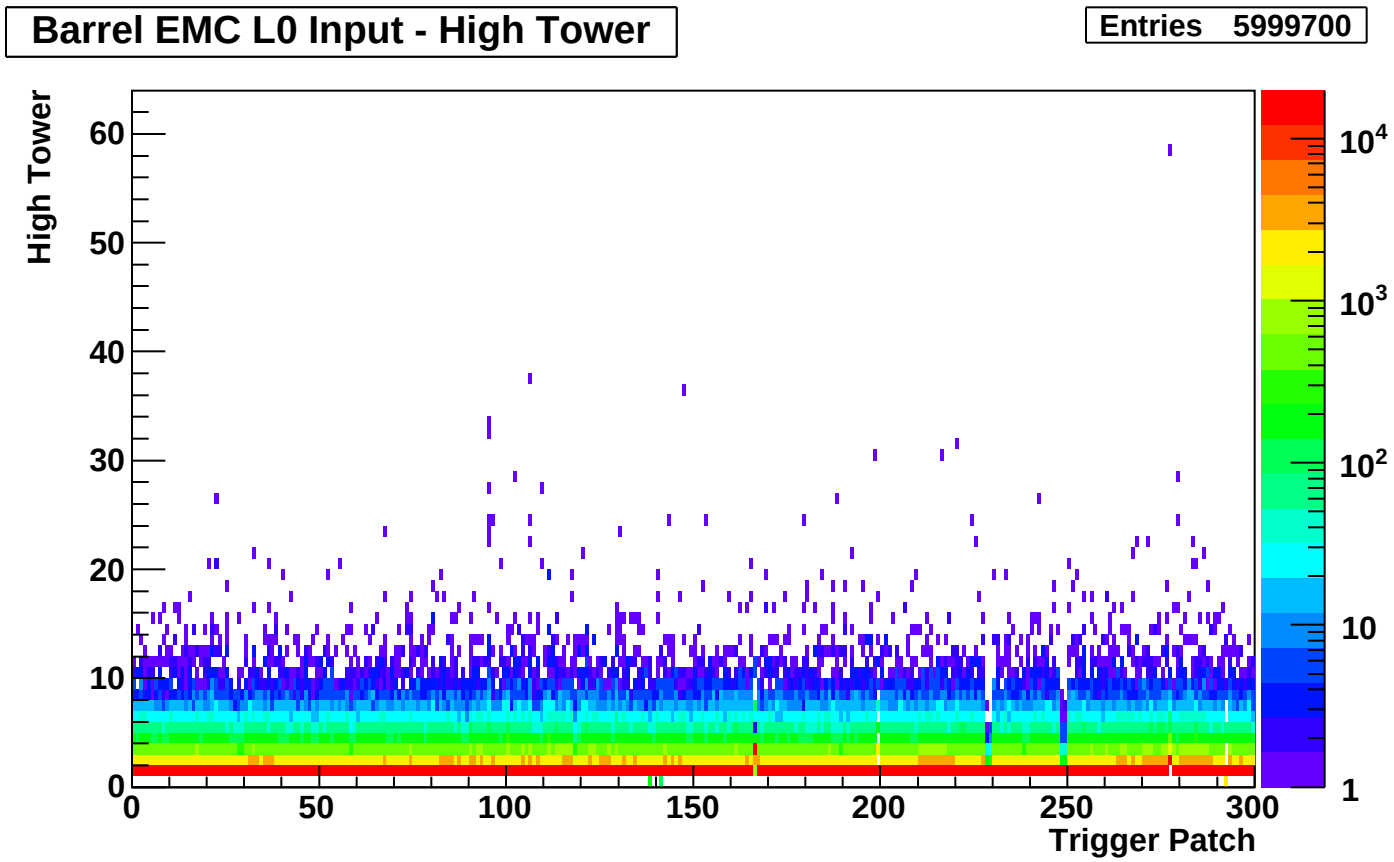
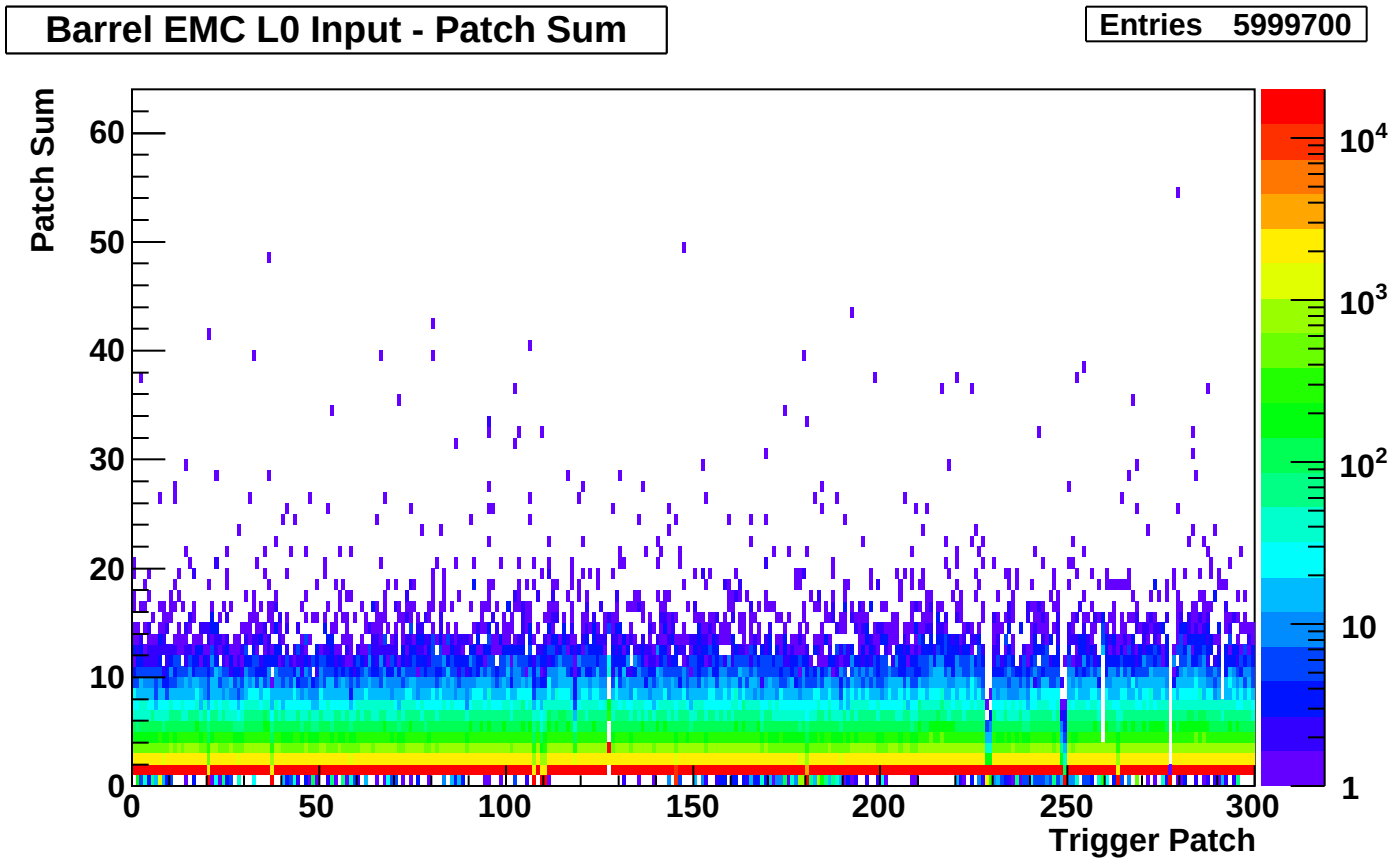
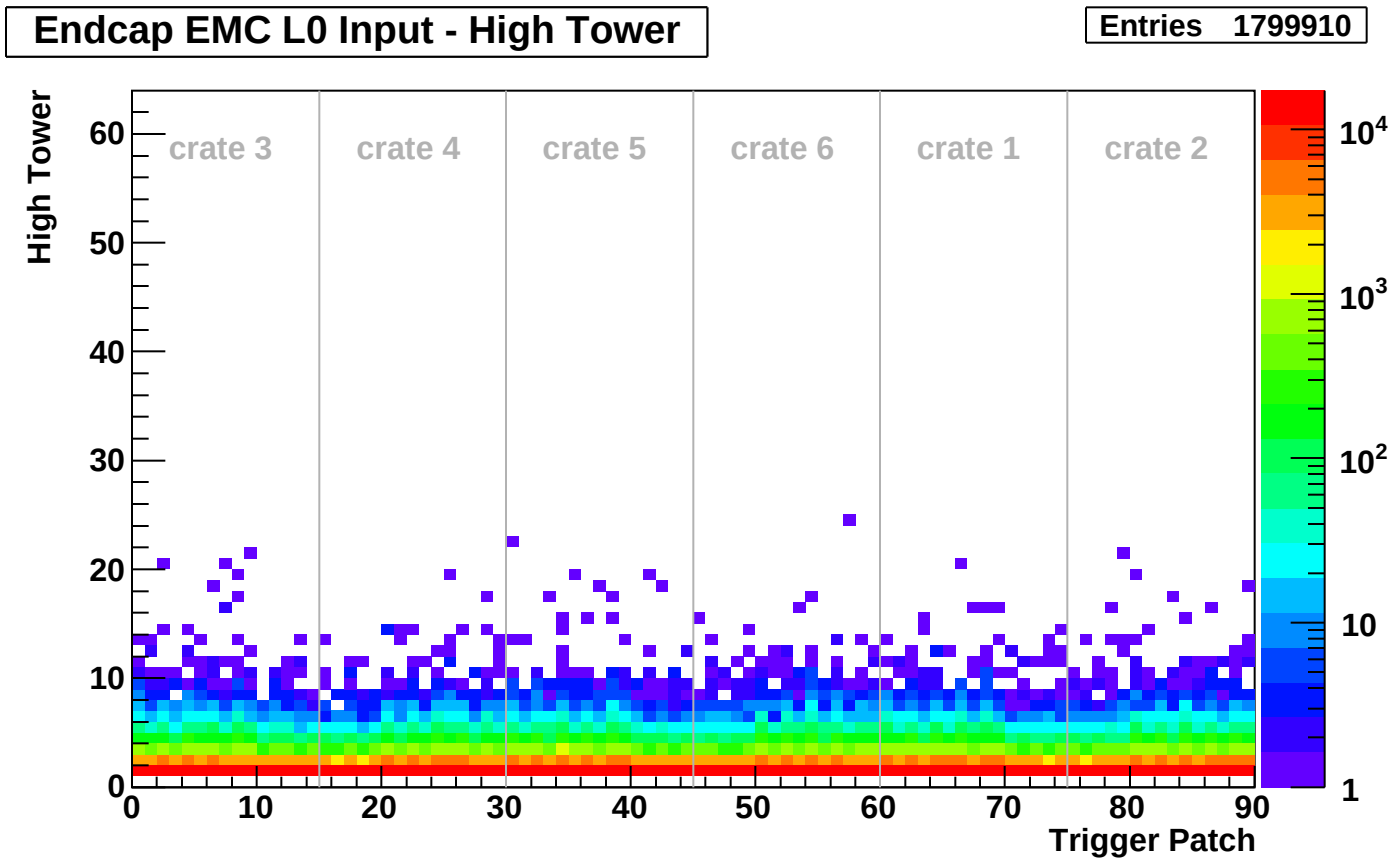
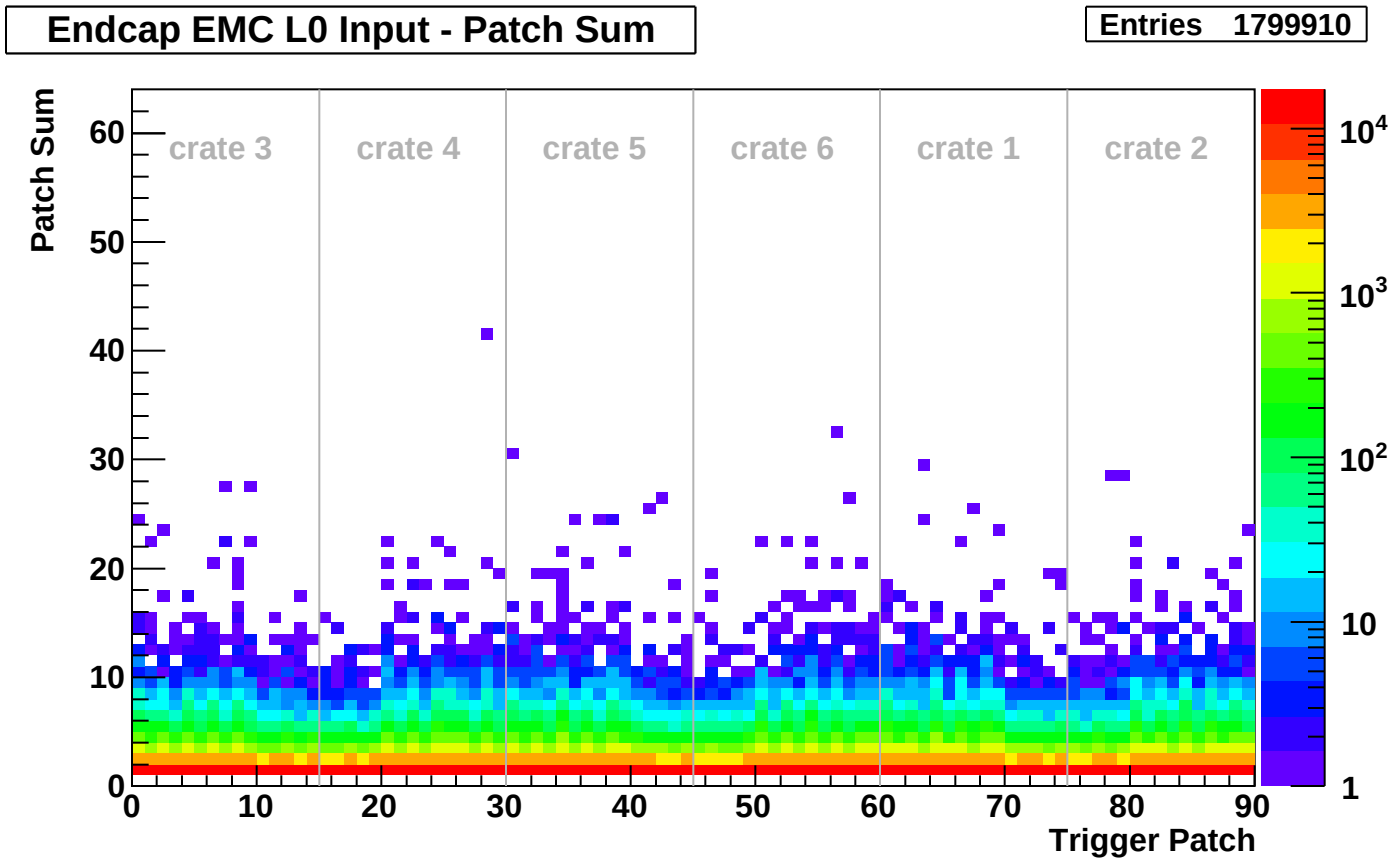
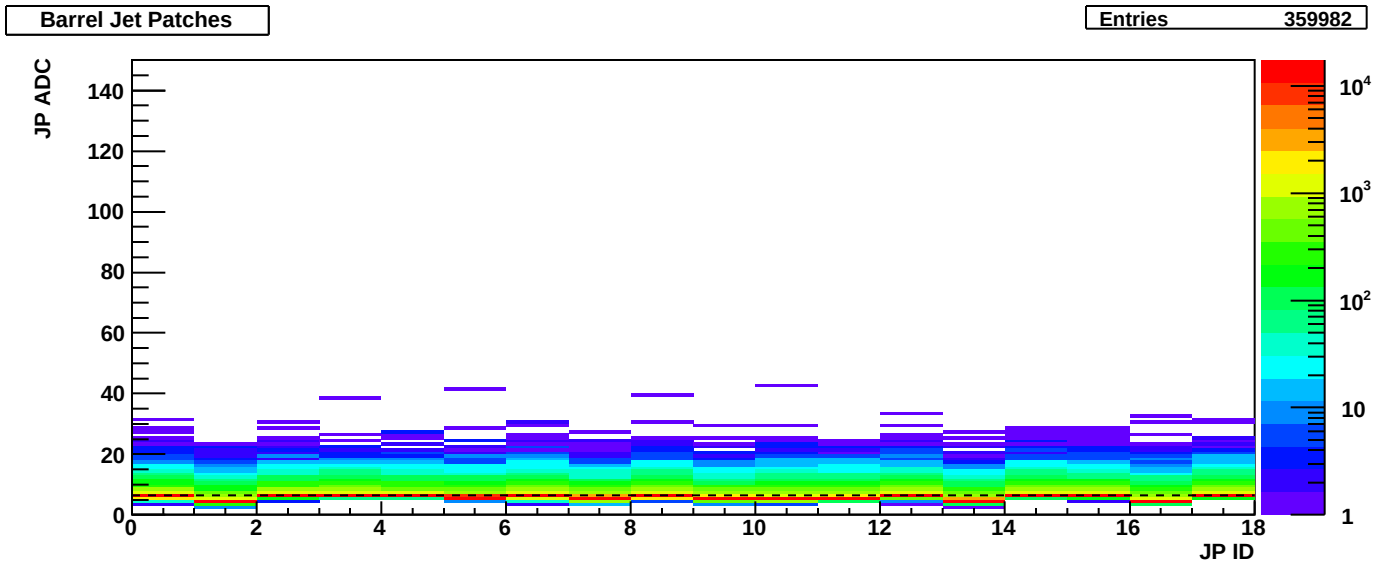
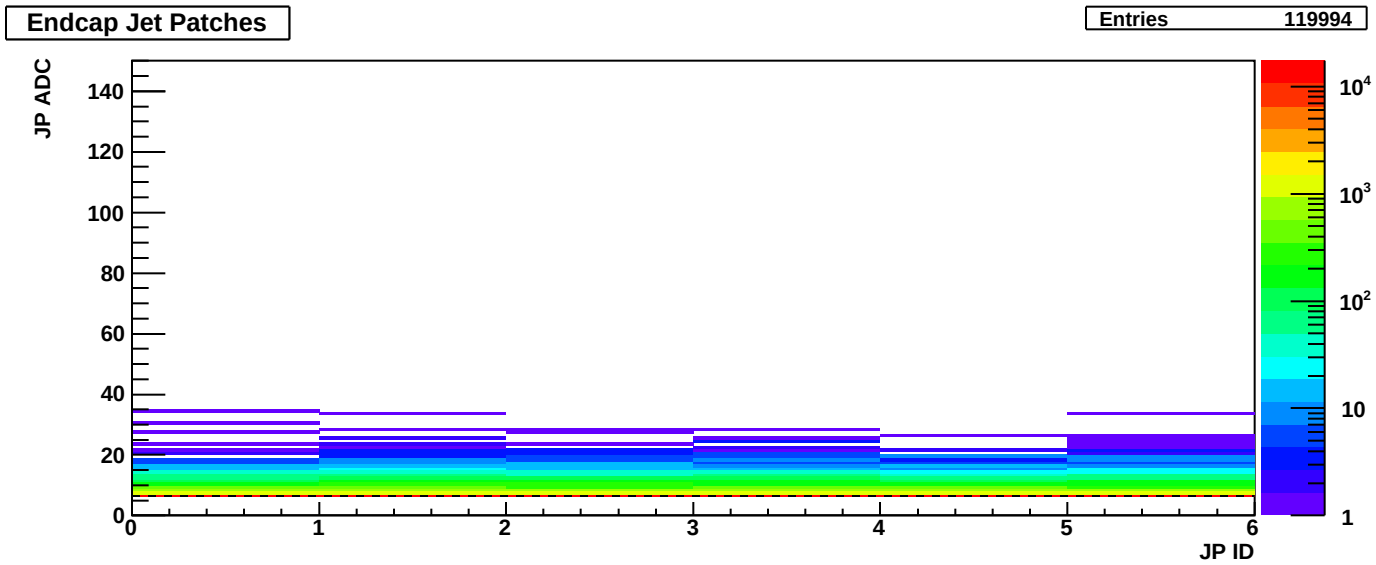

