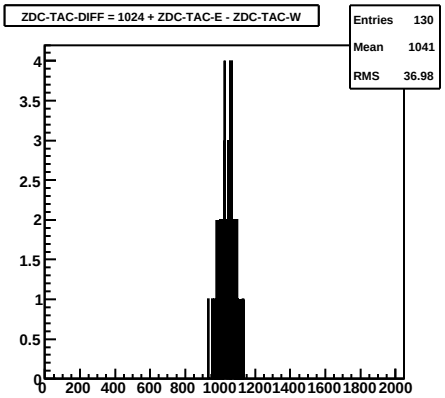

Entries 6326
VPD East ADC Sum
VPD West ADC Sum

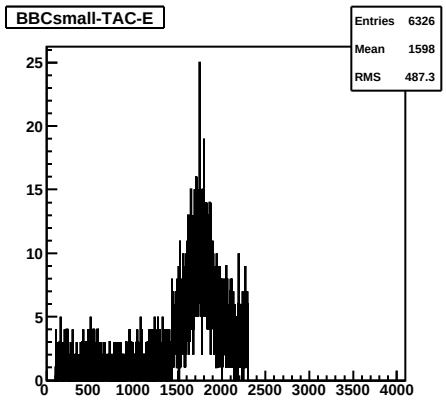

Entries 6326
ZDC East ADC Sum Att
ZDC West ADC Sum Att

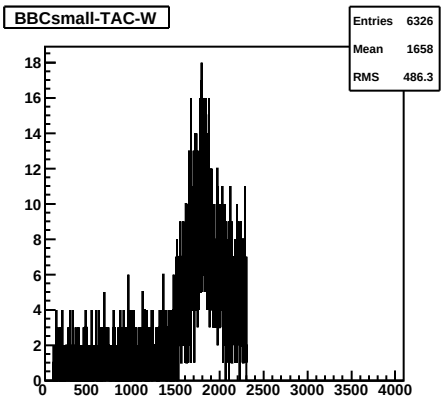

Entries 6326
BBC-L TAC Diff
BCC-S TAC Diff
VPD TAC Diff
ZDC TAC Diff
BBC-S TAC Diff