Barrel EMC L0 Input - High Tower
Entries 5999700
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

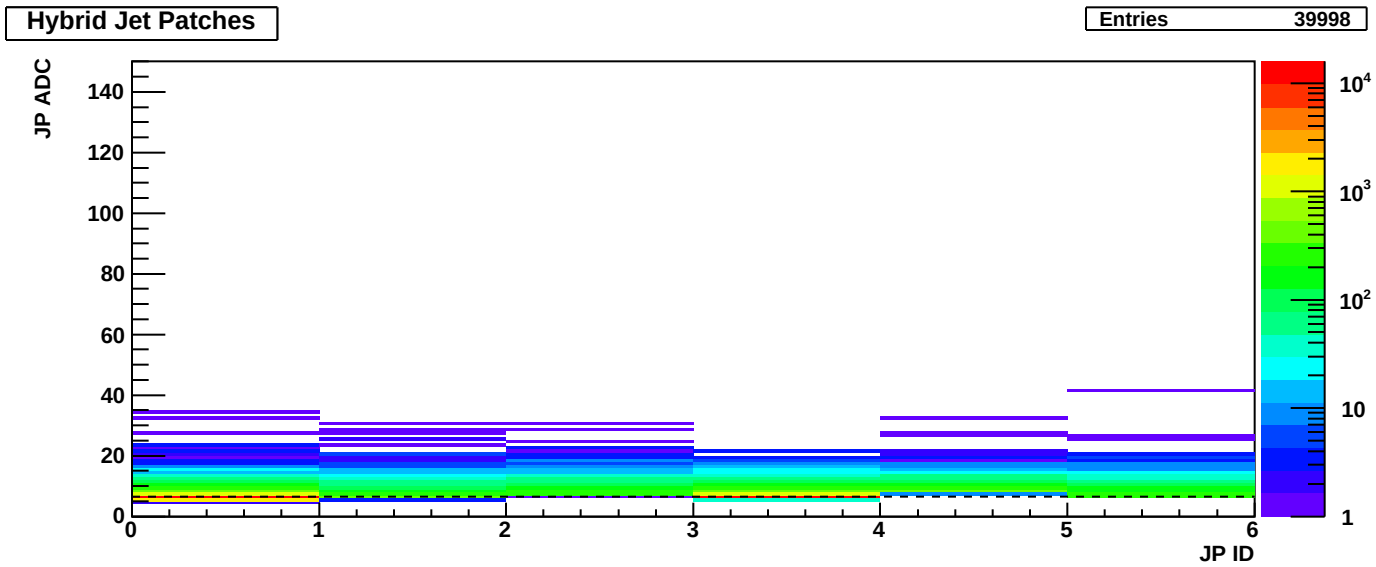

Barrel EMC L0 Input - Patch Sum
Entries 5999700
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

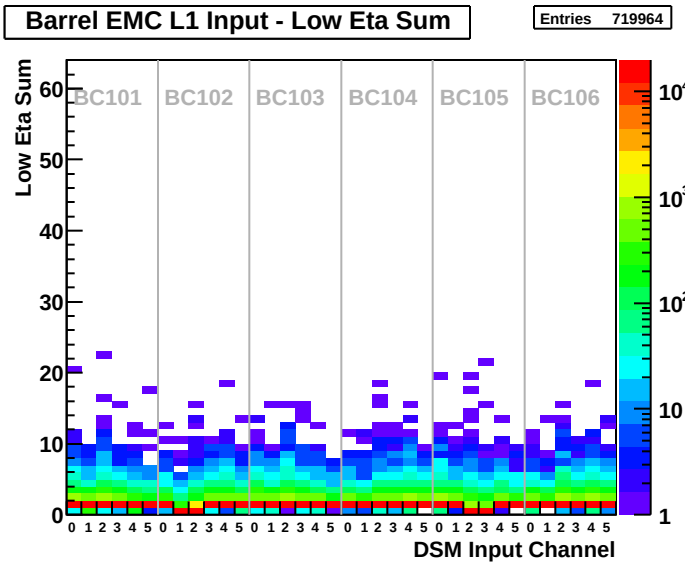

Endcap EMC L0 Input - High Tower
Entries 1799910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

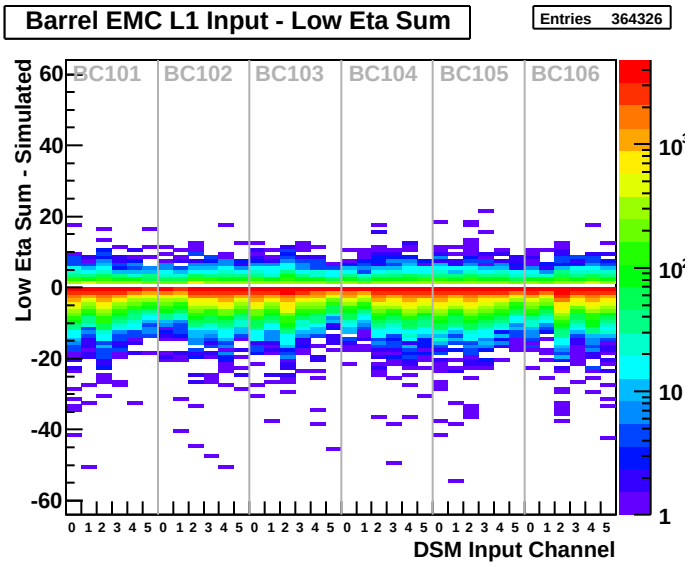

Endcap EMC L0 Input - Patch Sum
Entries 1799910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

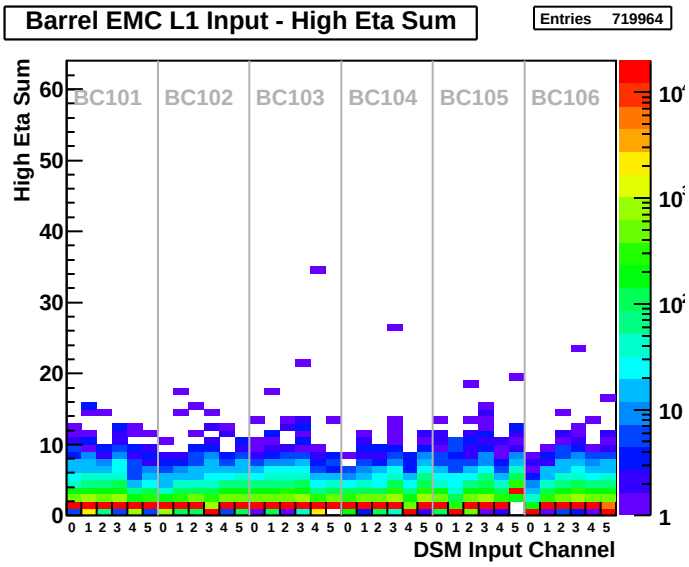

Barrel Jet Patches
Entries 359982
JP ADC
JP ID

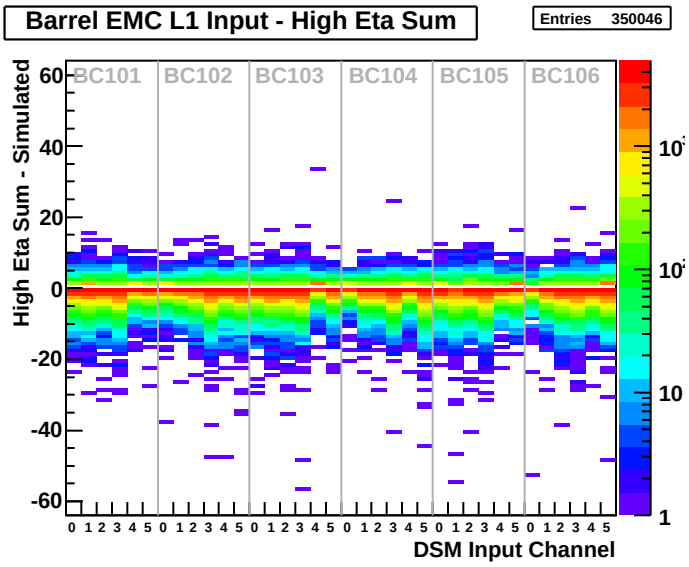

Endcap Jet Patches
Entries 119994
JP ADC
JP ID

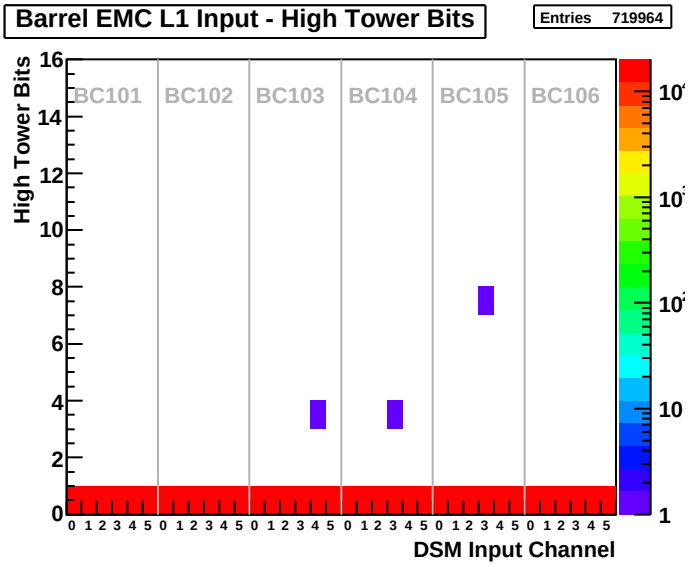

Hybrid Jet Patches
Entries 39998
JP ADC
JP ID

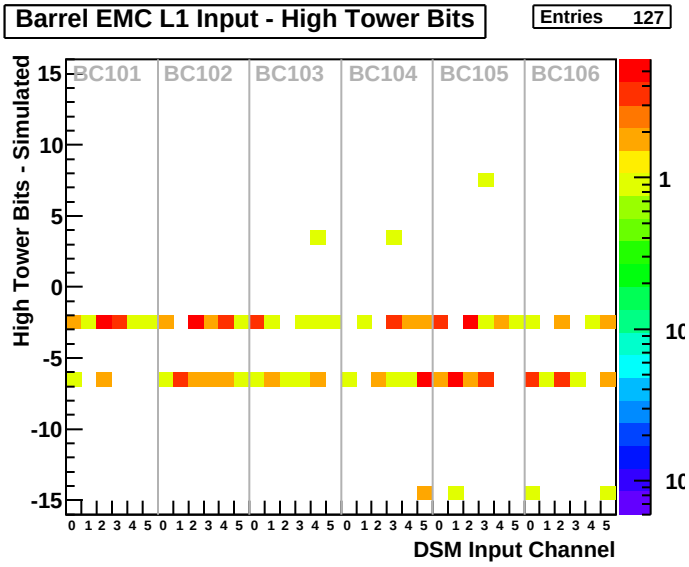

Barrel EMC L1 Input - Low Eta Sum
Entries 719964
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

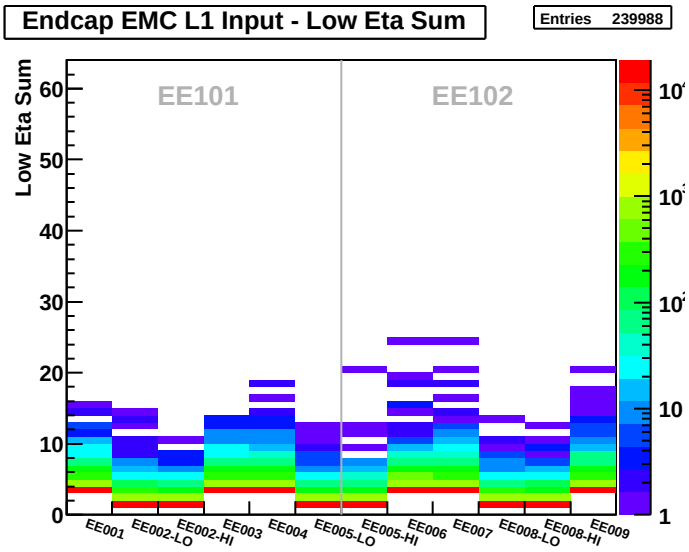

Barrel EMC L1 Input - Low Eta Sum
Entries 364326
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

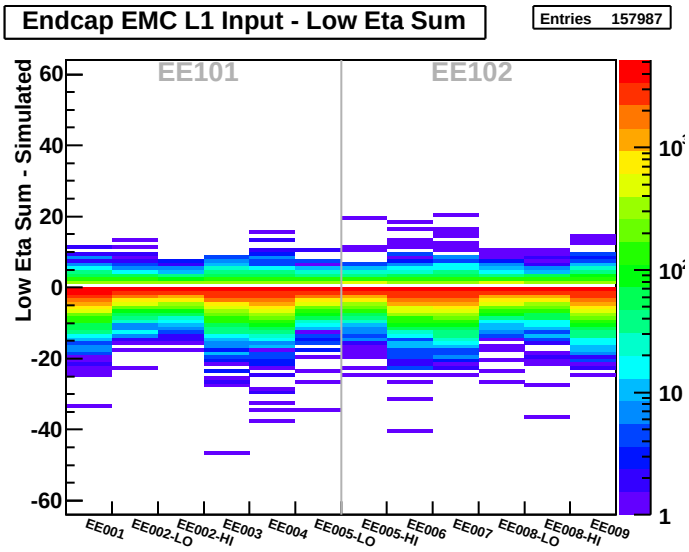

Barrel EMC L1 Input - High Eta Sum
Entries 719964
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

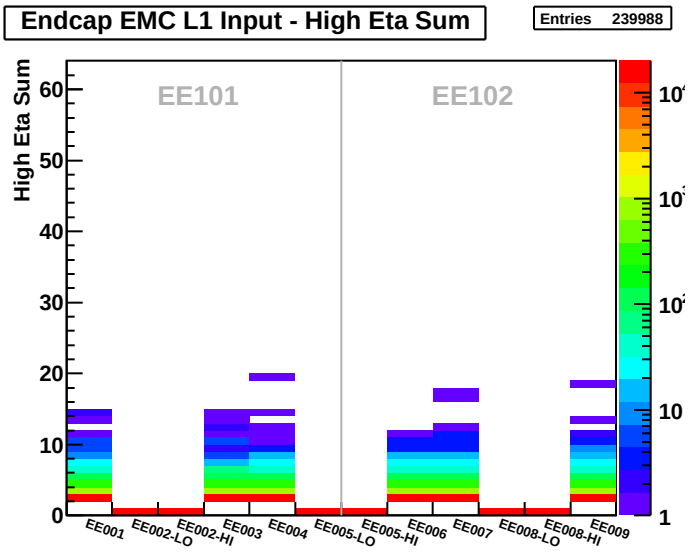

Barrel EMC L1 Input - High Eta Sum
Entries 350046
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

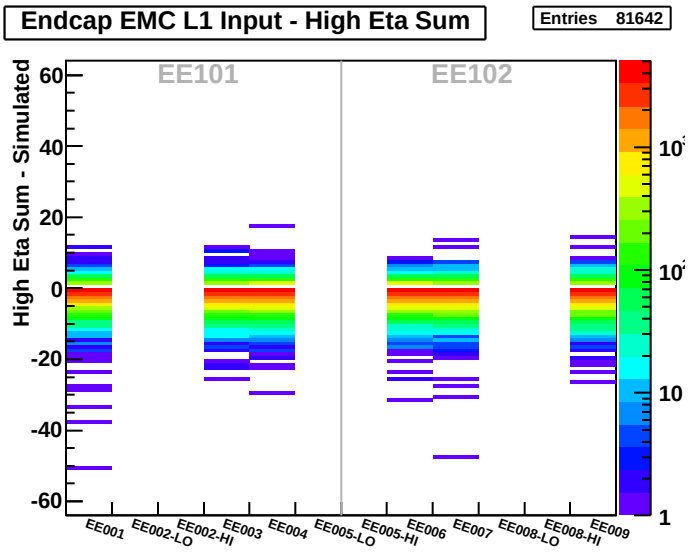

Barrel EMC L1 Input - High Tower Bits
Entries 719964
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

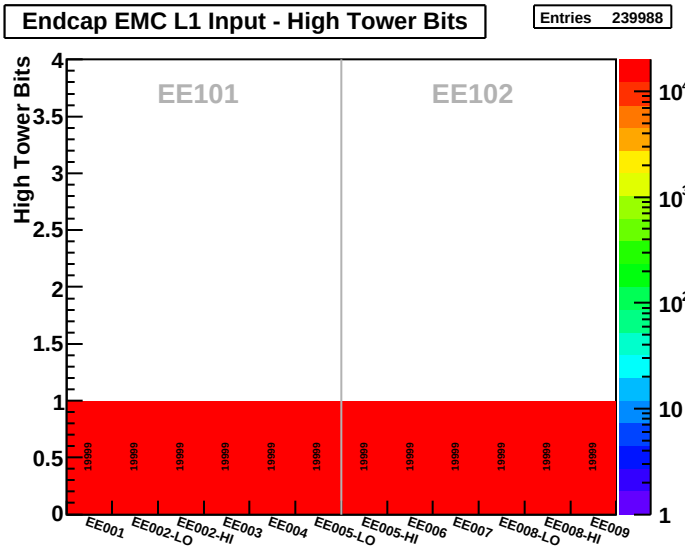

Barrel EMC L1 Input - High Tower Bits
Entries 127
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

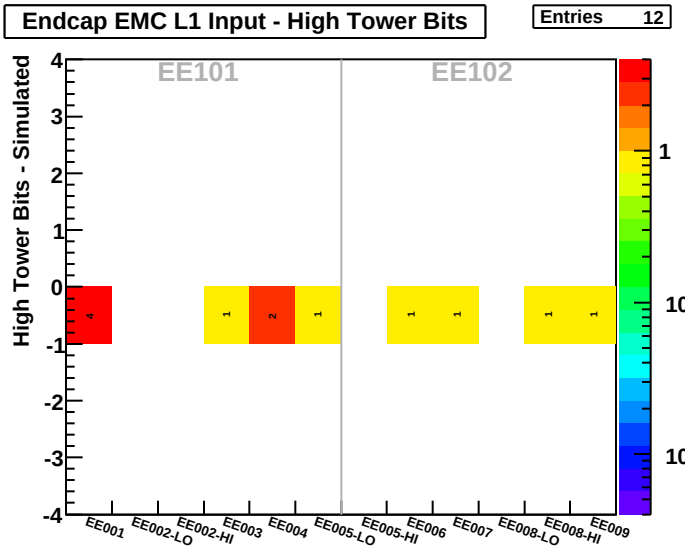

Endcap EMC L1 Input - Low Eta Sum
Entries 239988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

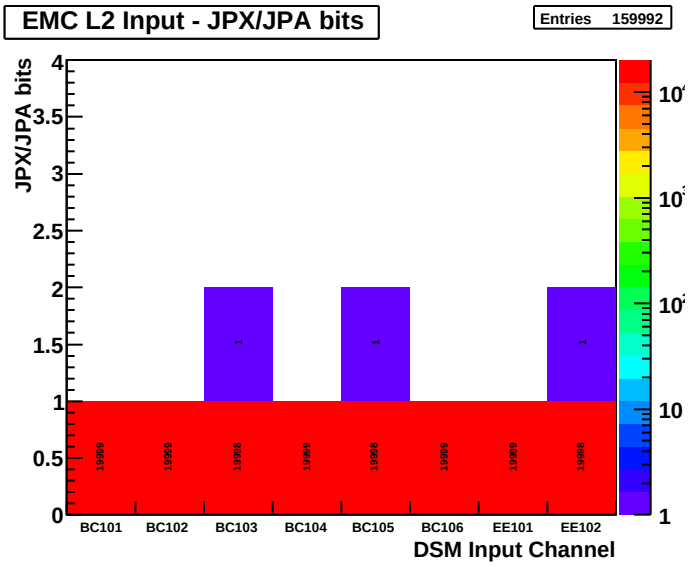

Endcap EMC L1 Input - Low Eta Sum
Entries 157987
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

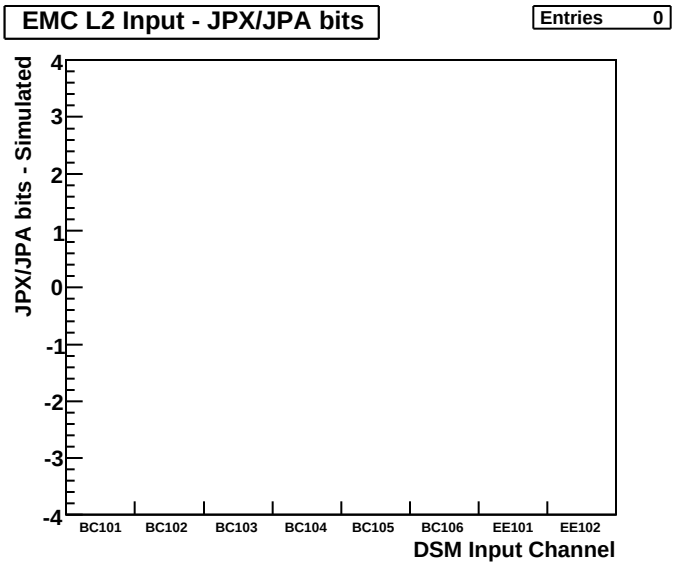

Endcap EMC L1 Input - High Eta Sum
Entries 239988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

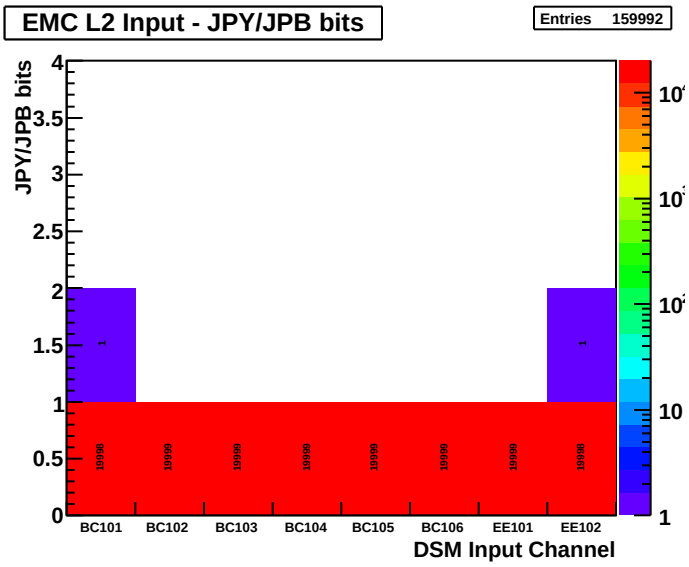

Endcap EMC L1 Input - High Eta Sum
Entries 81642
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

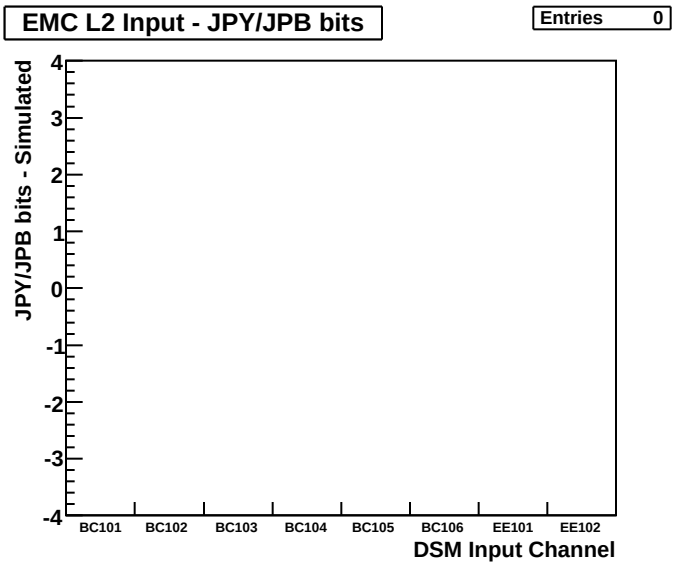

Endcap EMC L1 Input - High Tower Bits
Entries 239988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

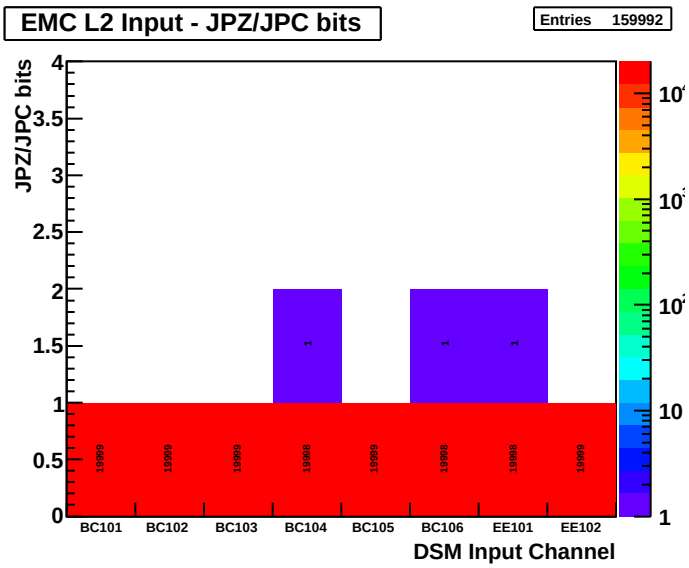

Endcap EMC L1 Input - High Tower Bits
Entries 12
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

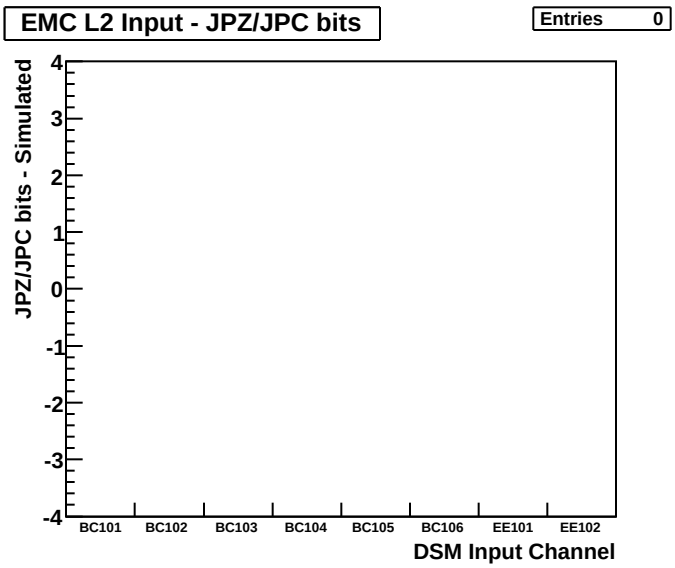

EMC L2 Input - JPX/JPA bits
Entries 159992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

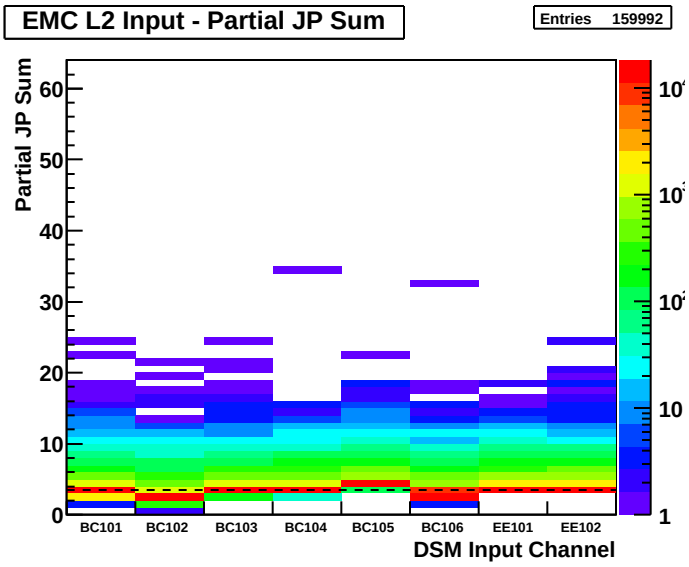

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

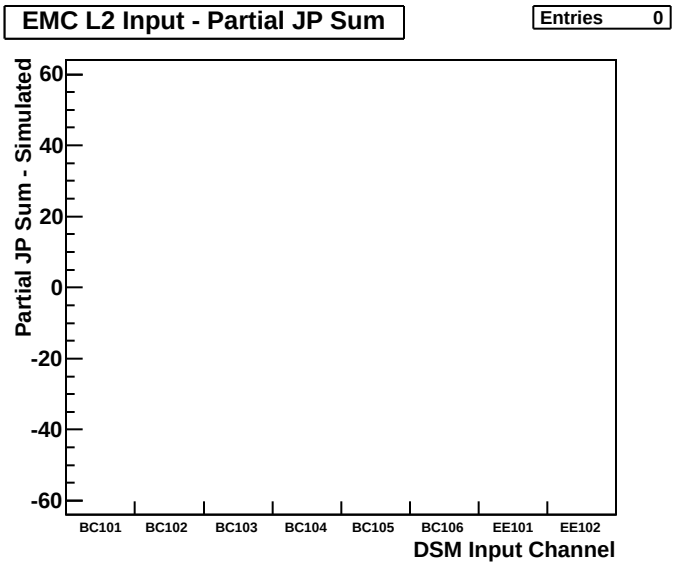

EMC L2 Input - JPY/JPB bits
Entries 159992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

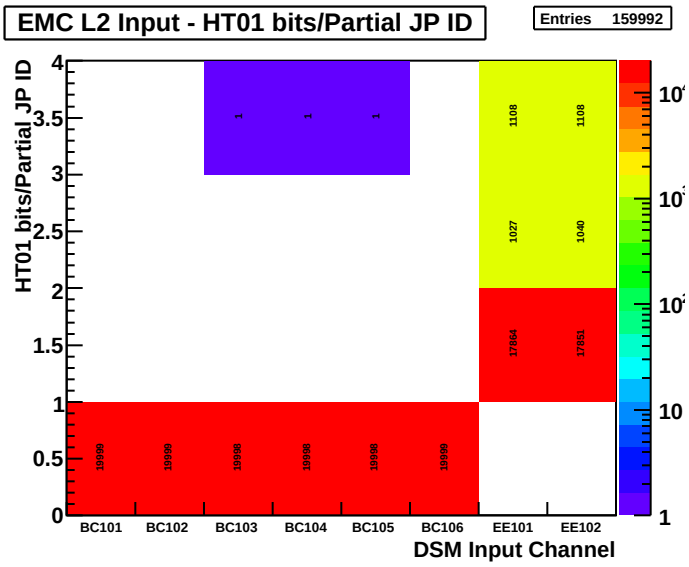

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

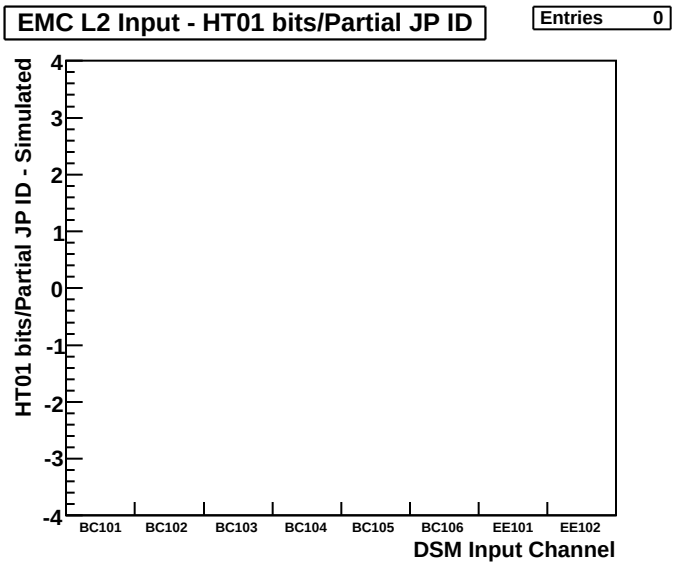

EMC L2 Input - JPZ/JPC bits
Entries 159992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

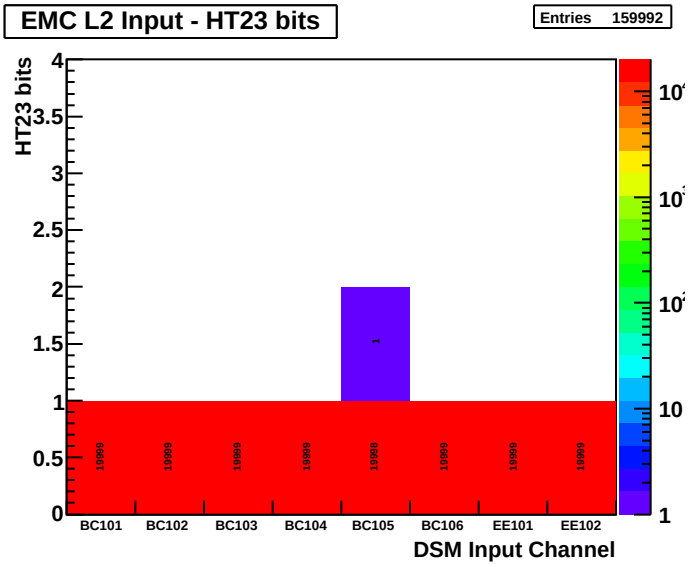

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

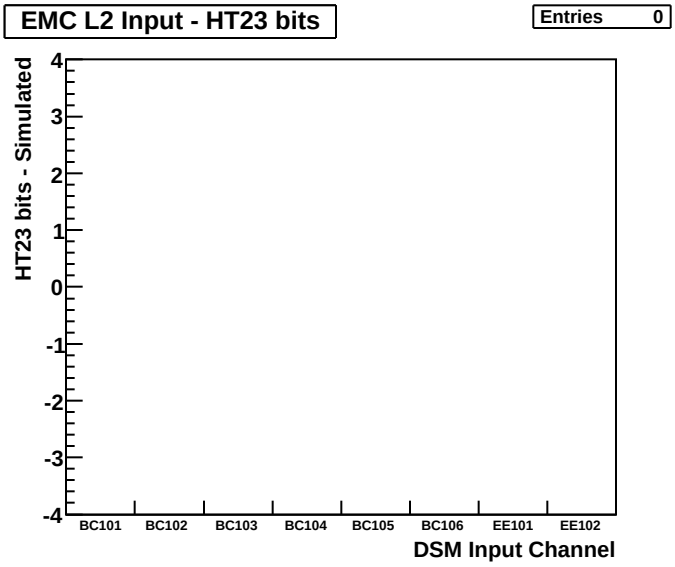

EMC L2 Input - Partial JP Sum
Entries 159992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

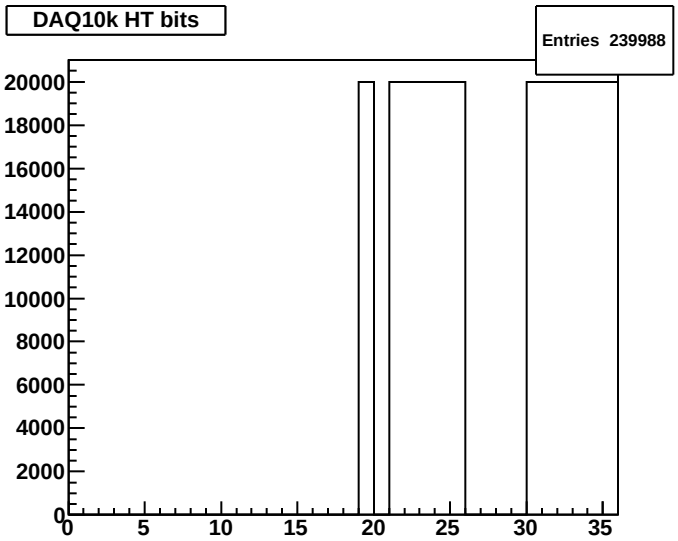

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

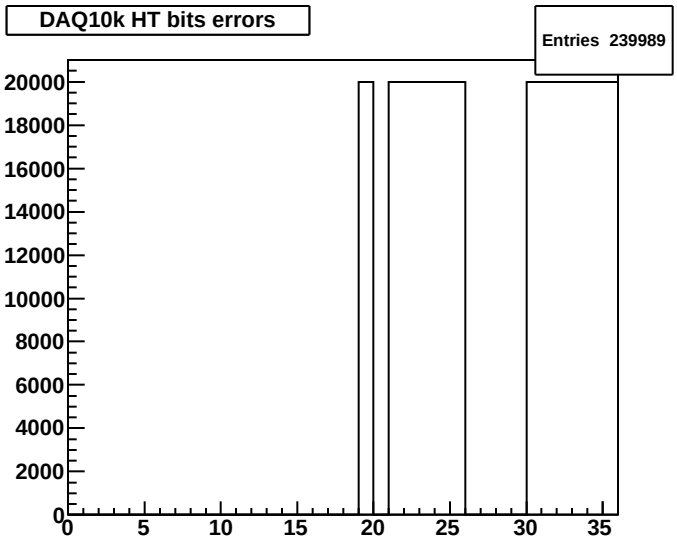

EMC L2 Input - HT01 bits/Partial JP ID
Entries 159992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

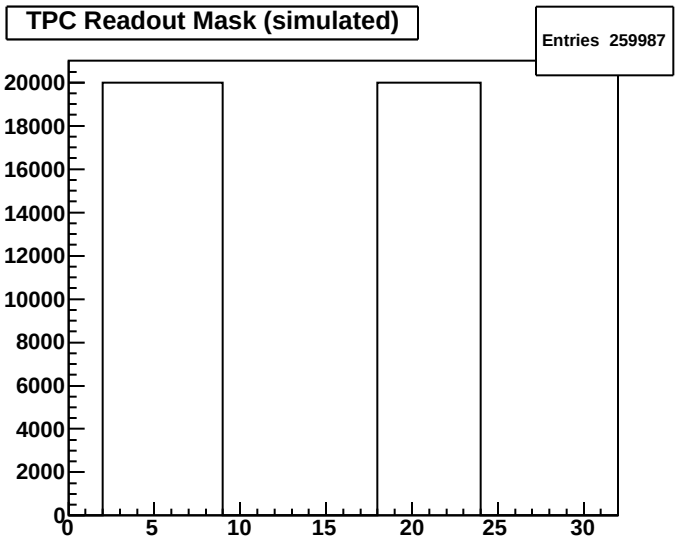

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

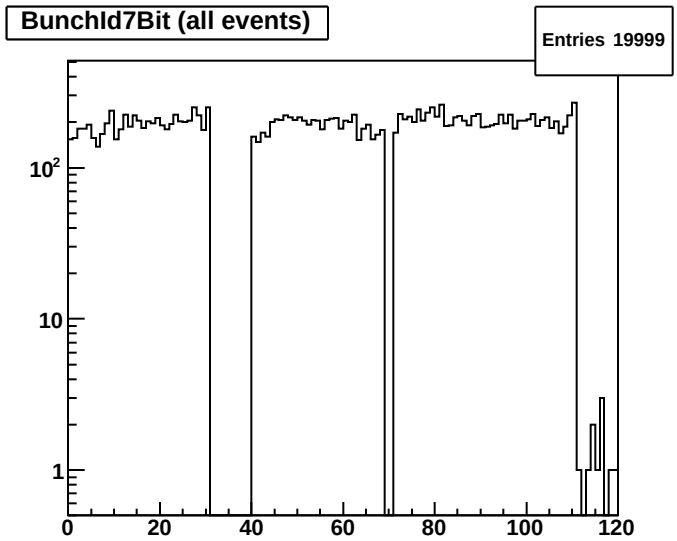

EMC L2 Input - HT23 bits
Entries 159992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