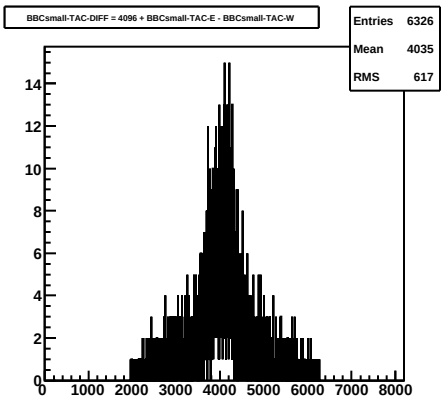

ZDC-TAC-E
Entries 721
Mean 257.6
RMS 29.29

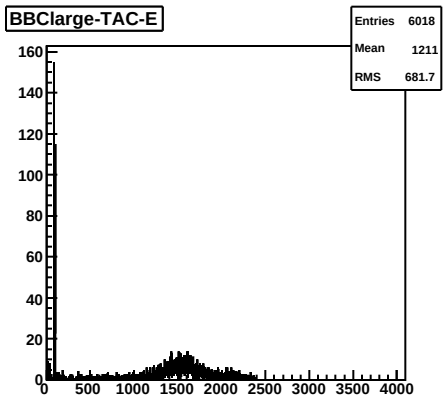

ZDC-TAC-W
Entries 749
Mean 244.1
RMS 29.81

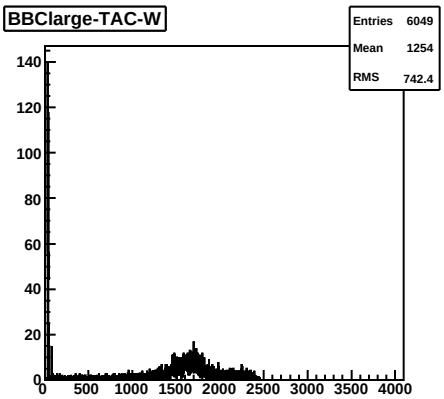

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 130
Mean 1041
RMS 36.98

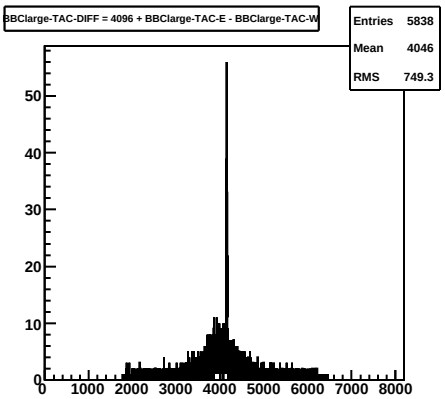

BBCsmall-TAC-E
Entries 6326
Mean 1598
RMS 487.3

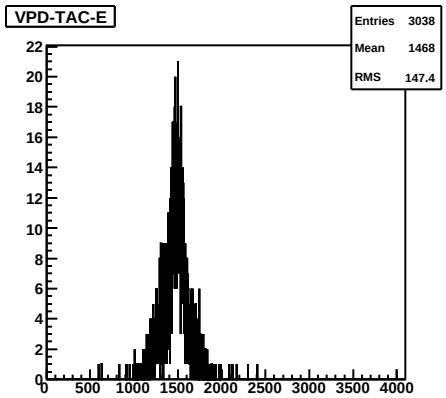

BBCsmall-TAC-W
Entries 6326
Mean 1658
RMS 486.3

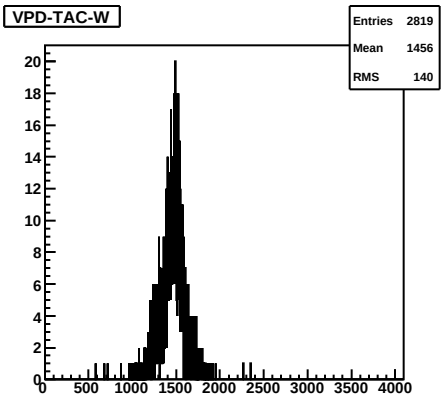

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 6326
Mean 4035
RMS 617

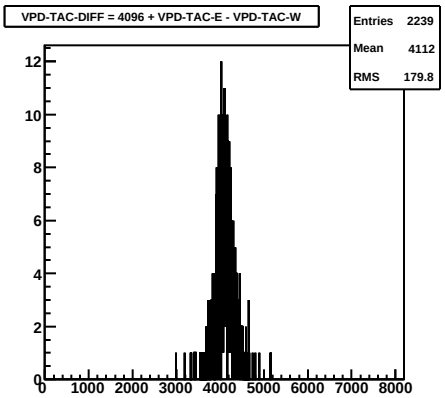

BBClarge-TAC-E
Entries 6018
Mean 1211
RMS 681.7

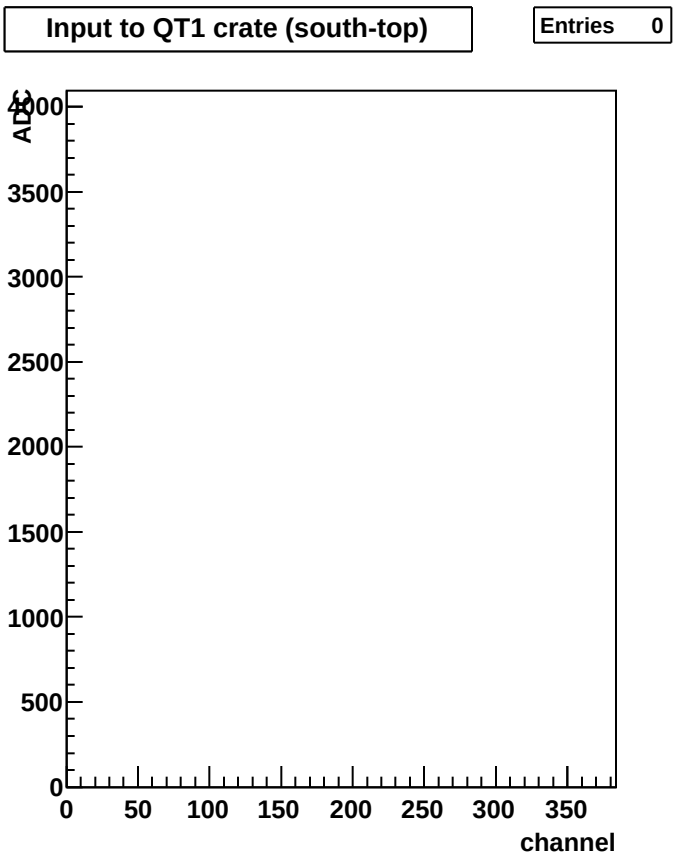

BBClarge-TAC-W
Entries 6049
Mean 1254
RMS 742.4

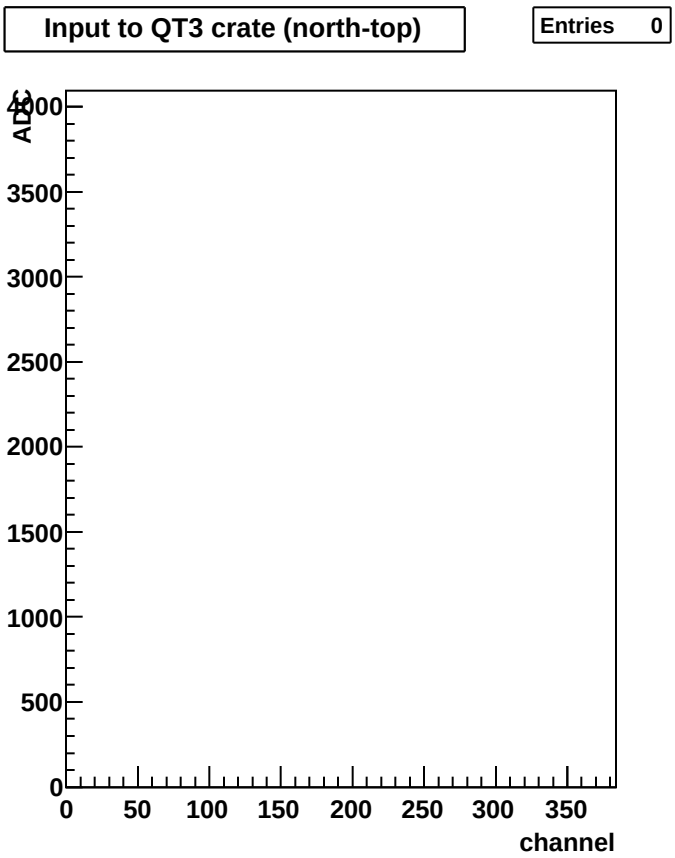

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 5838
Mean 4046
RMS 749.3

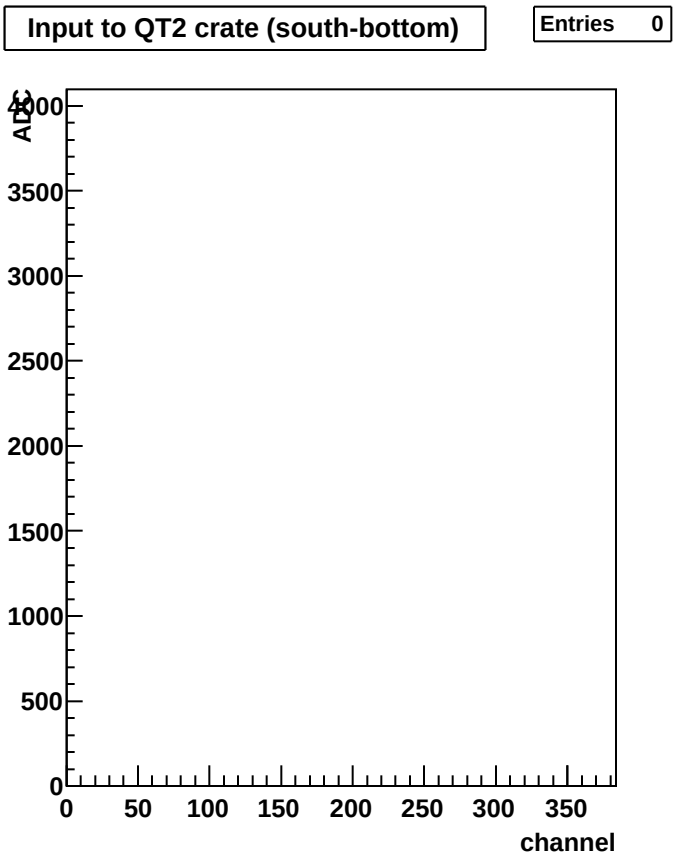

VPD-TAC-E
Entries 3038
Mean 1468
RMS 147.4

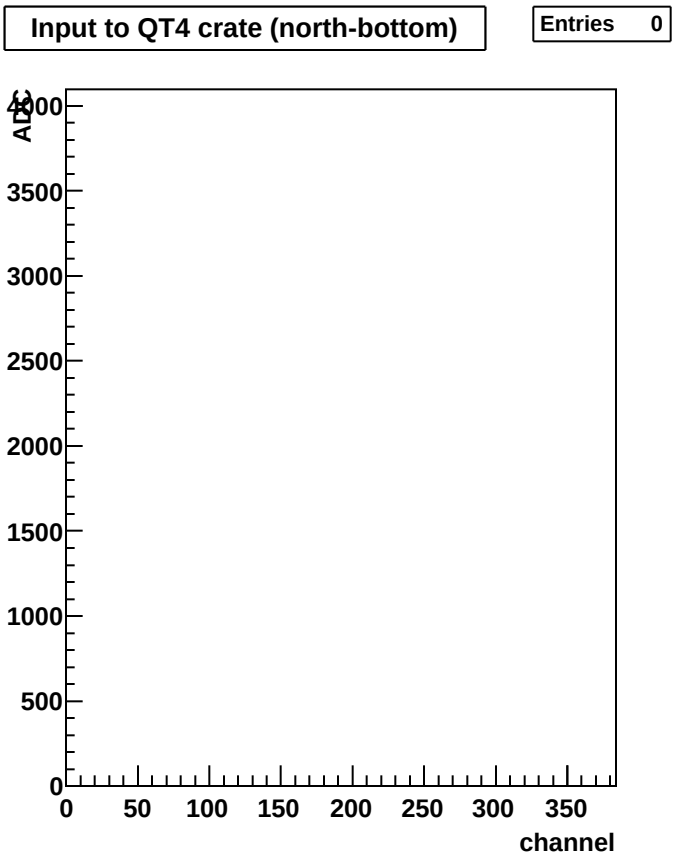

VPD-TAC-W
Entries 2819
Mean 1456
RMS 140

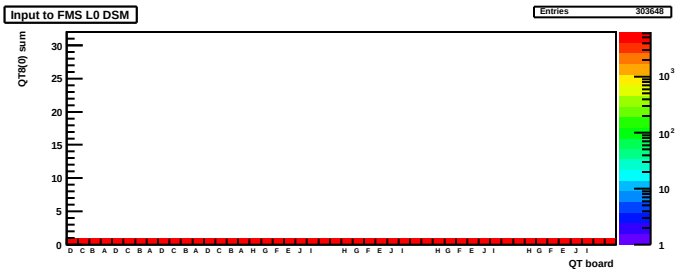

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 2239
Mean 4112
RMS 179.8

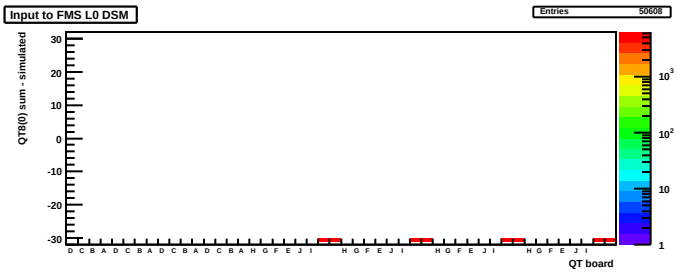

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

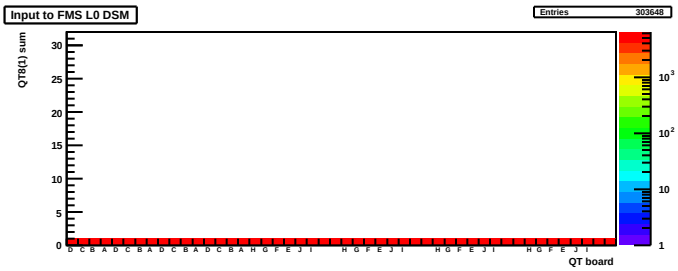

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

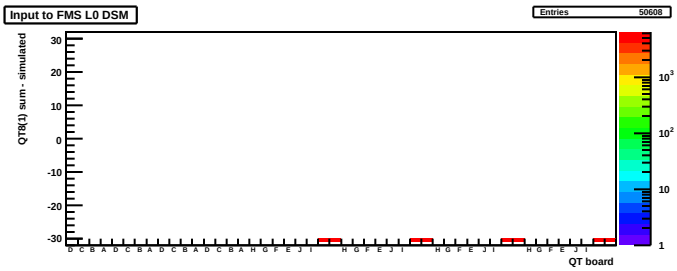

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

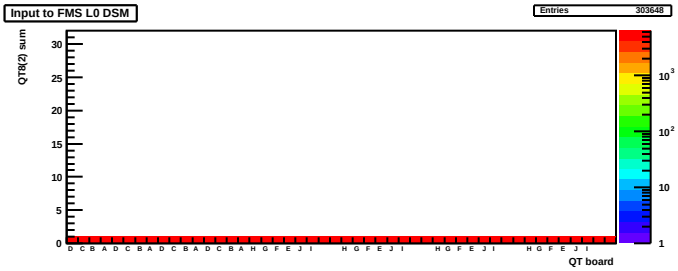

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

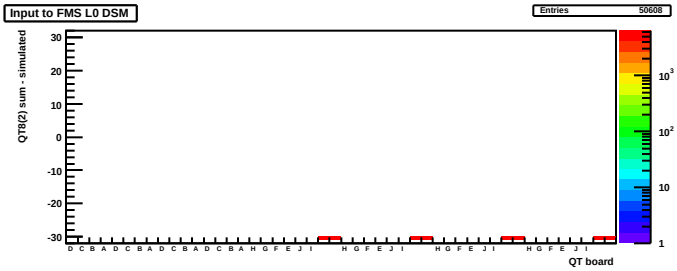

Input to FMS L0 DSM
Entries 303648
QT8(0) sum
QT board

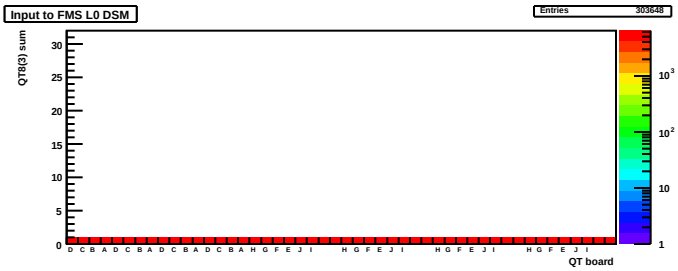

Input to FMS L0 DSM
Entries 50608
QT8(0) sum - simulated
QT board

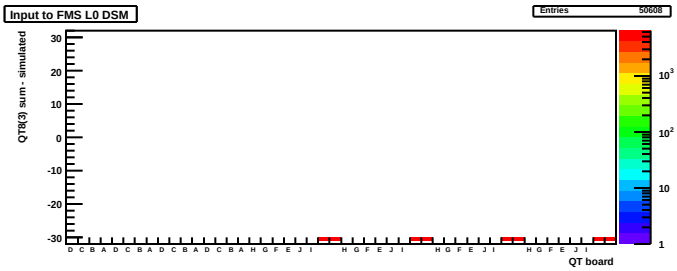

Input to FMS L0 DSM
Entries 303648
QT8(1) sum
QT board

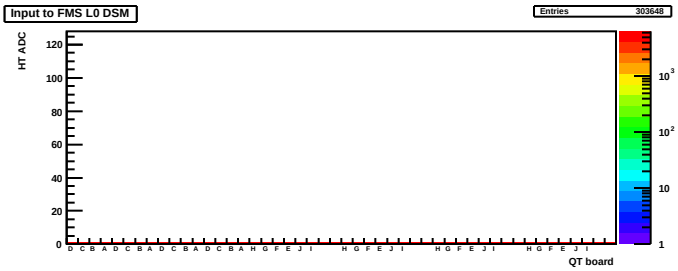

Input to FMS L0 DSM
Entries 50608
QT8(1) sum - simulated
QT board

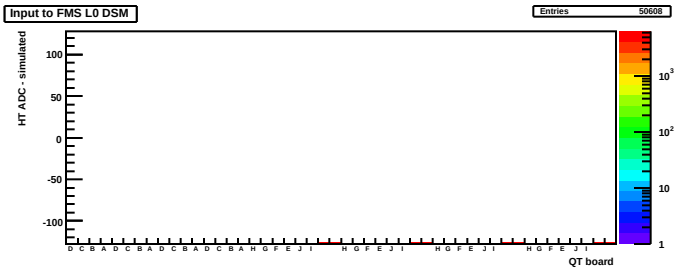

Input to FMS L0 DSM
Entries 303648
QT8(2) sum
QT board

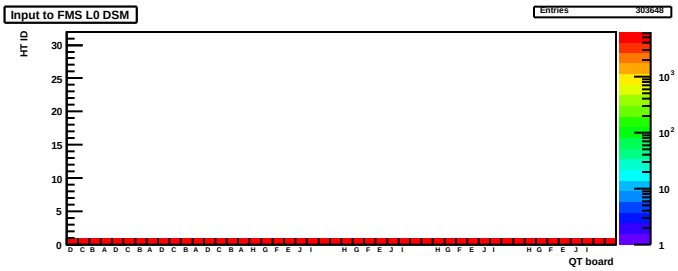

Input to FMS L0 DSM
Entries 50608
QT8(2) sum - simulated
QT board