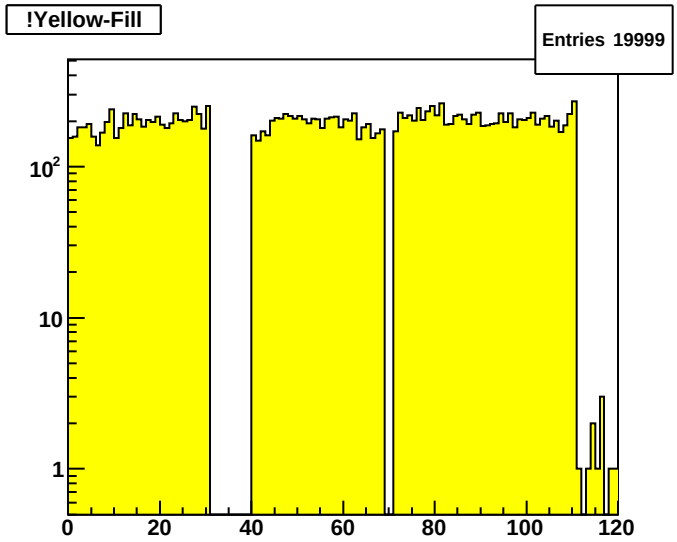

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

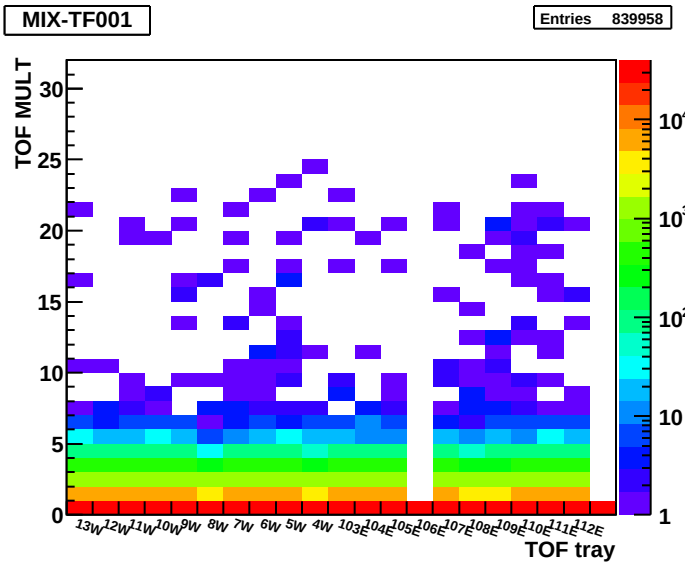

DAQ10k HT bits
Entries 239988
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

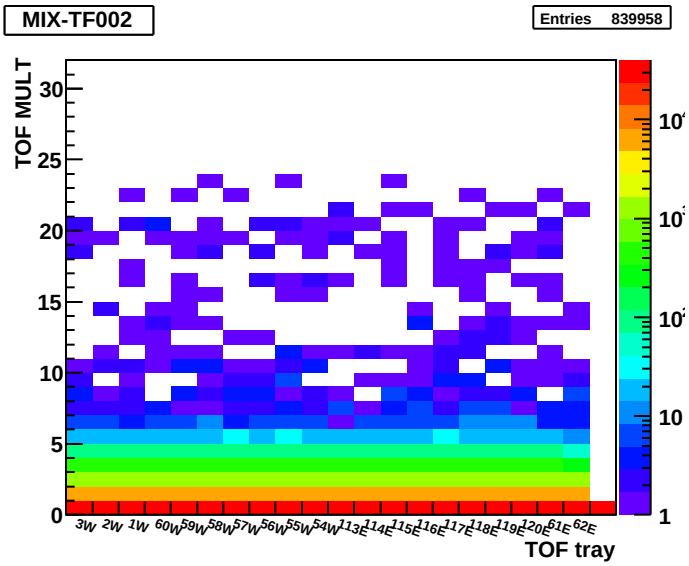

DAQ10k HT bits errors
Entries 239989
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

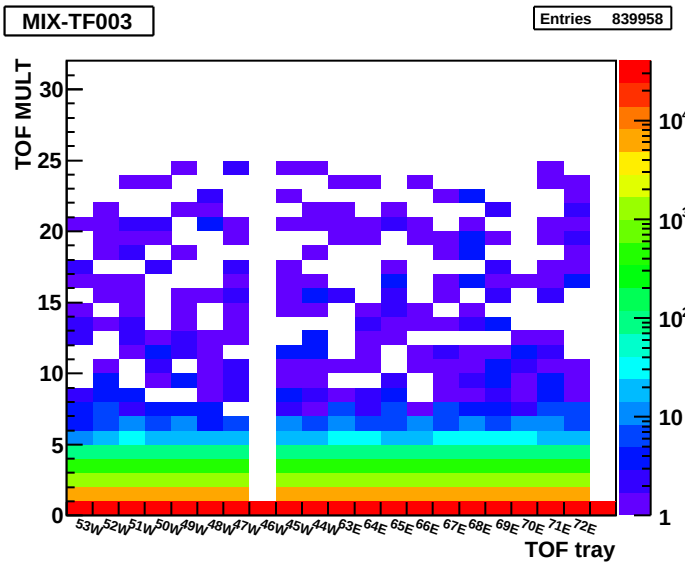

TPC Readout Mask (simulated)
Entries 259987
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

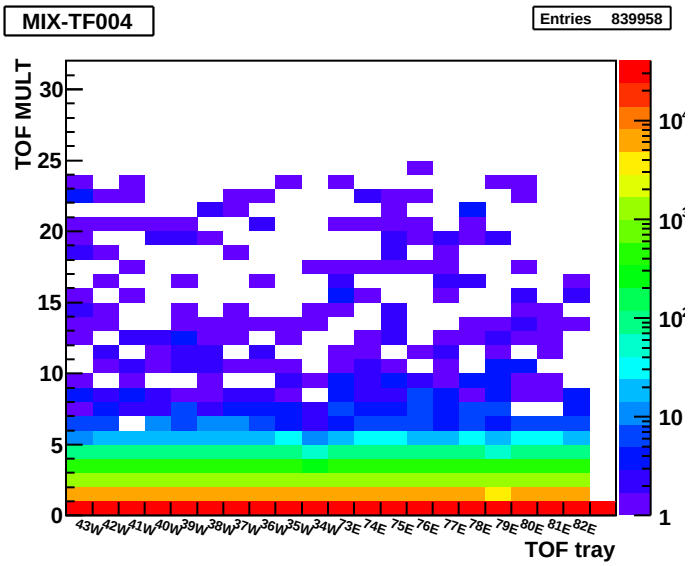

BunchId7Bit (all events)
Entries 19999
10^2
10
1
0 20 40 60 80 100 120

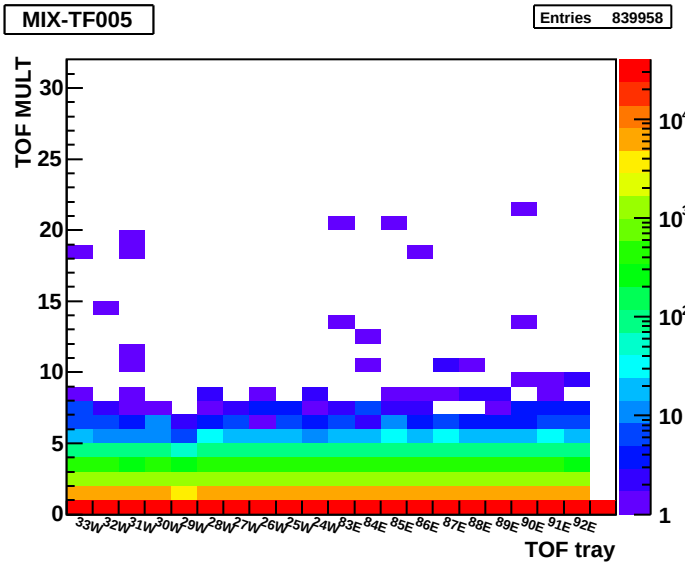

!Yellow-Fill
Entries 19999
10^2
10
1
0 20 40 60 80 100 120

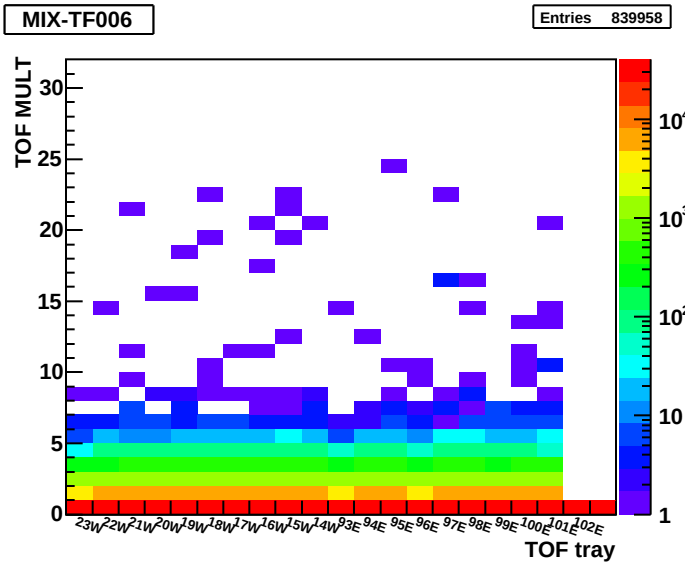

MIX-TF001
Entries 839958
TOF MULT
TOF tray

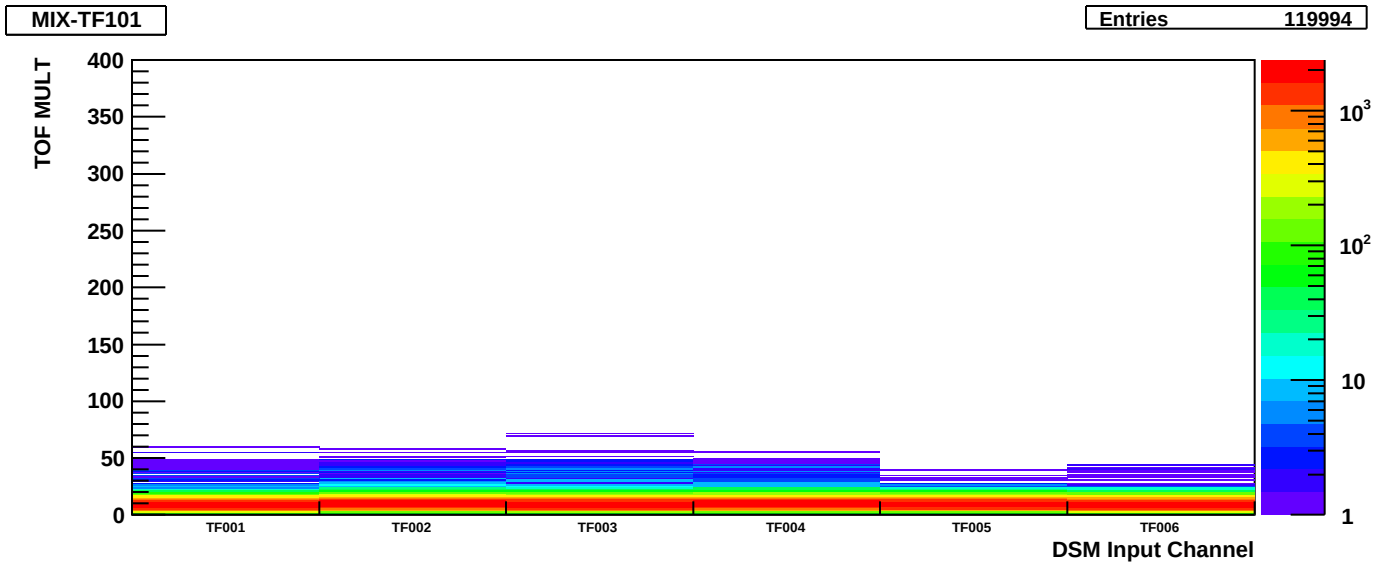

MIX-TF002
Entries 839958
TOF MULT
TOF tray

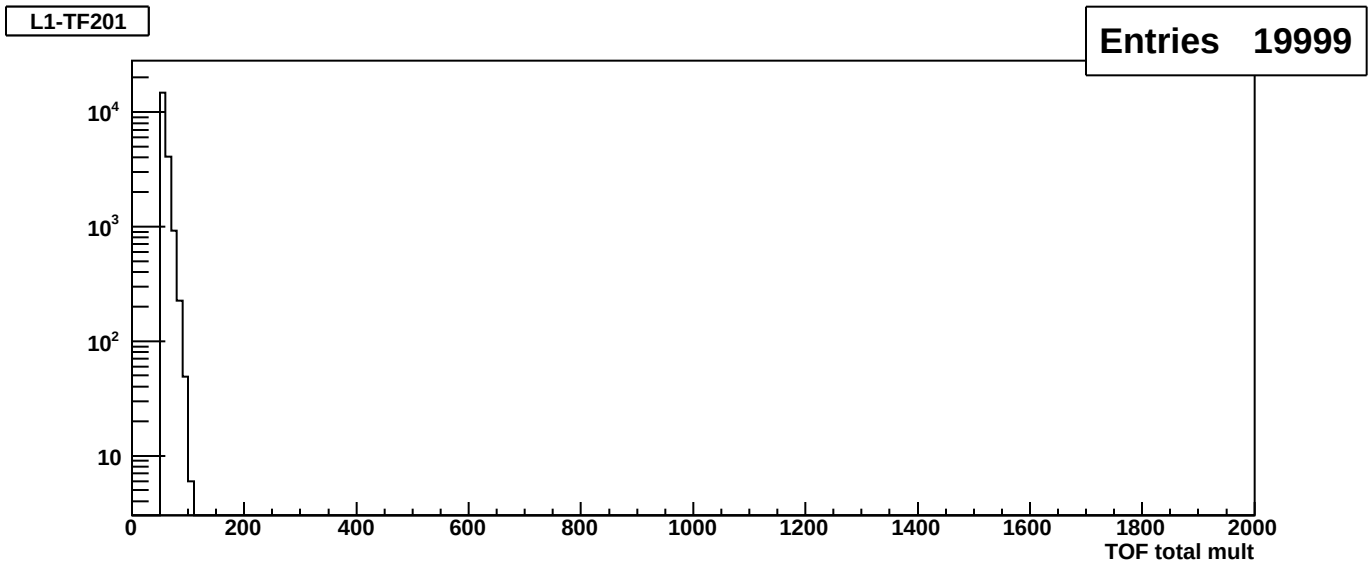

MIX-TF003
Entries 839958
TOF MULT
TOF tray

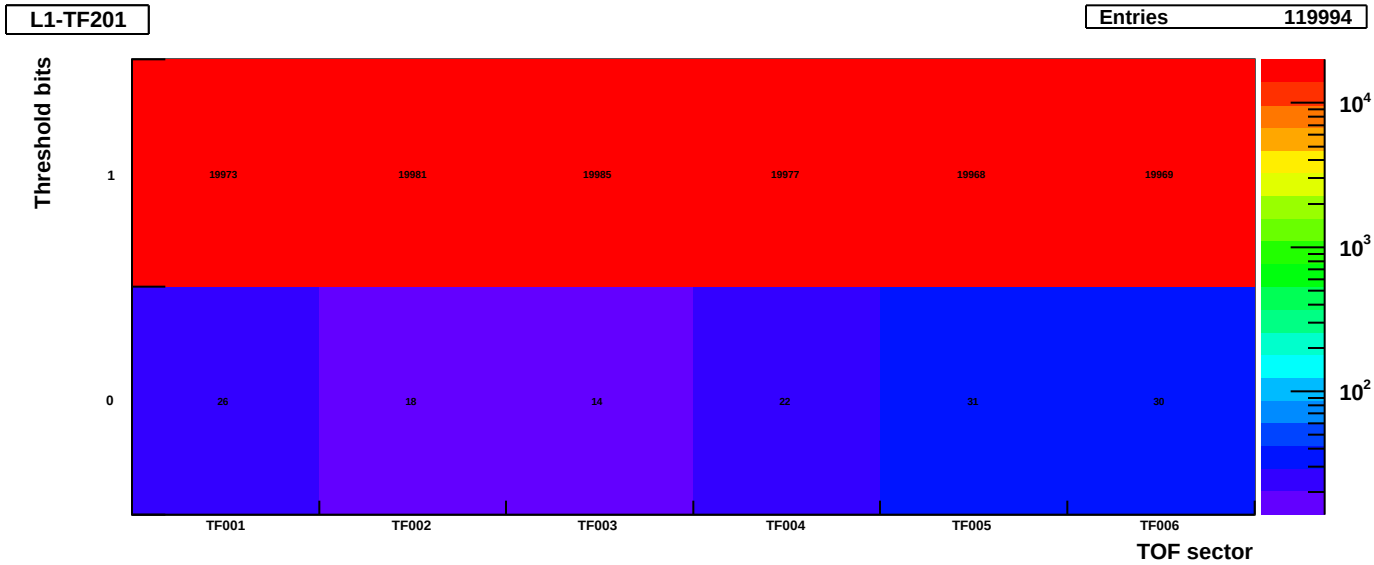

MIX-TF004
Entries 839958
TOF MULT
TOF tray

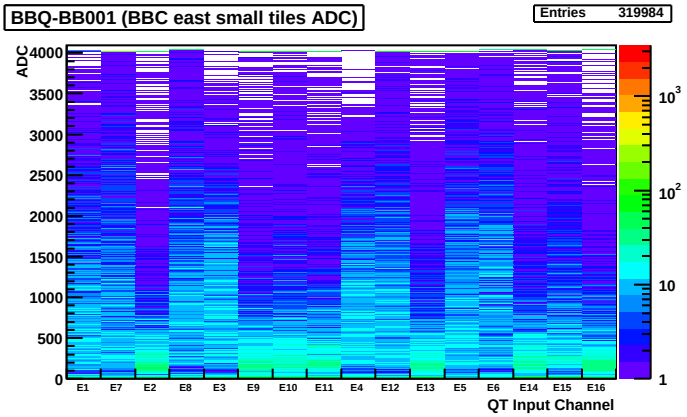

MIX-TF005
Entries 839958
TOF MULT
TOF tray

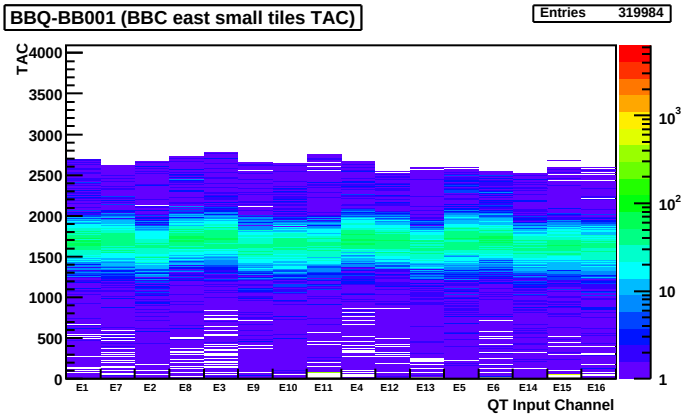

MIX-TF006
Entries 839958
TOF MULT
TOF tray

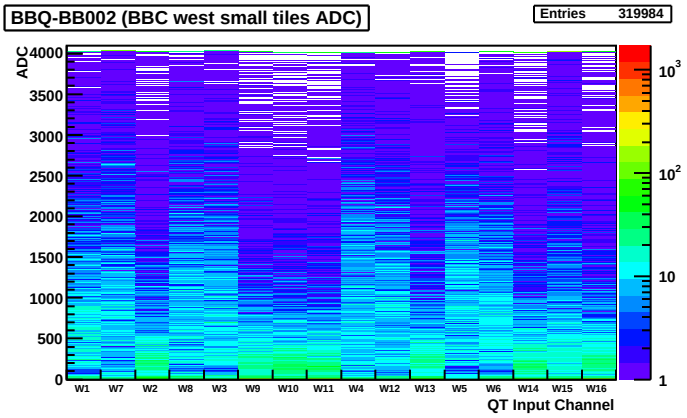

MIX-TF101
Entries 119994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

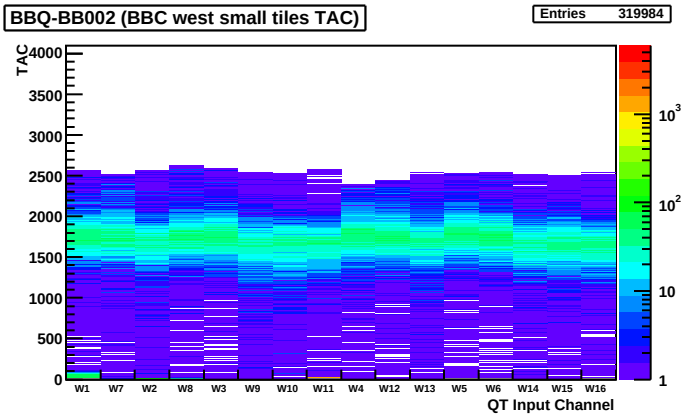

L1-TF201
Entries 19999
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

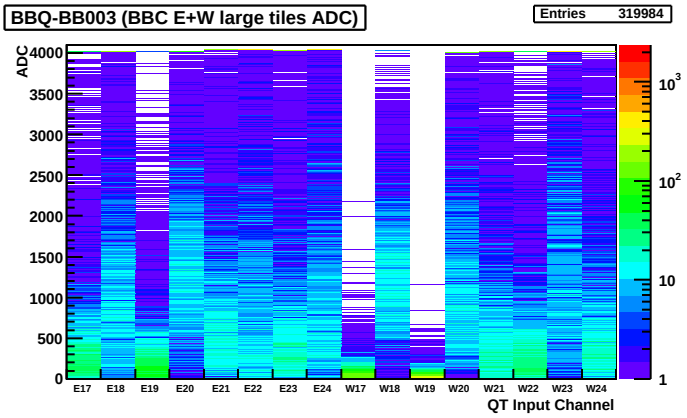

L1-TF201
Entries 119994
Threshold bits
1
0
19973
19981
19985
19977
19968
19969
26
18
14
22
31
30
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3
10^2