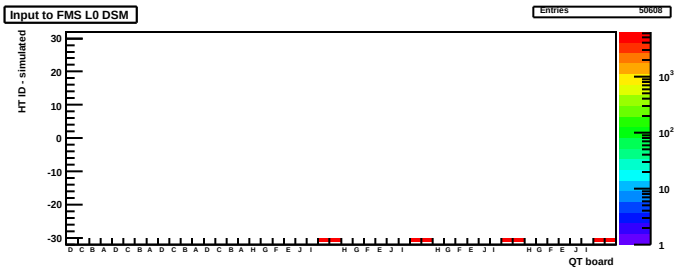

Input to FMS L0 DSM
Entries 303648
QT8(3) sum
QT board

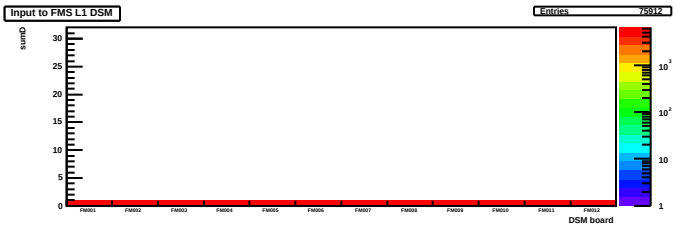

Input to FMS L0 DSM
Entries 50608
QT8(3) sum - simulated
QT board

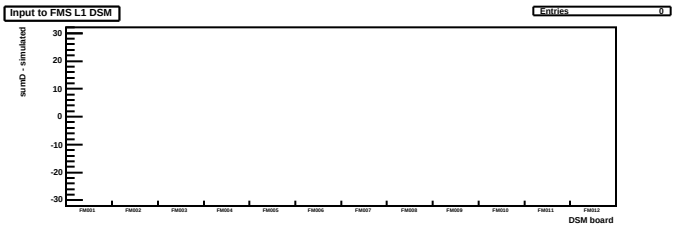

Input to FMS L0 DSM
Entries 303648
HT ADC
QT board

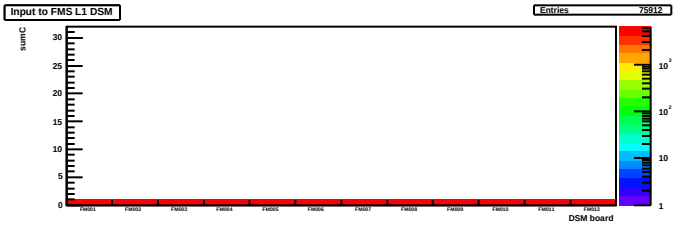

Input to FMS L0 DSM
Entries 50608
HT ADC - simulated
QT board

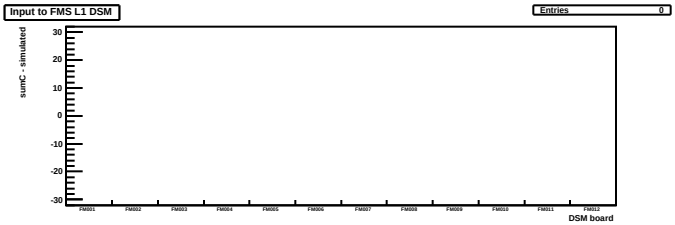

Input to FMS L0 DSM
Entries 303648
HT ID
QT board

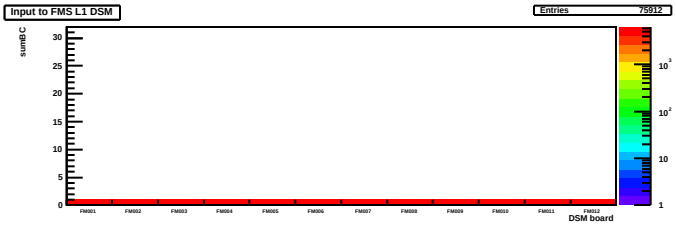

Input to FMS L0 DSM
Entries 50608
HT ID - simulated
QT board

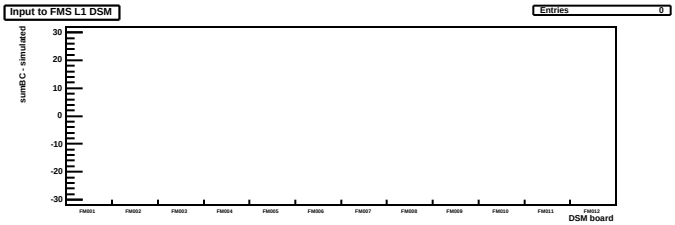

Input to FMS L1 DSM
Entries 75912
sumD
DSM board

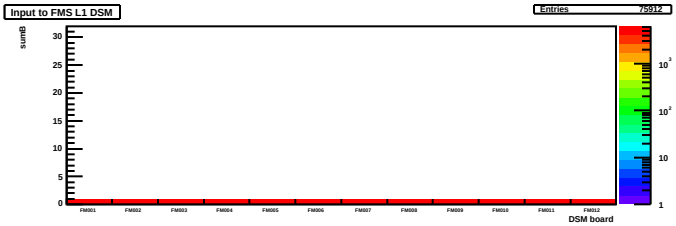

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

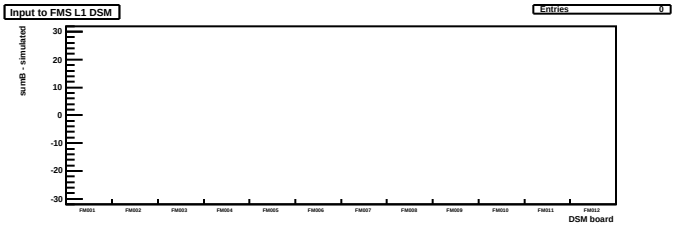

Input to FMS L1 DSM
Entries 75912
sumC
DSM board

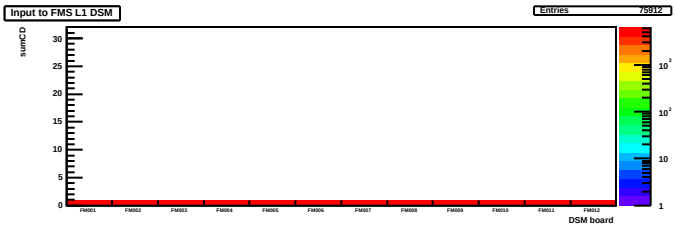

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

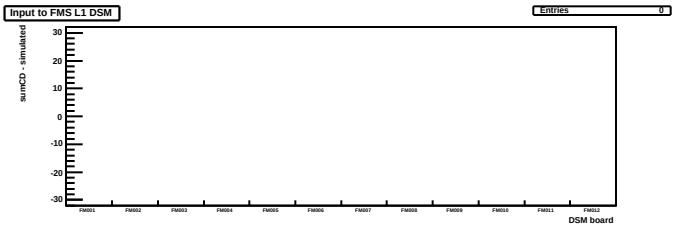

Input to FMS L1 DSM
Entries 75912
sumBC
DSM board

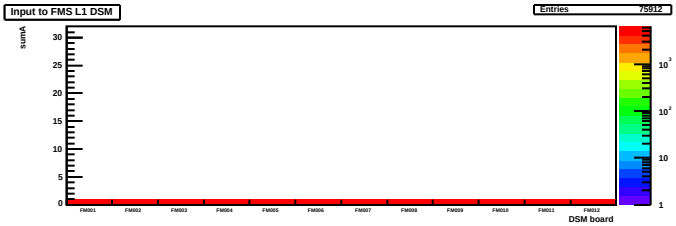

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

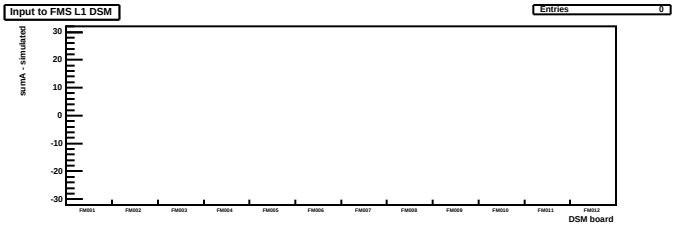

Input to FMS L1 DSM
Entries 75912
sumB
DSM board

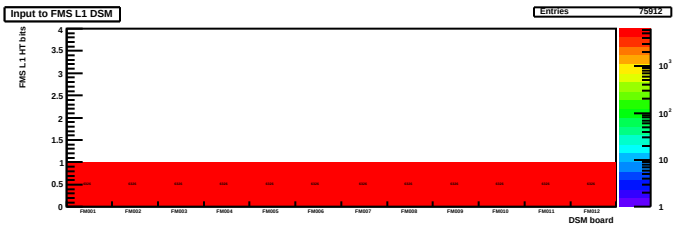

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

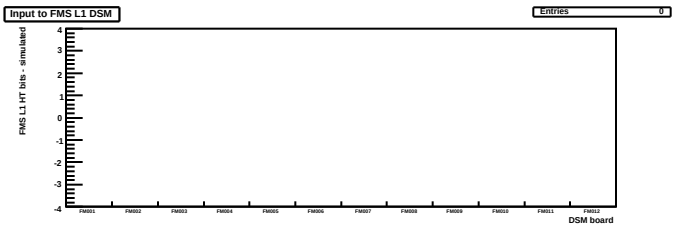

Input to FMS L1 DSM
Entries 75912
sumCD
DSM board

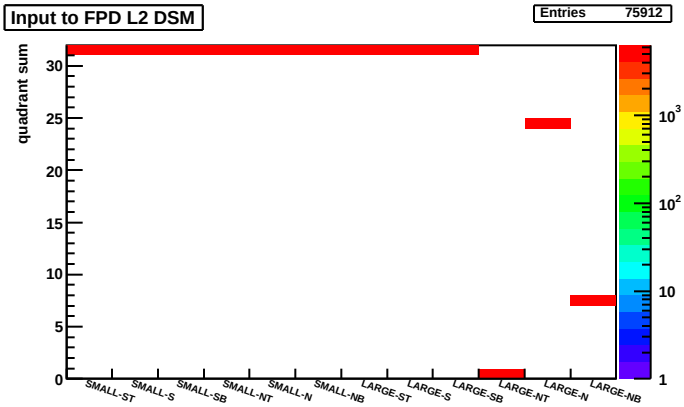

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

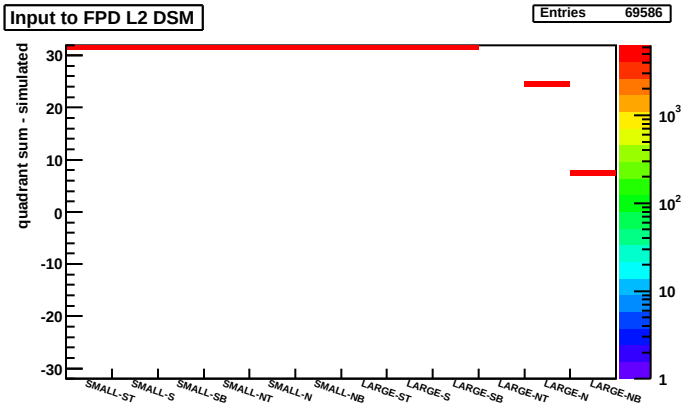

Input to FMS L1 DSM
Entries 75912
sumA
DSM board

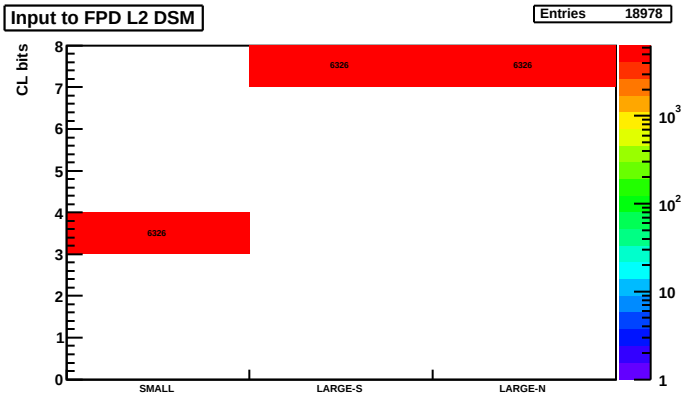

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

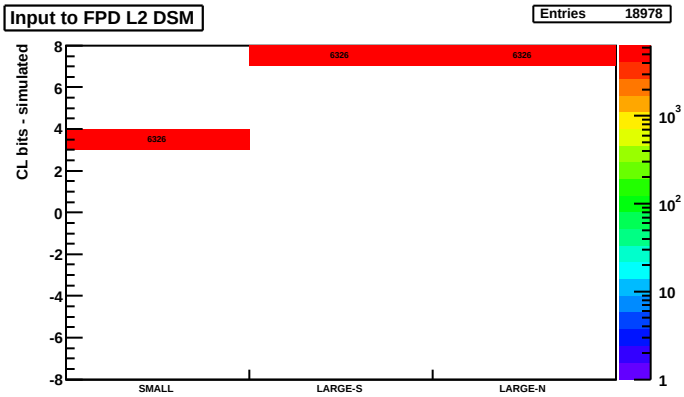

Input to FMS L1 DSM
Entries 75912
FMS L1 HT bits
DSM board

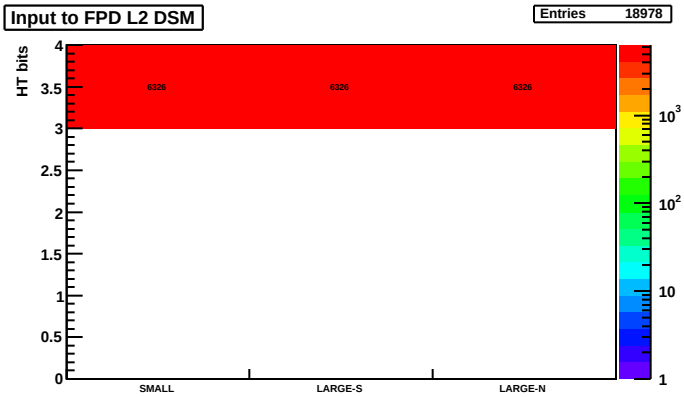

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

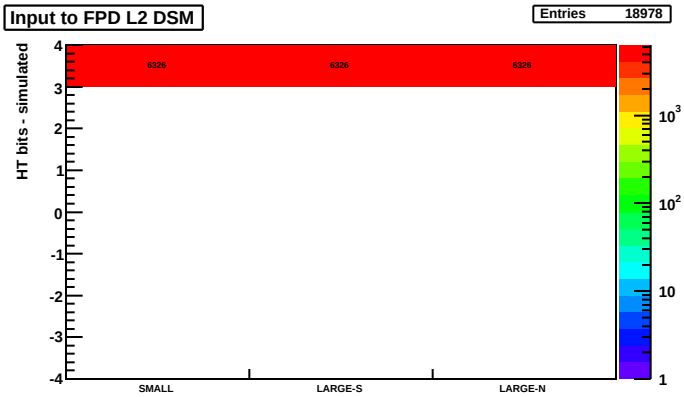

Input to FPD L2 DSM
Entries 75912
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

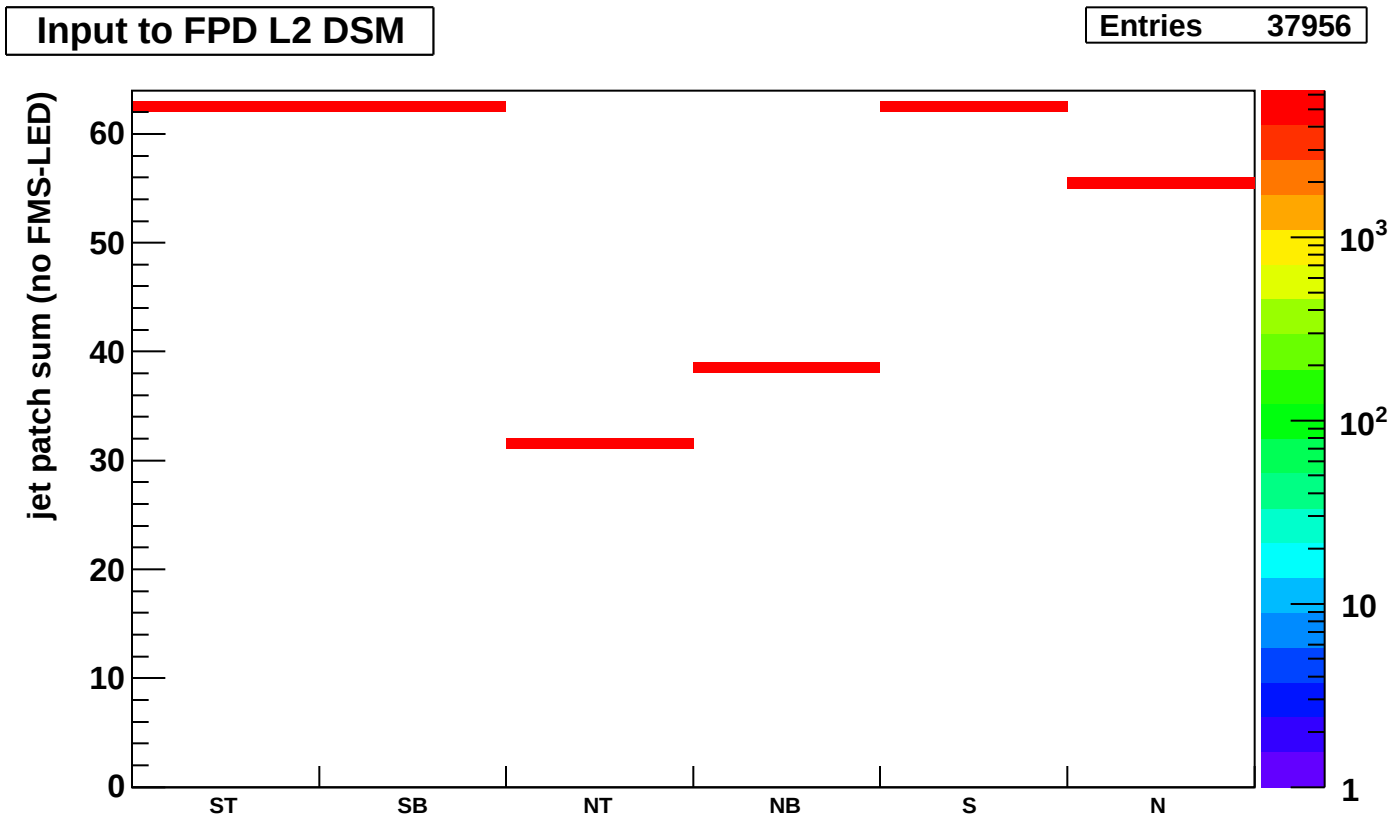

Input to FPD L2 DSM
Entries 69586
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