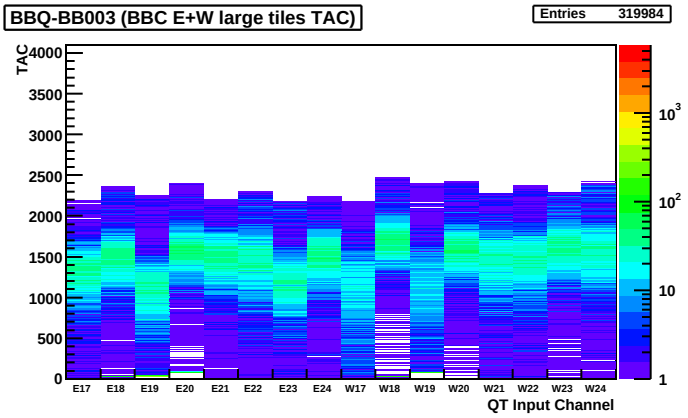

BBQ-BB001 (BBC east small tiles ADC)
Entries 319984
ADC
QT Input Channel

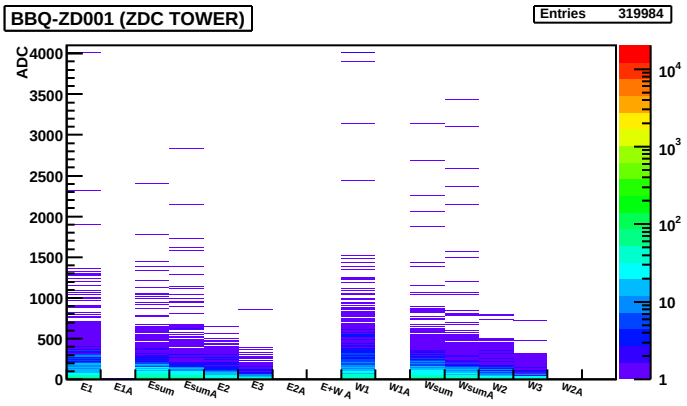

BBQ-BB001 (BBC east small tiles TAC)
Entries 319984
TAC
QT Input Channel

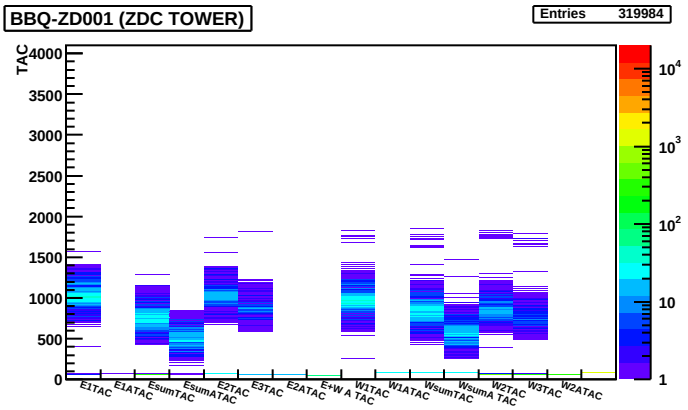

BBQ-BB002 (BBC west small tiles ADC)
Entries 319984
ADC
QT Input Channel

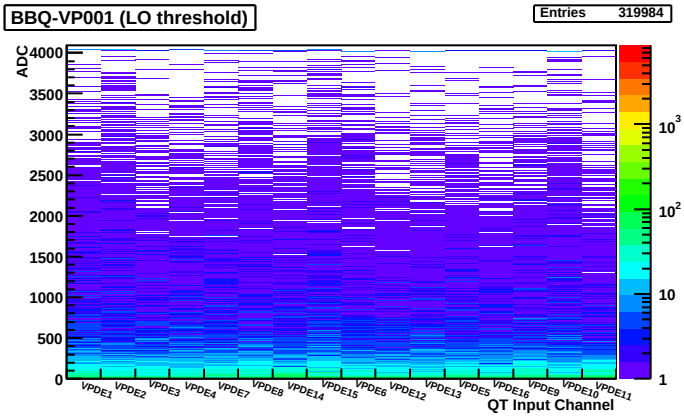

BBQ-BB002 (BBC west small tiles TAC)
Entries 319984
TAC
QT Input Channel

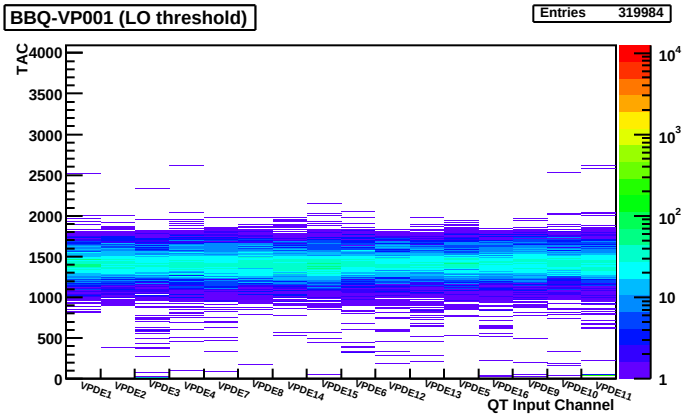

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 319984
ADC
QT Input Channel

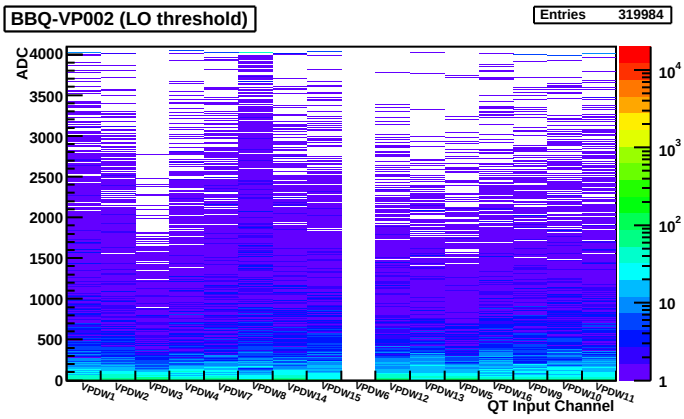

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 319984
TAC
QT Input Channel