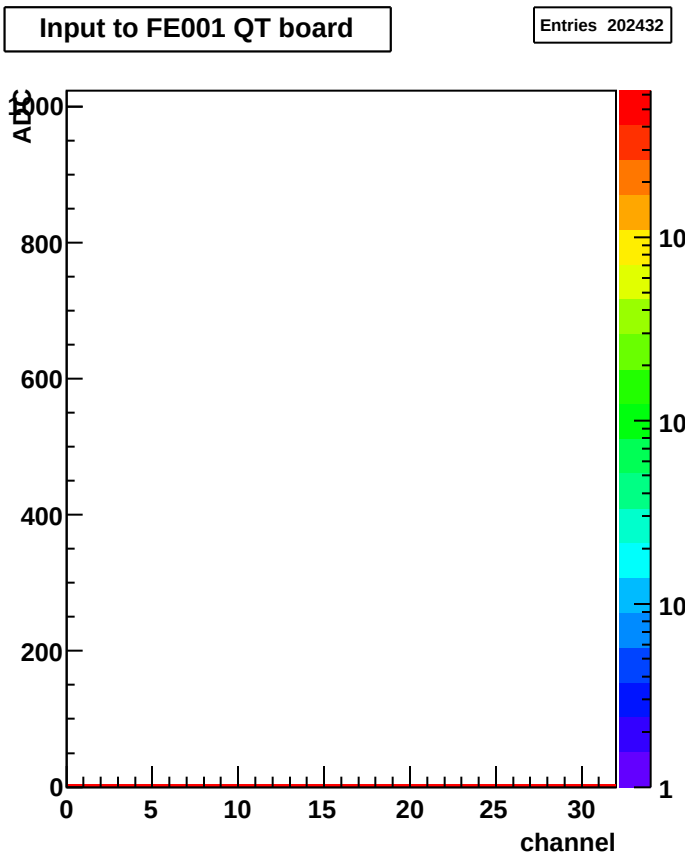

Input to FPD L2 DSM
Entries 18978
CL bits
6326
6326
6326
SMALL
LARGE-S
LARGE-N

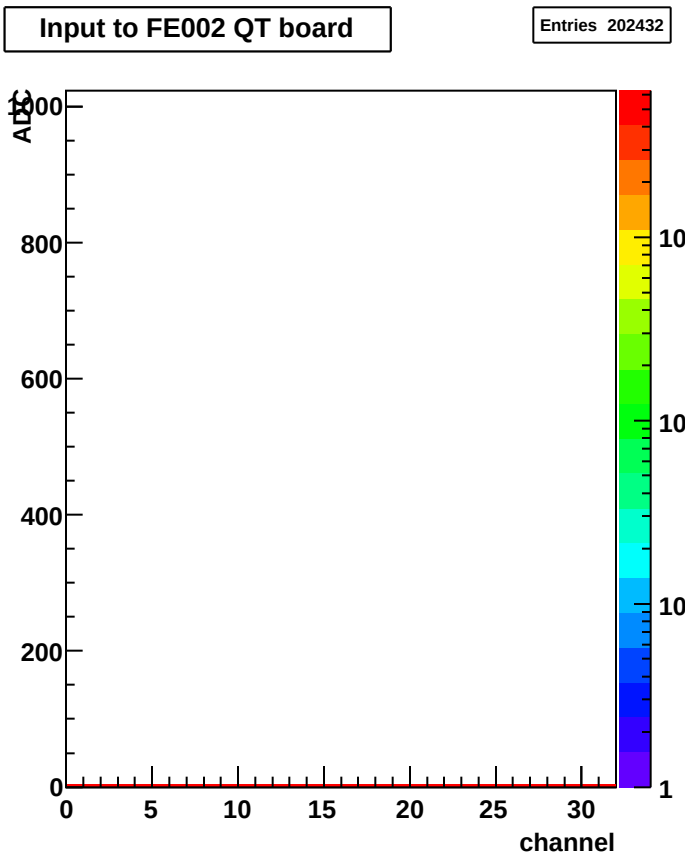

Input to FPD L2 DSM
Entries 18978
CL bits - simulated
6326
6326
6326
SMALL
LARGE-S
LARGE-N

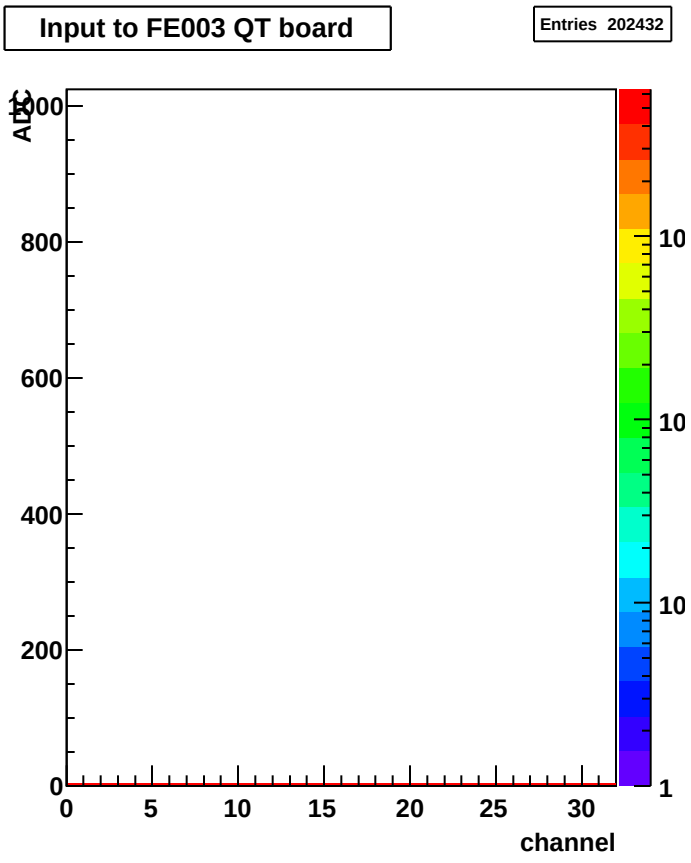

Input to FPD L2 DSM
Entries 18978
HT bits
6326
6326
6326
SMALL
LARGE-S
LARGE-N

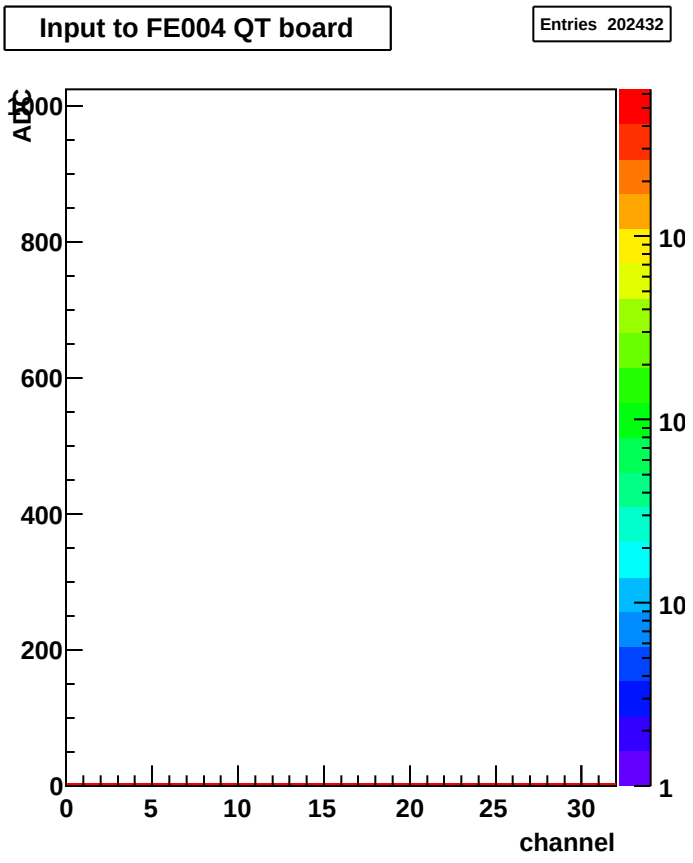

Input to FPD L2 DSM
Entries 18978
HT bits - simulated
6326
6326
6326
SMALL
LARGE-S
LARGE-N

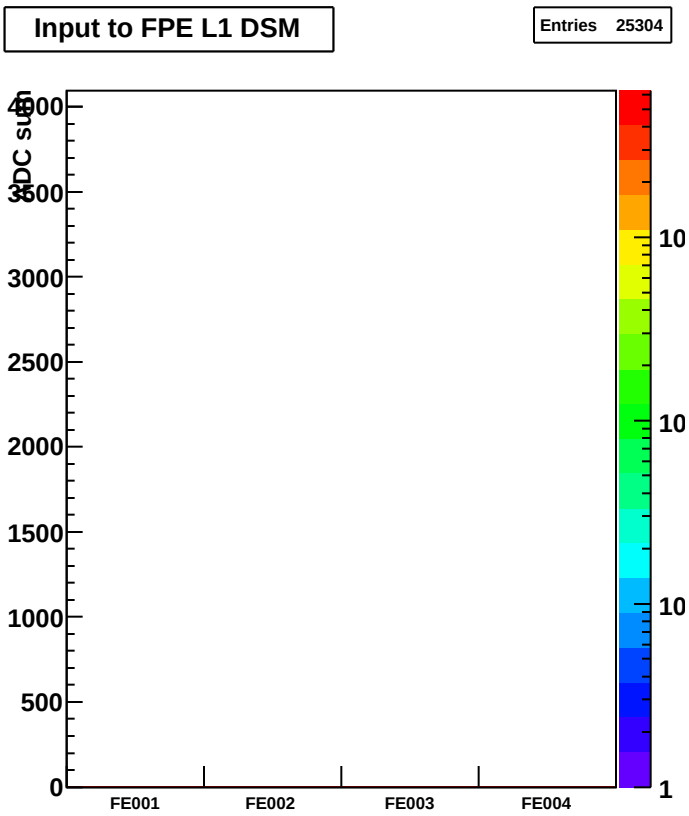

Input to FPD L2 DSM
Entries 37956
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