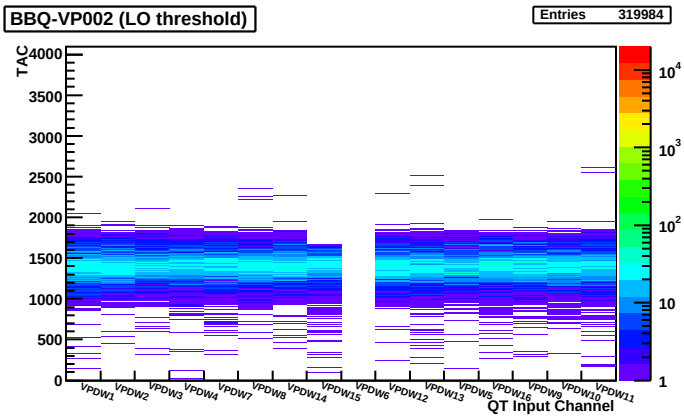

BBQ-ZD001 (ZDC TOWER)
Entries 319984
ADC

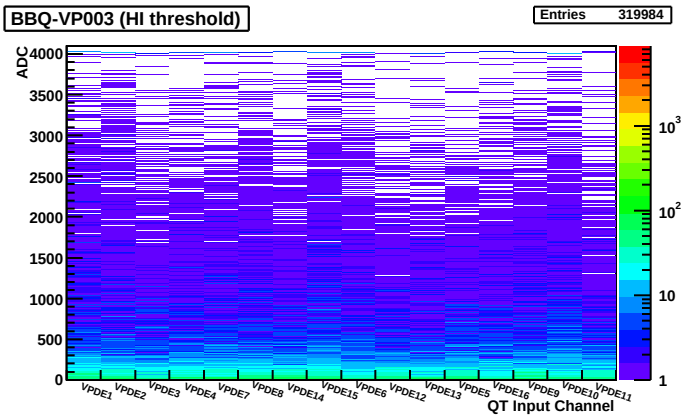

BBQ-ZD001 (ZDC TOWER)
Entries 319984
TAC

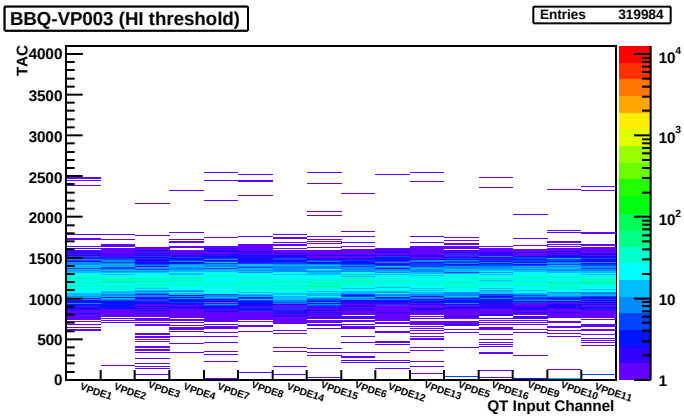

BBQ-VP001 (LO threshold)
Entries 319984
ADC
QT Input Channel

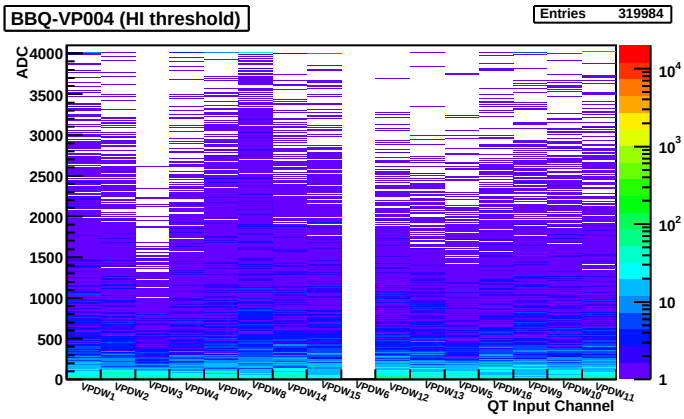

BBQ-VP001 (LO threshold)
Entries 319984
TAC
QT Input Channel

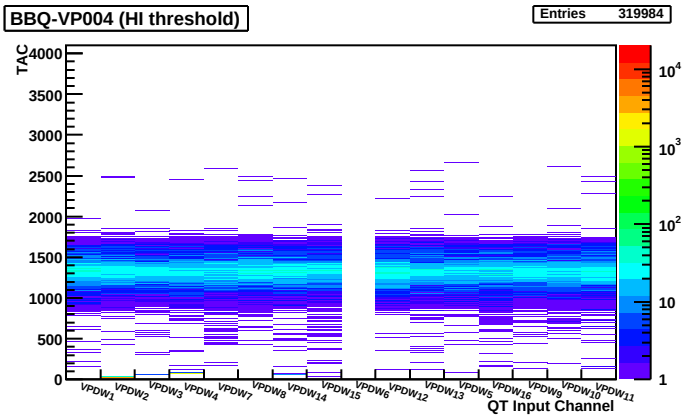

BBQ-VP002 (LO threshold)
Entries 319984
ADC
QT Input Channel

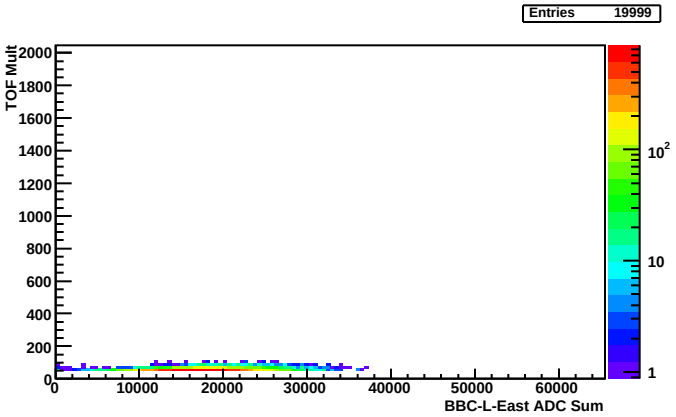

BBQ-VP002 (LO threshold)
Entries 319984
TAC
QT Input Channel

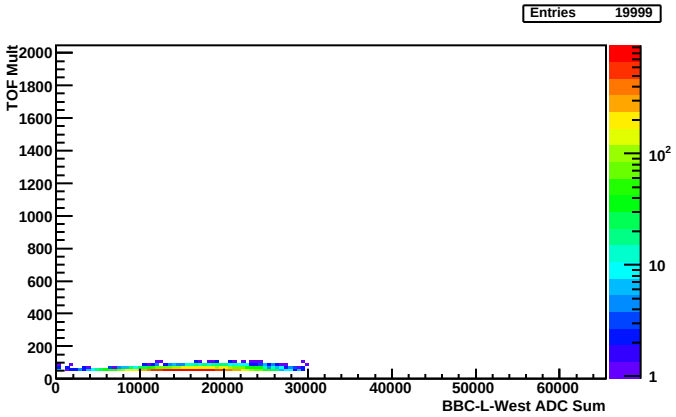

BBQ-VP003 (HI threshold)
Entries 319984
ADC
QT Input Channel

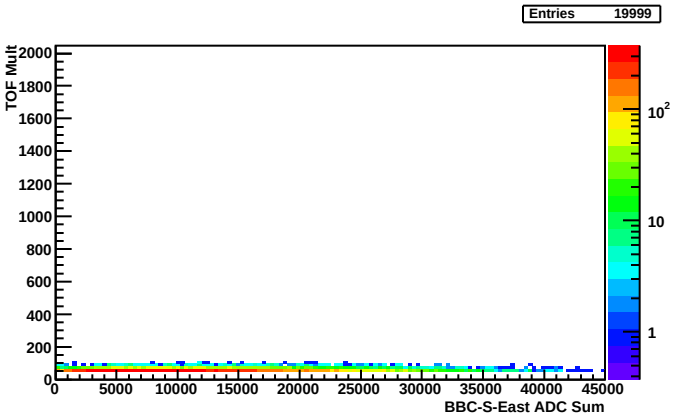

BBQ-VP003 (HI threshold)
Entries 319984
TAC
QT Input Channel

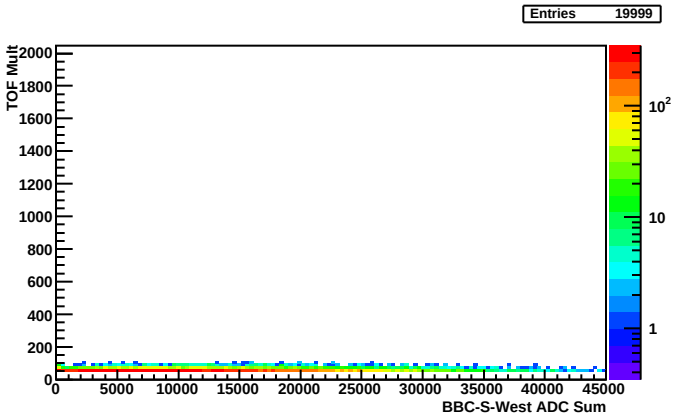

BBQ-VP004 (HI threshold)
Entries 319984
ADC
QT Input Channel

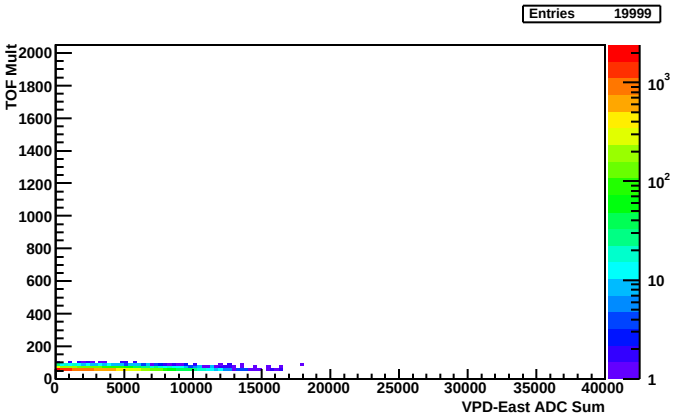

BBQ-VP004 (HI threshold)
Entries 319984
TAC
QT Input Channel

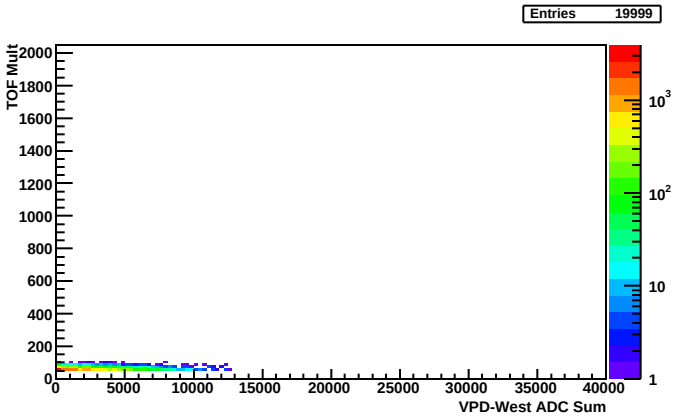

Entries 19999
TOF Mult
BBC-L-East ADC Sum

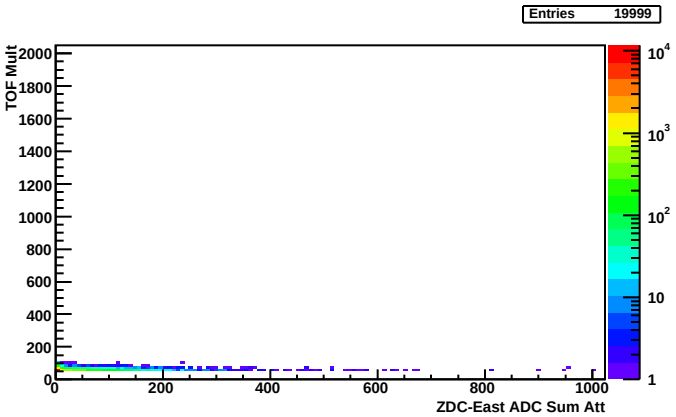

Entries 19999
TOF Mult
BBC-L-West ADC Sum

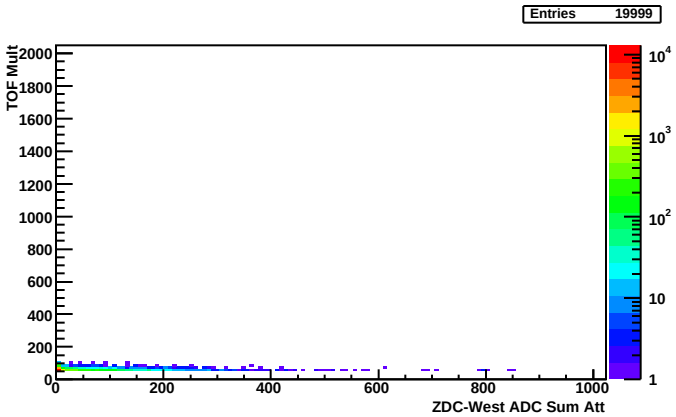

Entries 19999
TOF Mult
BBC-S-East ADC Sum

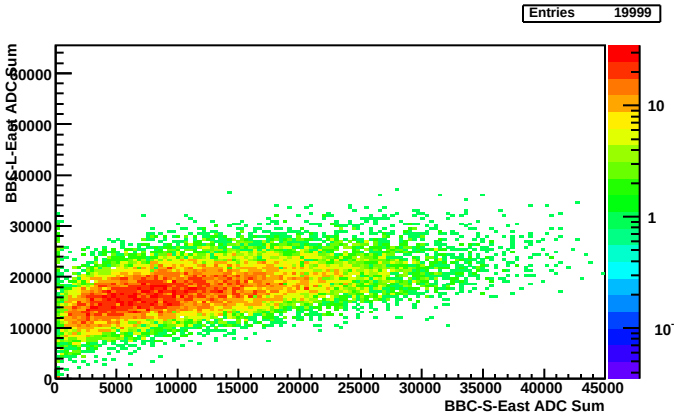

Entries 19999
TOF Mult
BBC-S-West ADC Sum

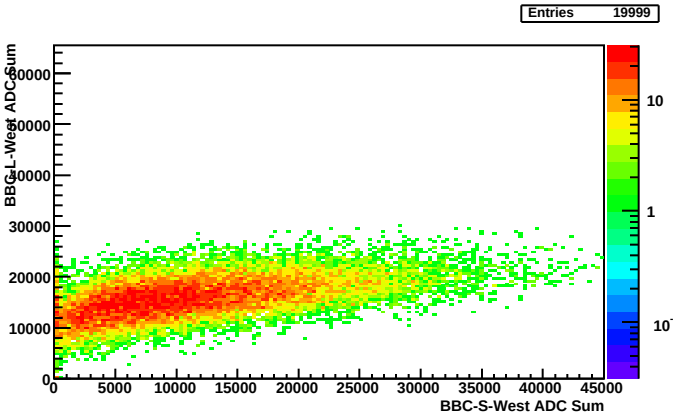

Entries 19999
TOF Mult
VPD-East ADC Sum

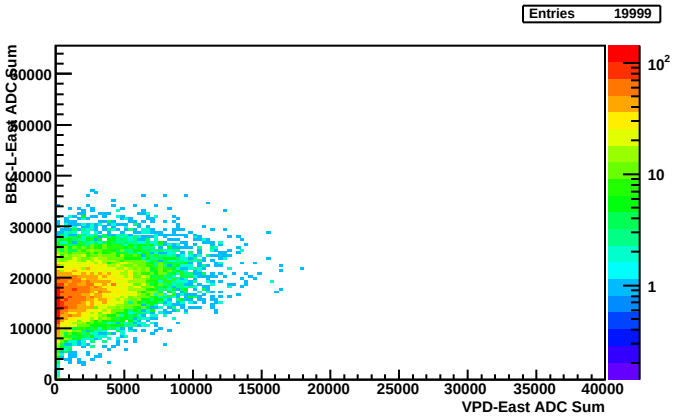

Entries 19999
TOF Mult
VPD-West ADC Sum

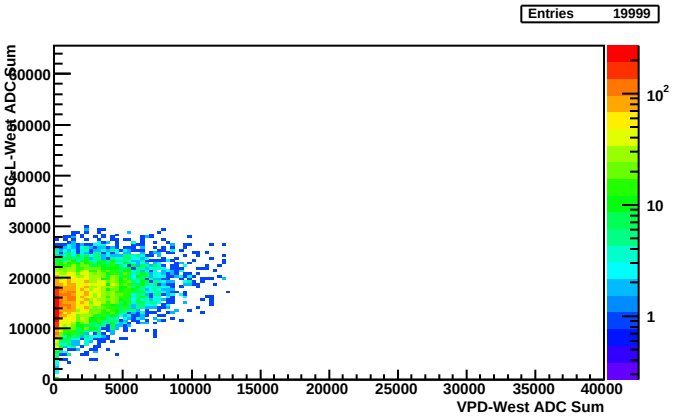

Entries 19999
TOF Mult
ZDC-East ADC Sum Att


Entries 19999
TOF Mult
ZDC-West ADC Sum Att


Entries 19999
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 19999
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 19999
BBC-L-East ADC Sum
VPD-East ADC Sum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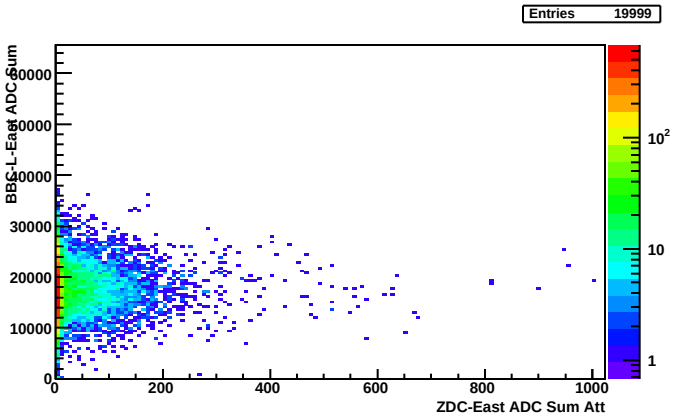
BBC-L-West ADC Sum
VPD-West ADC Sum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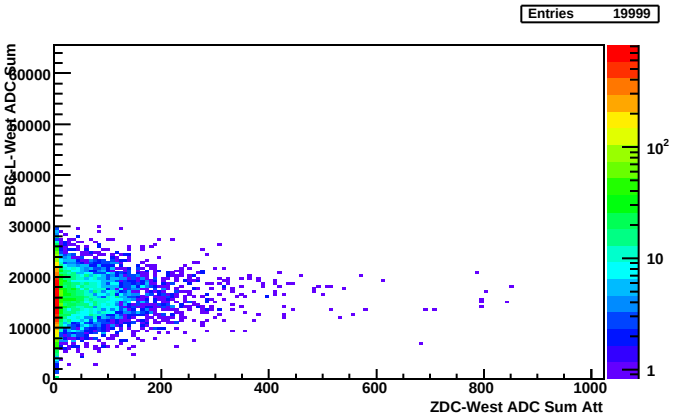
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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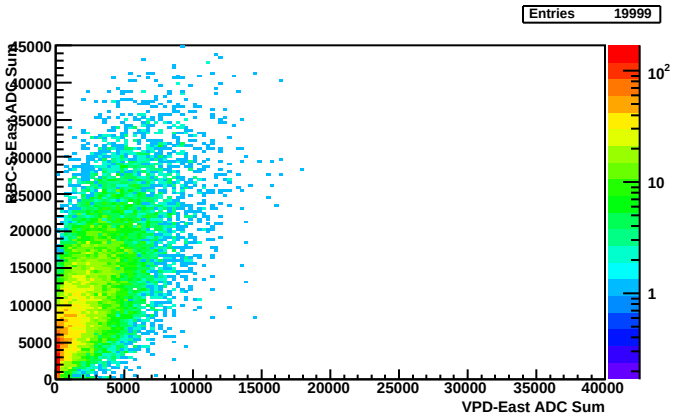
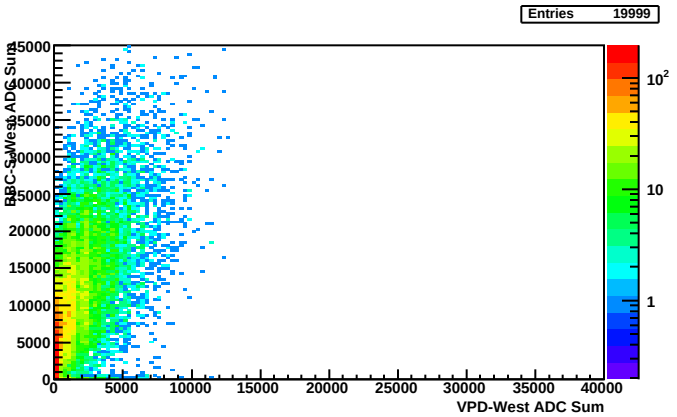
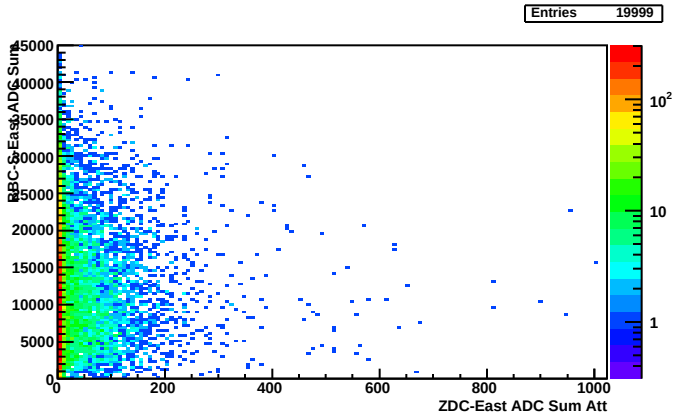
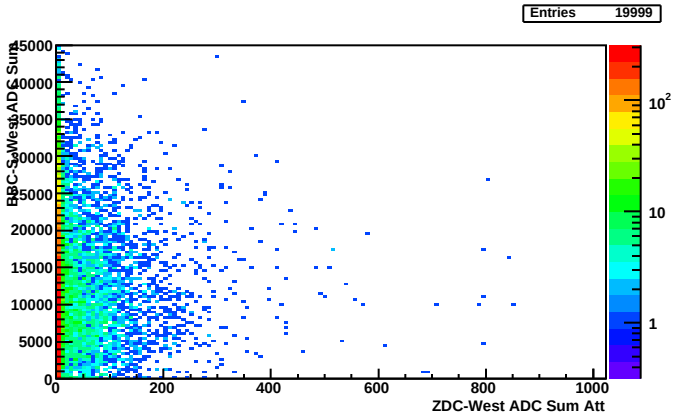
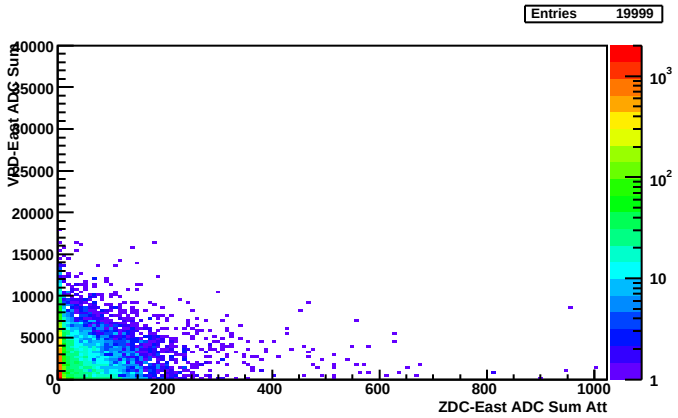
ZDC-West ADC Sum Att

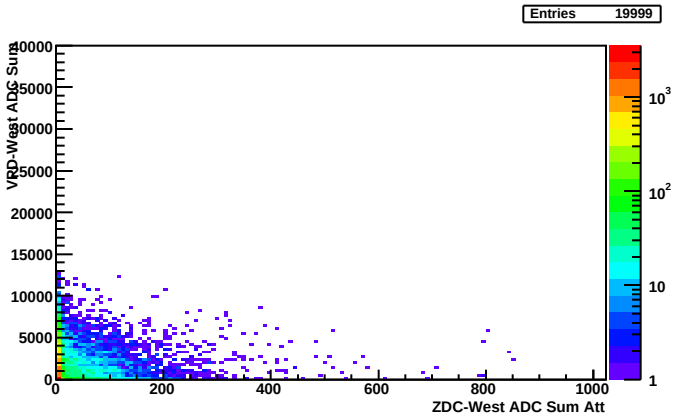

Entries 19999
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 19999
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 19999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 19999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 19999
VPD-East ADC Sum
ZDC-East ADC Sum Att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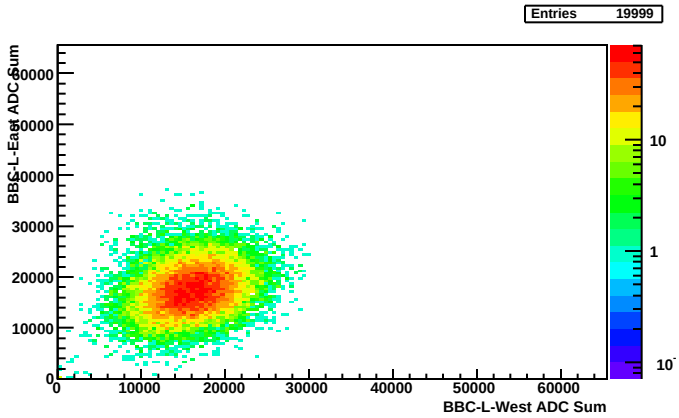
ZDC-West ADC Sum Att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BBC-L-East ADC Sum
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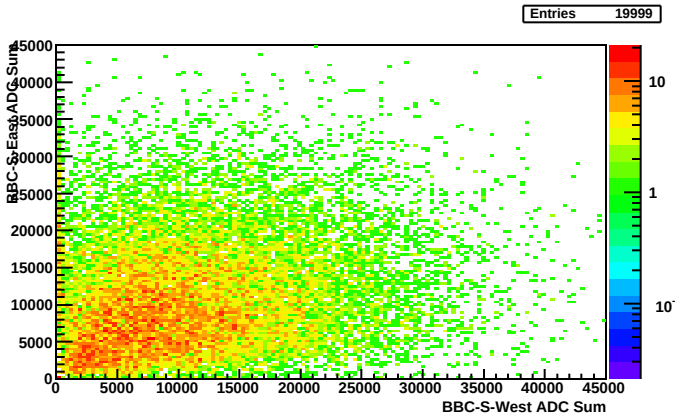
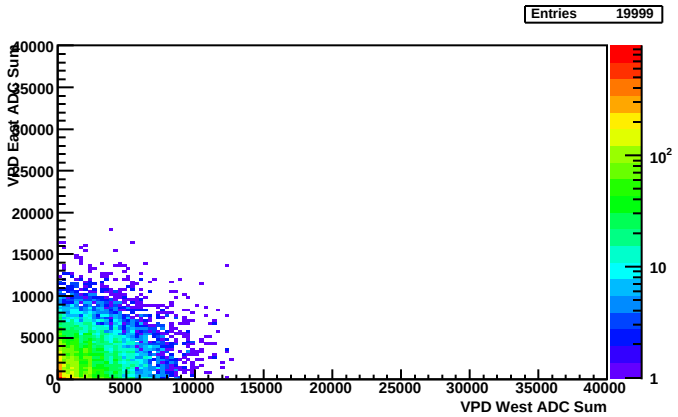

Entries 19999
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 19999
VPD East ADC Sum
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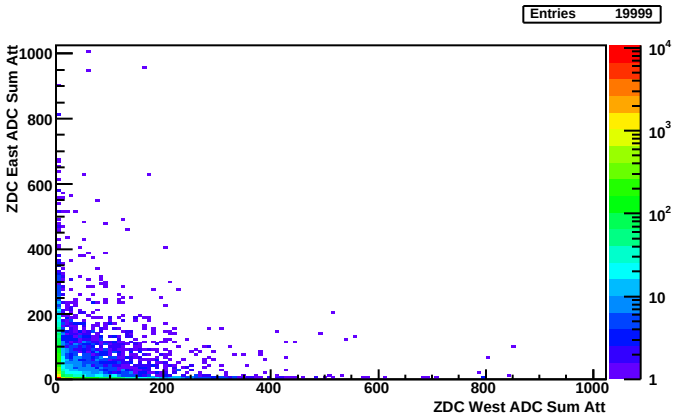
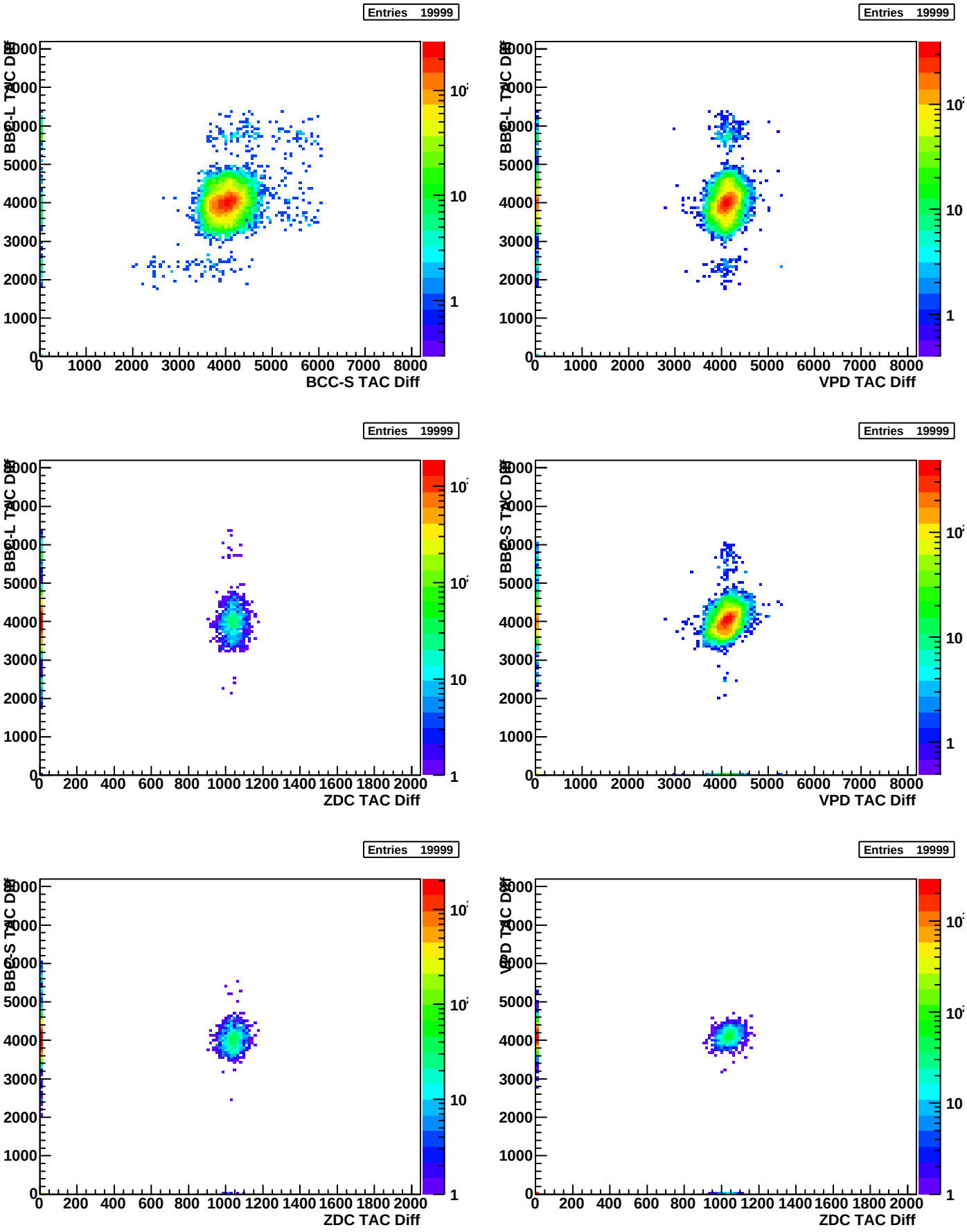
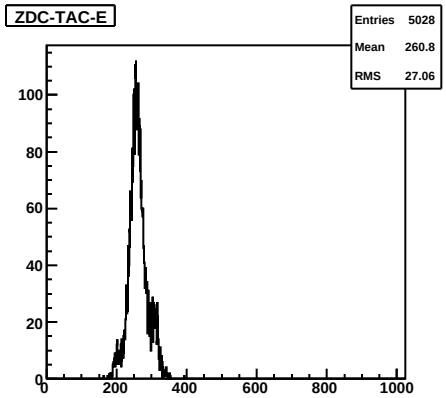
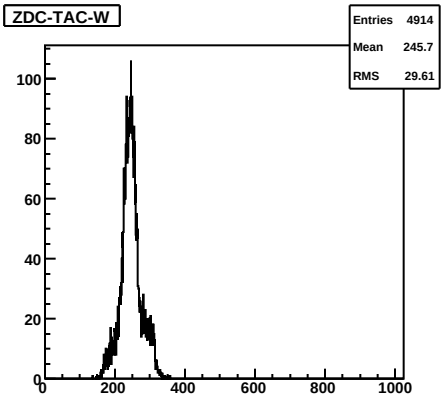
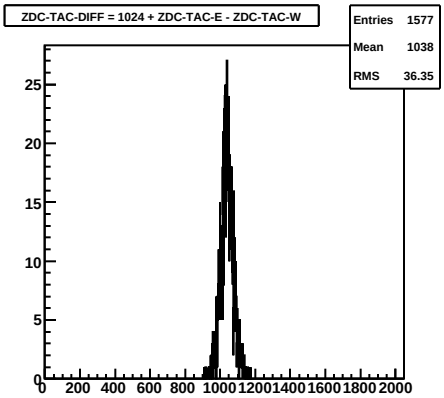
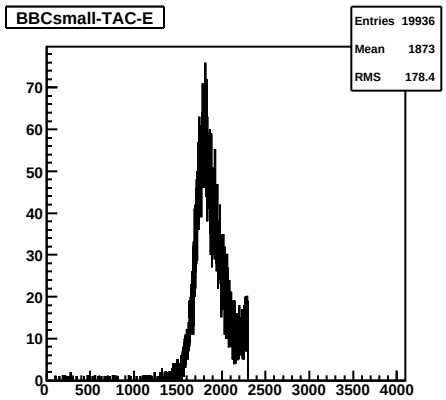

Entries 19999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

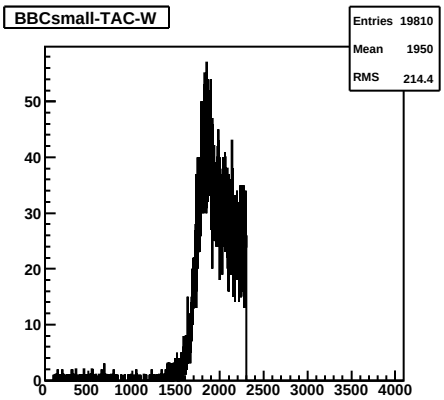

Entries 19999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 19999
BBC-L TAC Diff
VPD TAC Diff
Entries 19999
BBC-L TAC Diff
ZDC TAC Diff
Entries 19999
BBC-S TAC Diff
VPD TAC Diff
Entries 19999
BBC-S TAC Diff
ZDC TAC Diff
Entries 19999
VPD TAC Diff
ZDC TAC Diff