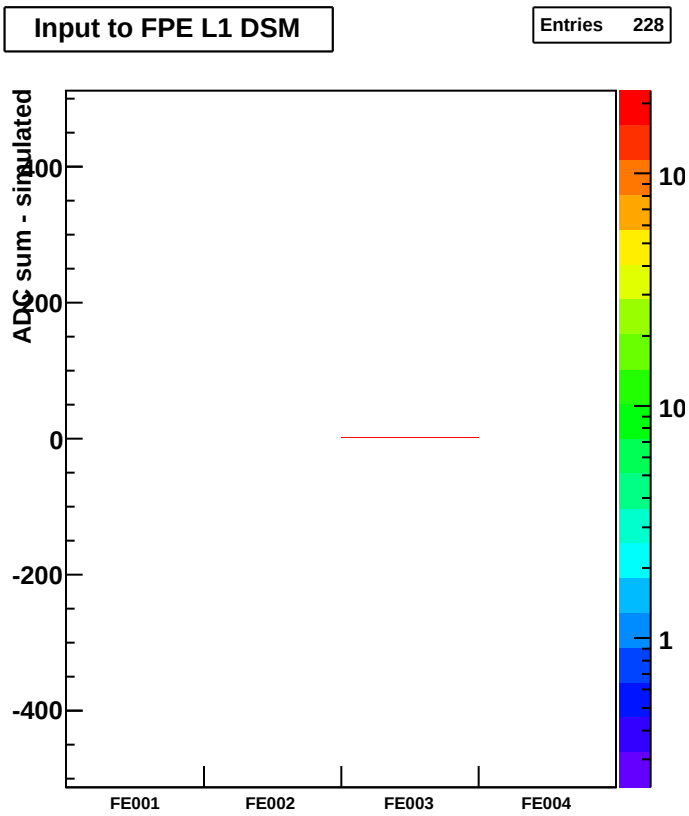

Input to FE001 QT board
Entries 202432
ADC
channel

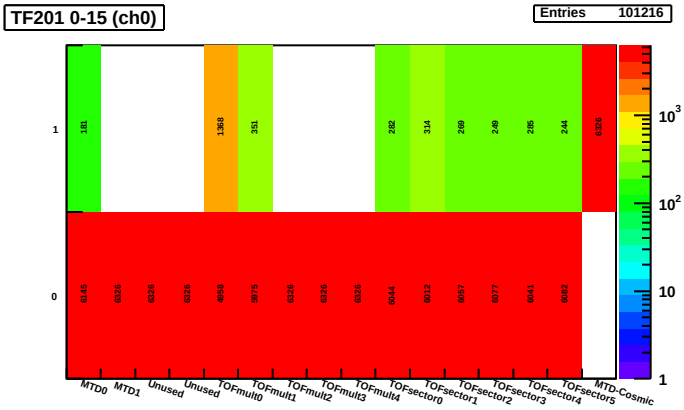

Input to FE002 QT board
Entries 202432
ADC
channel

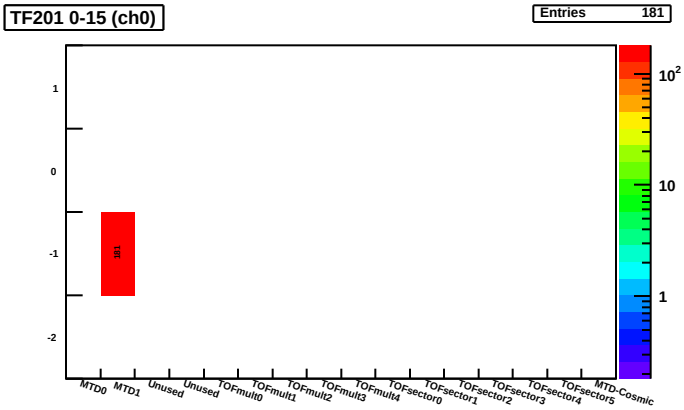

Input to FE003 QT board
Entries 202432
ADC
channel

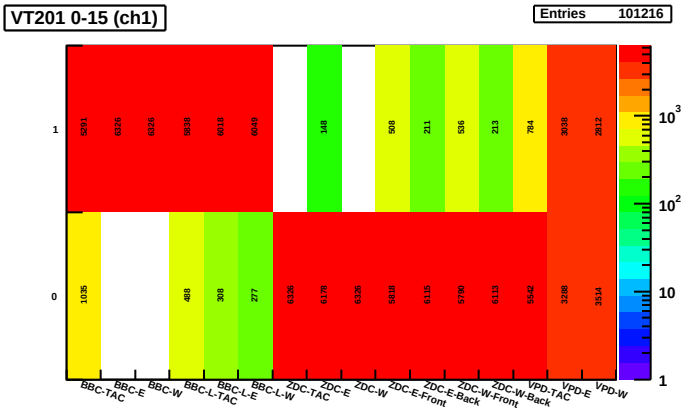

Input to FE004 QT board
Entries 202432
ADC
channel

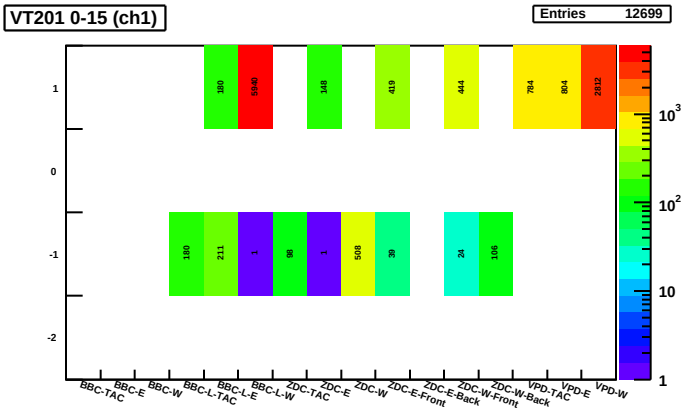

Input to FPE L1 DSM
Entries 25304
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1

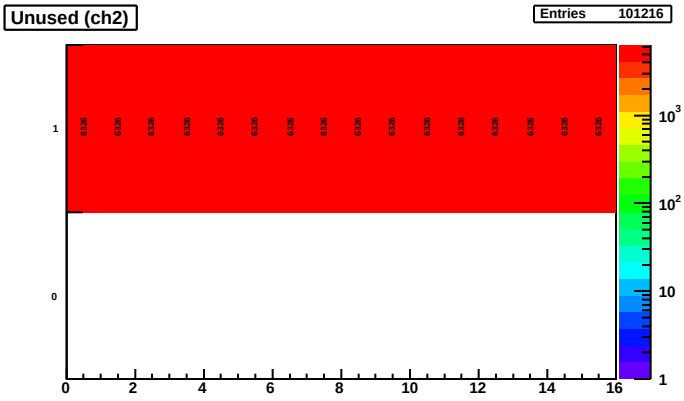

Input to FPE L1 DSM
Entries 228
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
1

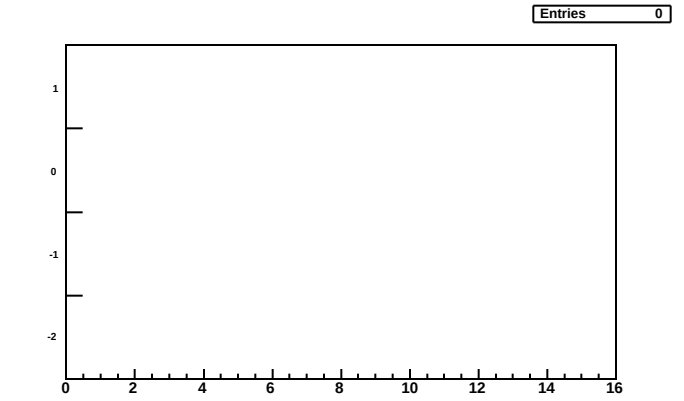

TF201 0-15 (ch0)
Entries 101216
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

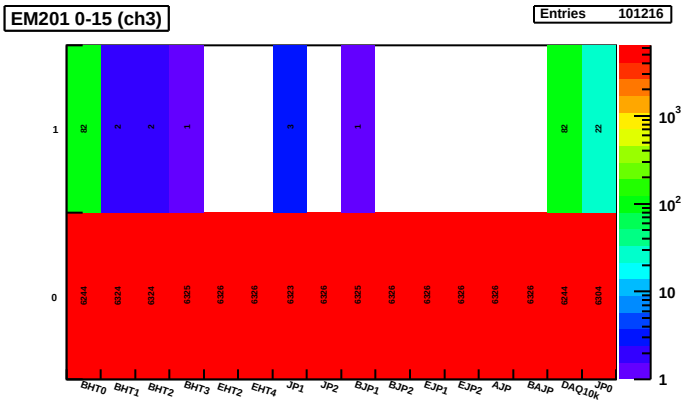

TF201 0-15 (ch0)
Entries 181
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

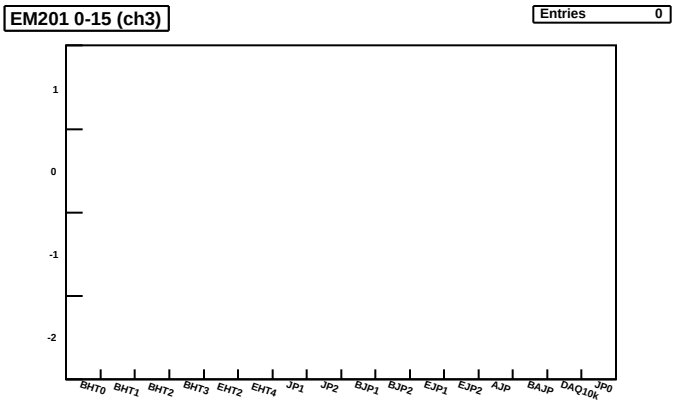

VT201 0-15 (ch1)
Entries 101216
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 12699
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

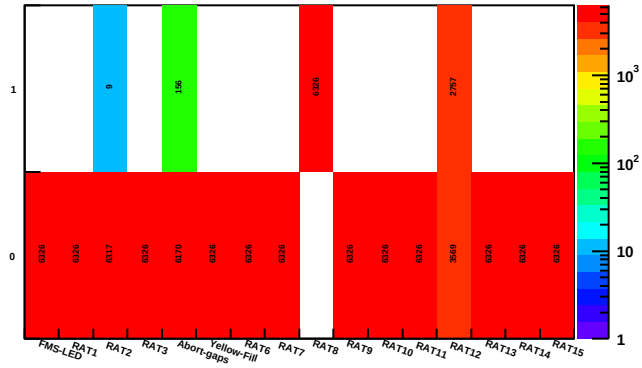

Unused (ch2)
Entries 101216

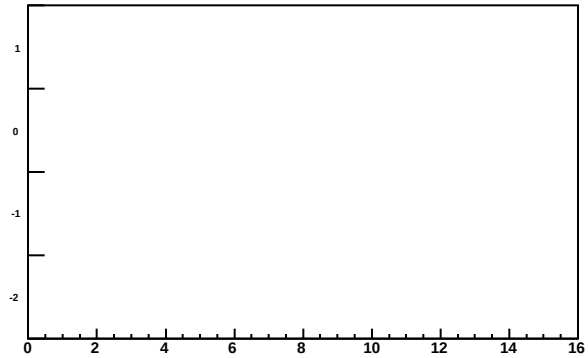

Entries 0


EM201 0-15 (ch3)
Entries 101216
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

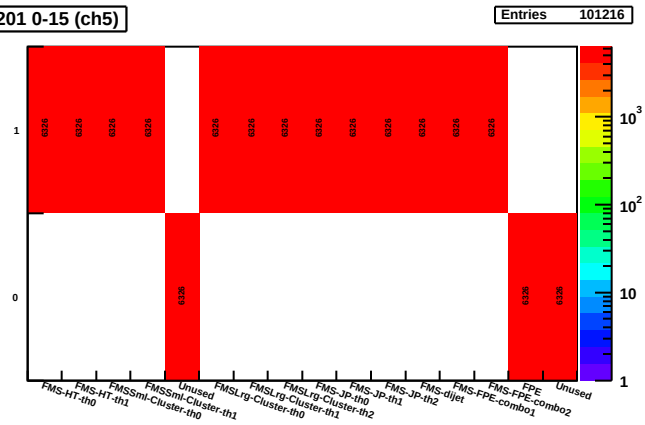

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

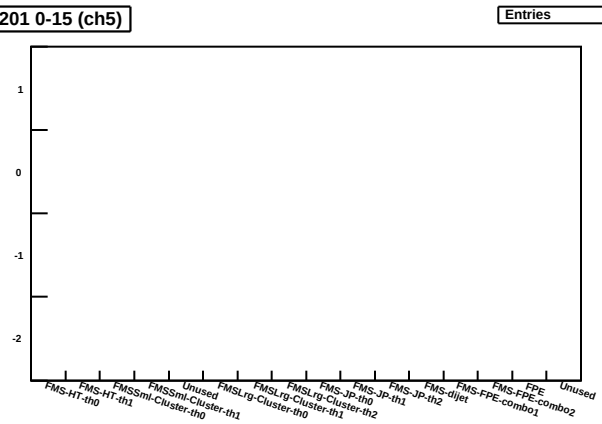




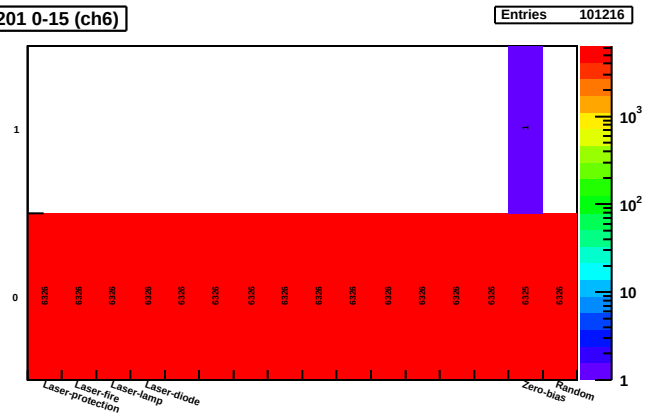
FP201 0-15 (ch5)

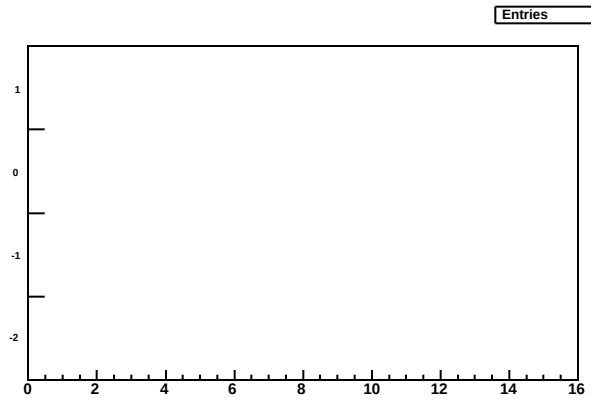
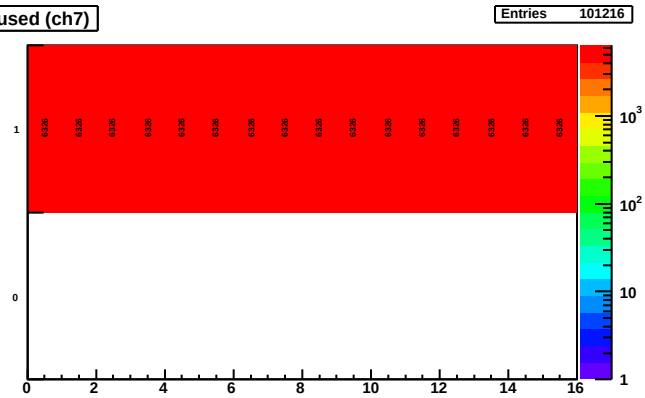
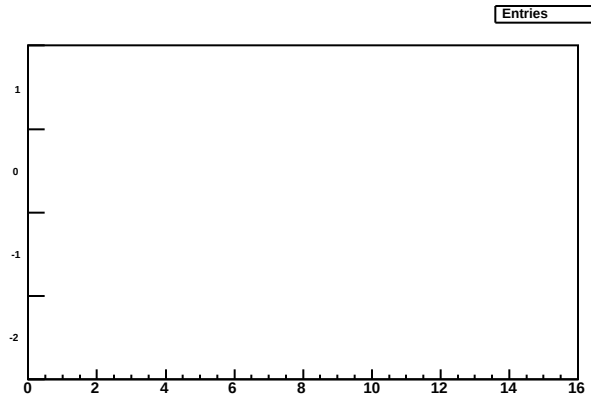


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)