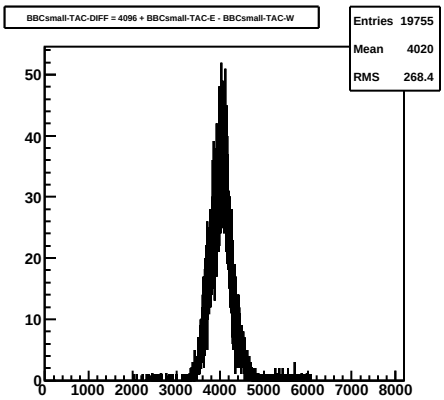

ZDC-TAC-E
Entries 5028
Mean 260.8
RMS 27.06

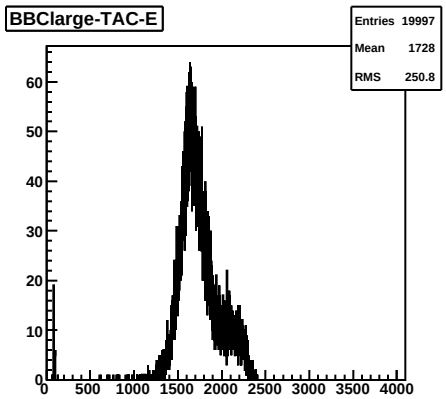

ZDC-TAC-W
Entries 4914
Mean 245.7
RMS 29.61

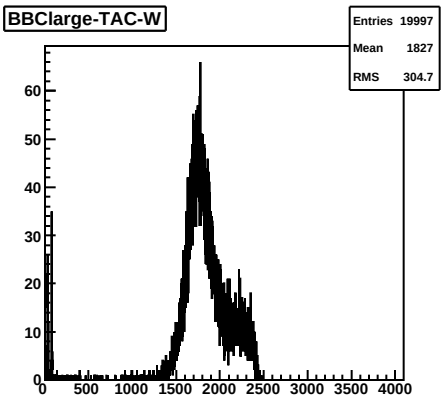

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1577
Mean 1038
RMS 36.35

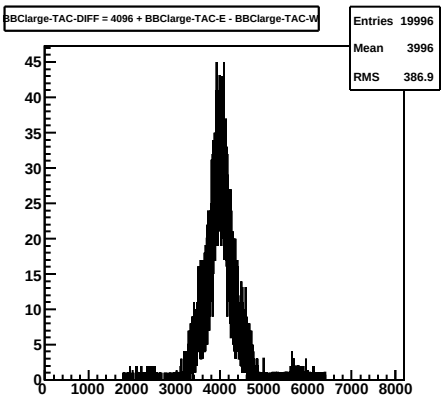

BBCsmall-TAC-E
Entries 19936
Mean 1873
RMS 178.4

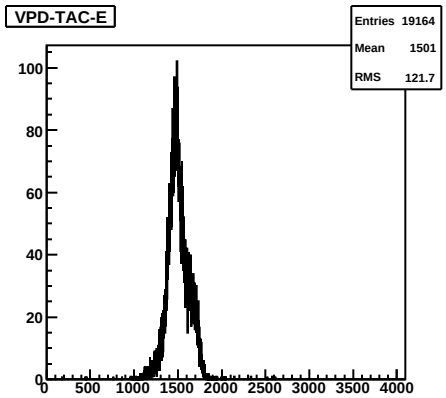

BBCsmall-TAC-W
Entries 19810
Mean 1950
RMS 214.4

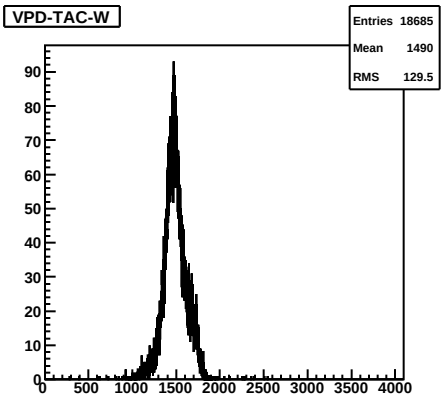

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 19755
Mean 4020
RMS 268.4

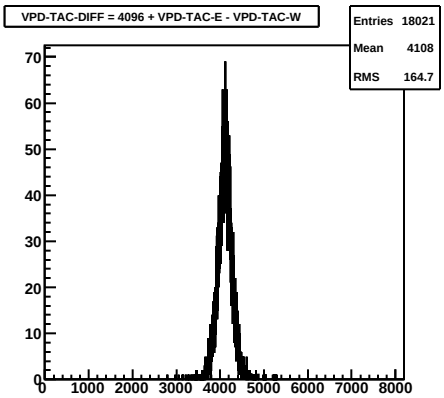

BBClarge-TAC-E
Entries 19997
Mean 1728
RMS 250.8

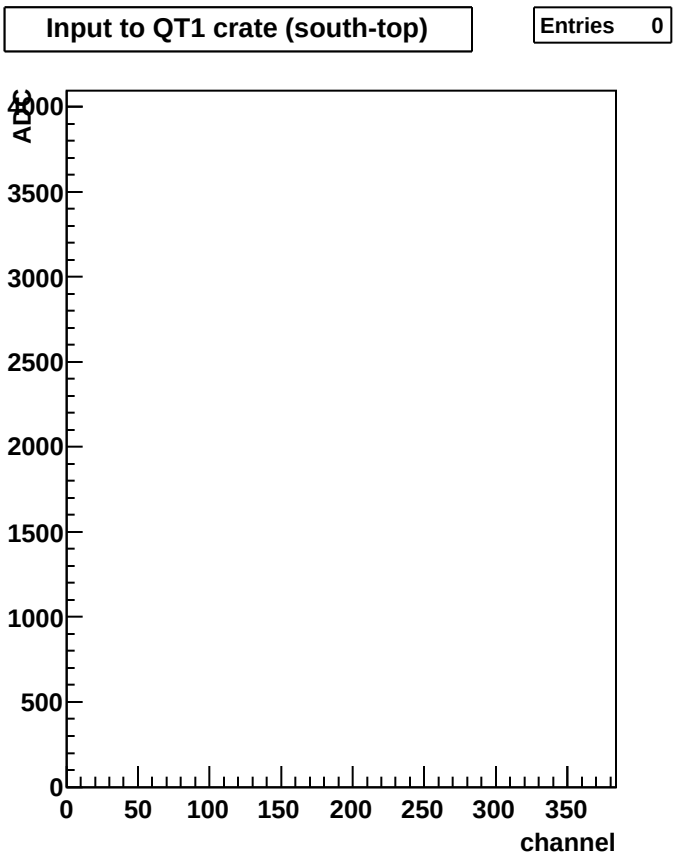

BBClarge-TAC-W
Entries 19997
Mean 1827
RMS 304.7

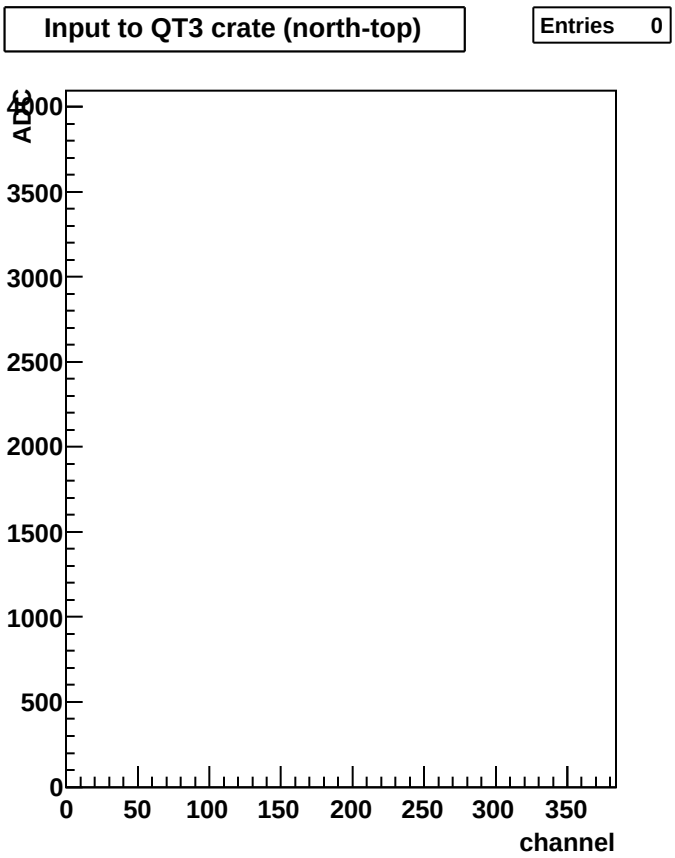

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 19996
Mean 3996
RMS 386.9

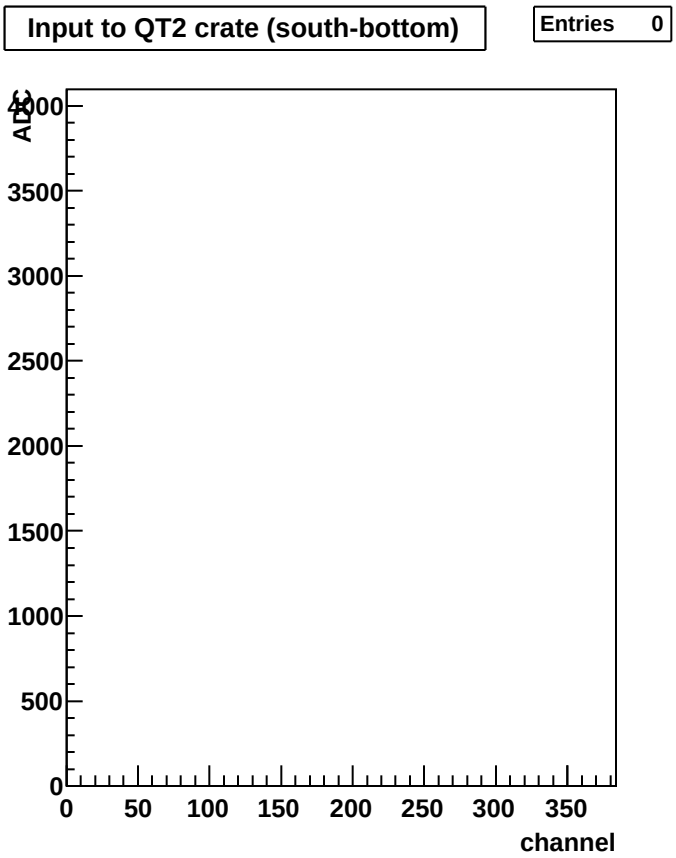

VPD-TAC-E
Entries 19164
Mean 1501
RMS 121.7

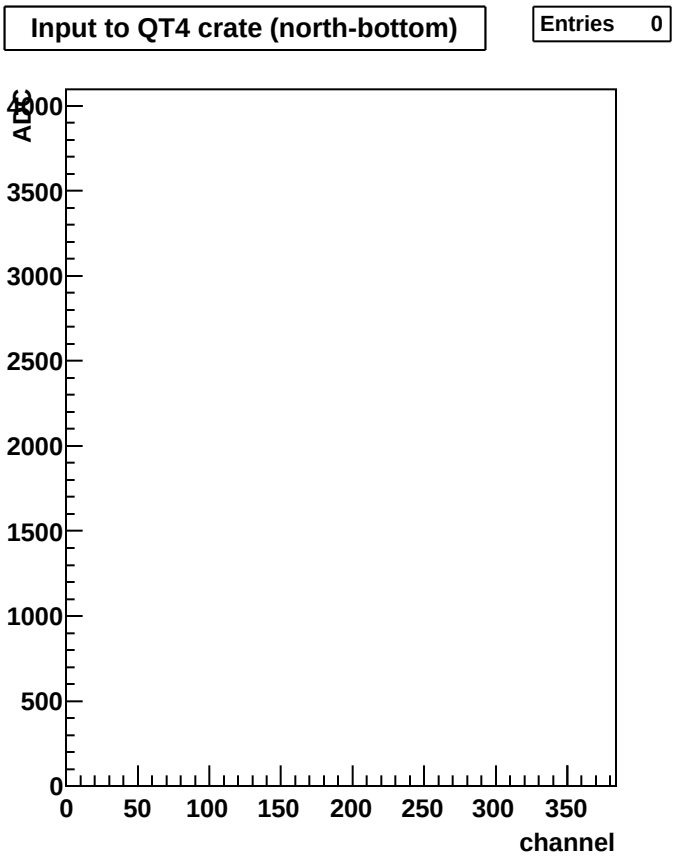

VPD-TAC-W
Entries 18685
Mean 1490
RMS 129.5

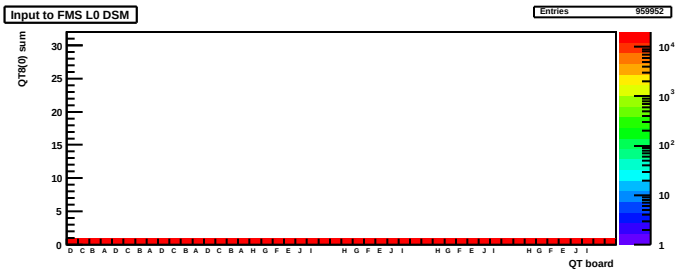

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 18021
Mean 4108
RMS 164.7

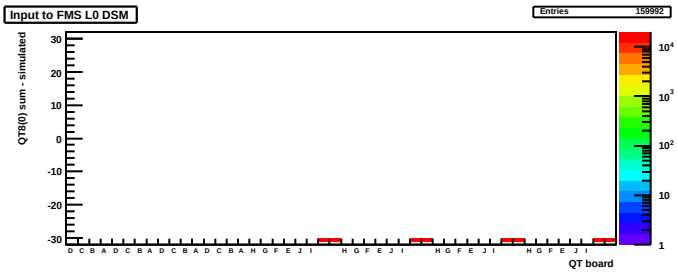

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

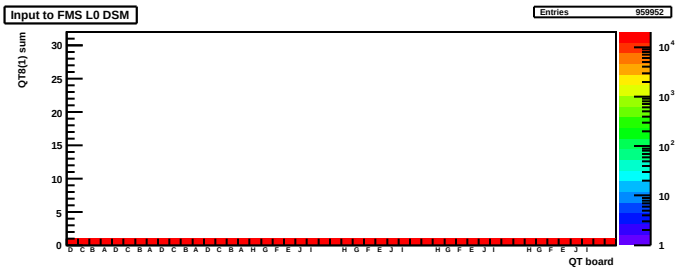

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

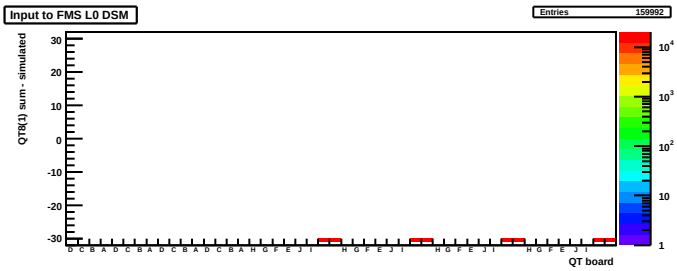

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

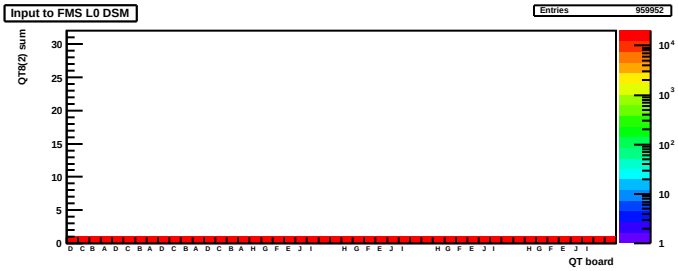

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

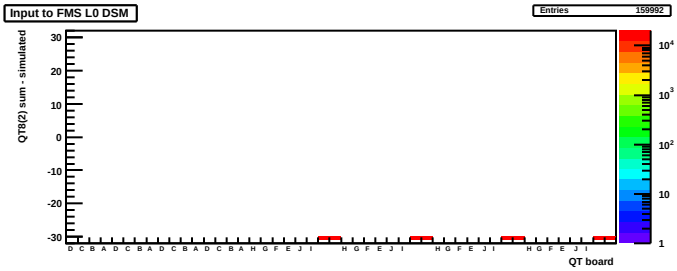

Input to FMS L0 DSM
Entries 959952
QT8(0) sum
QT board

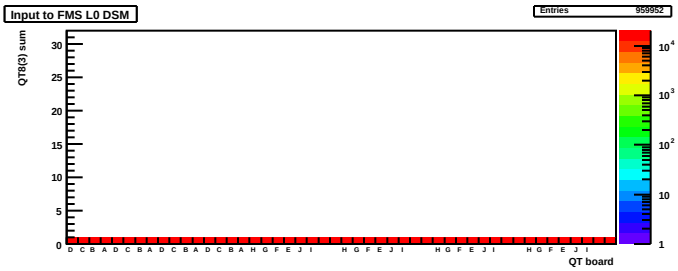

Input to FMS L0 DSM
Entries 159992
QT8(0) sum - simulated
QT board

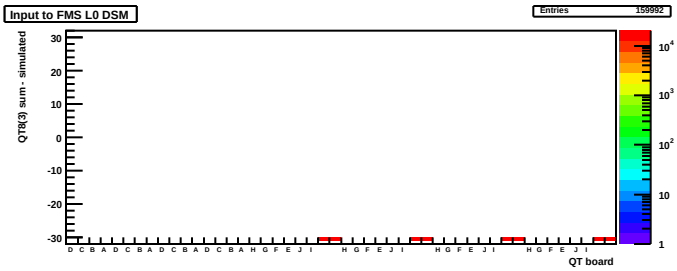

Input to FMS L0 DSM
Entries 959952
QT8(1) sum
QT board

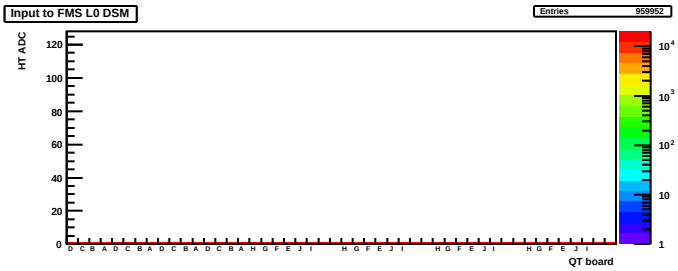

Input to FMS L0 DSM
Entries 159992
QT8(1) sum - simulated
QT board

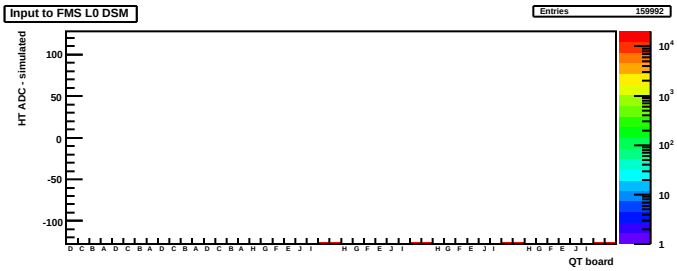

Input to FMS L0 DSM
Entries 959952
QT8(2) sum
QT board

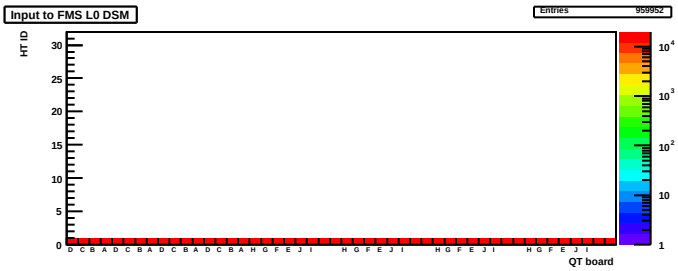

Input to FMS L0 DSM
Entries 159992
QT8(2) sum - simulated
QT board

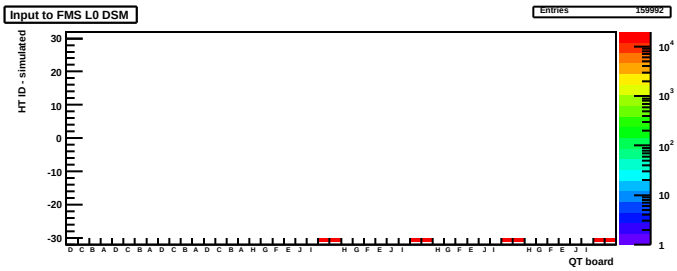

Input to FMS L0 DSM
Entries 959952
QT8(3) sum
QT board

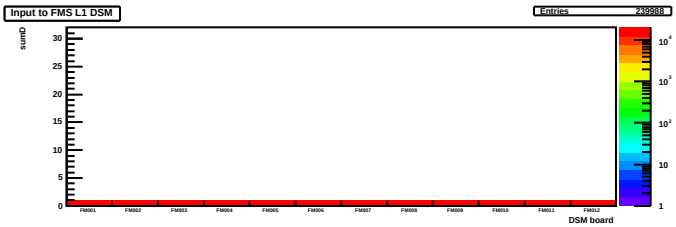

Input to FMS L0 DSM
Entries 159992
QT8(3) sum - simulated
QT board

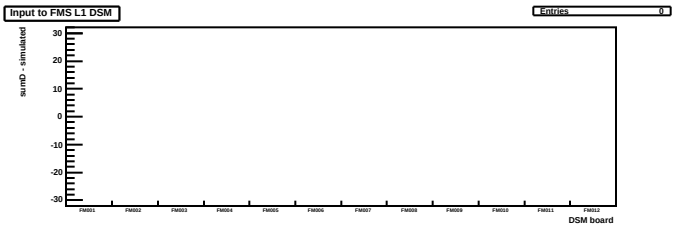

Input to FMS L0 DSM
Entries 959952
HT ADC
QT board

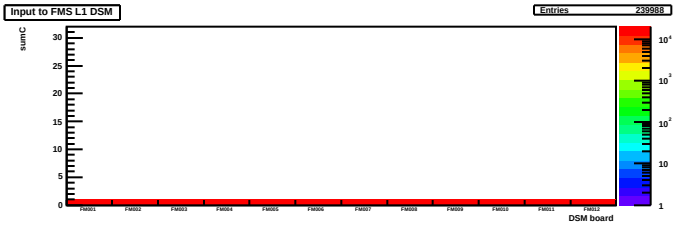

Input to FMS L0 DSM
Entries 159992
HT ADC - simulated
QT board

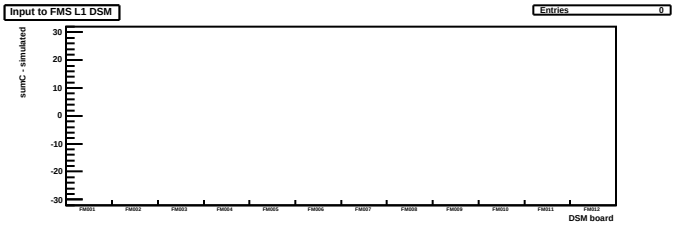

Input to FMS L0 DSM
Entries 959952
HT ID
QT board

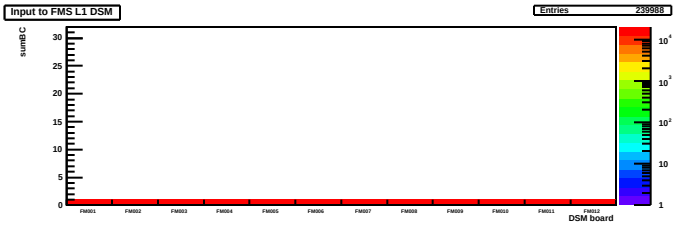

Input to FMS L0 DSM
Entries 159992
HT ID - simulated
QT board

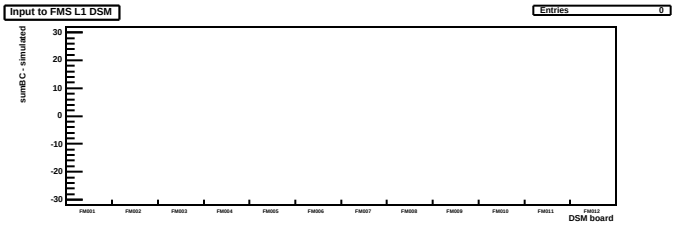

Input to FMS L1 DSM
Entries 239988
sumD
DSM board

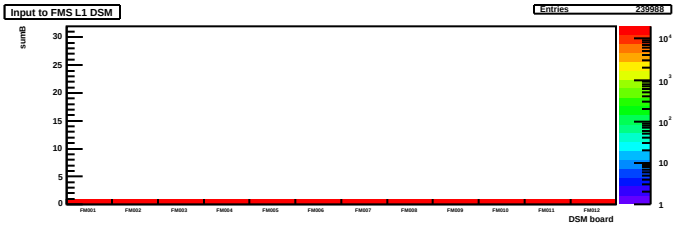

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

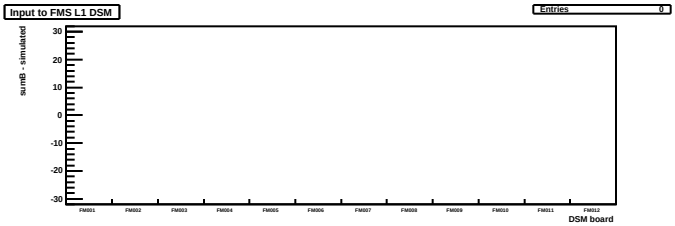

Input to FMS L1 DSM
Entries 239988
sumC
DSM board

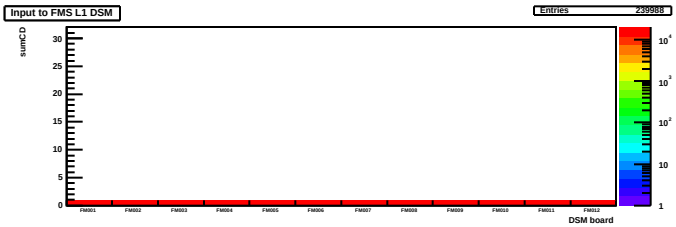

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

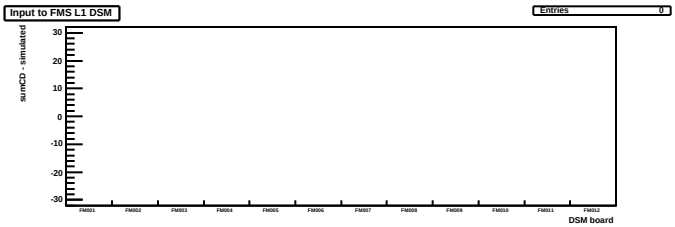

Input to FMS L1 DSM
Entries 239988
sumBC
DSM board

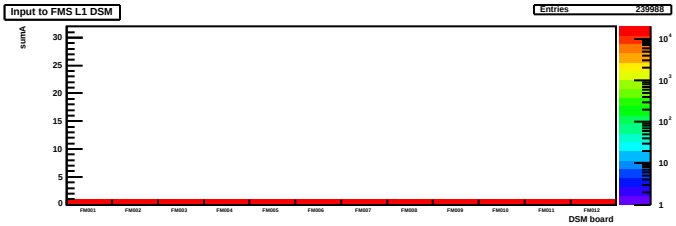

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

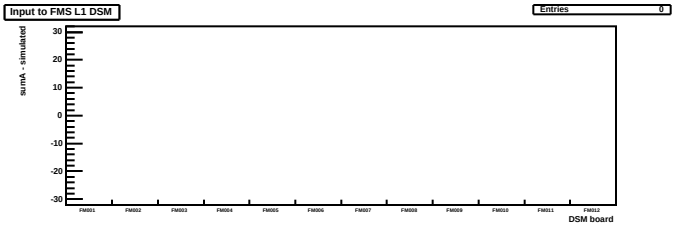

Input to FMS L1 DSM
Entries 239988
sumB
DSM board

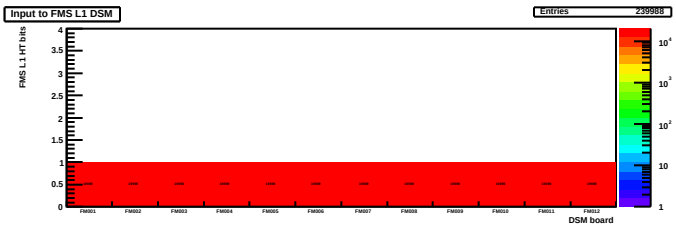

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

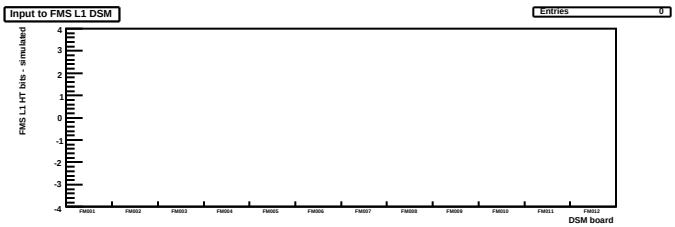

Input to FMS L1 DSM
Entries 239988
sumCD
DSM board

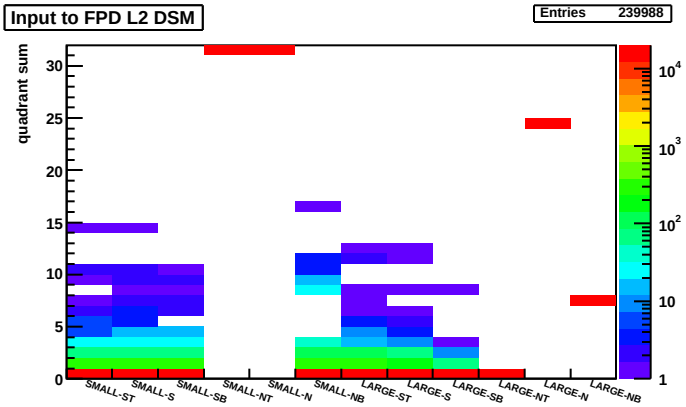

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

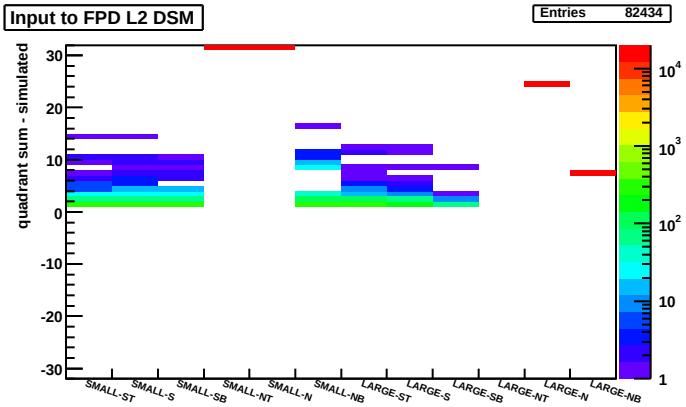

Input to FMS L1 DSM
Entries 239988
sumA
DSM board

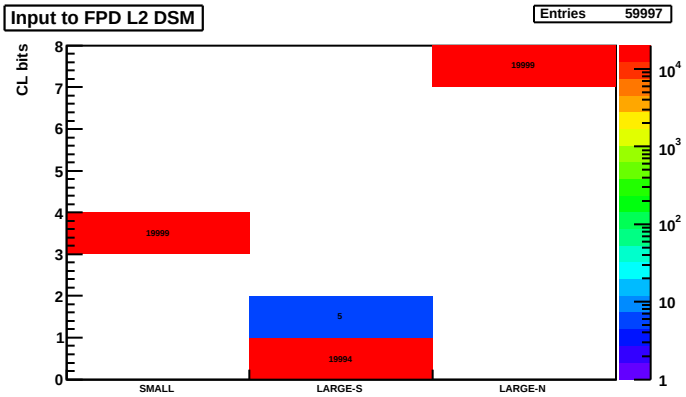

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

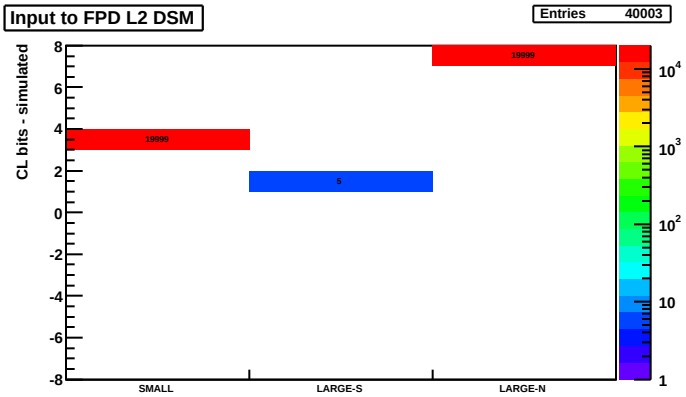

Input to FMS L1 DSM
Entries 239988
FMS L1 HT bits
DSM board

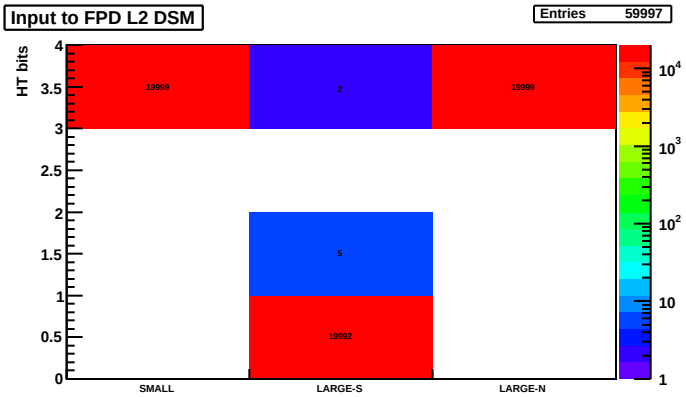

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

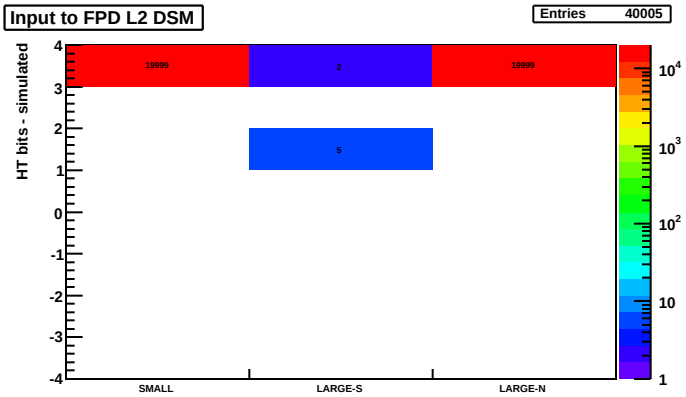

Input to FPD L2 DSM
Entries 239988
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

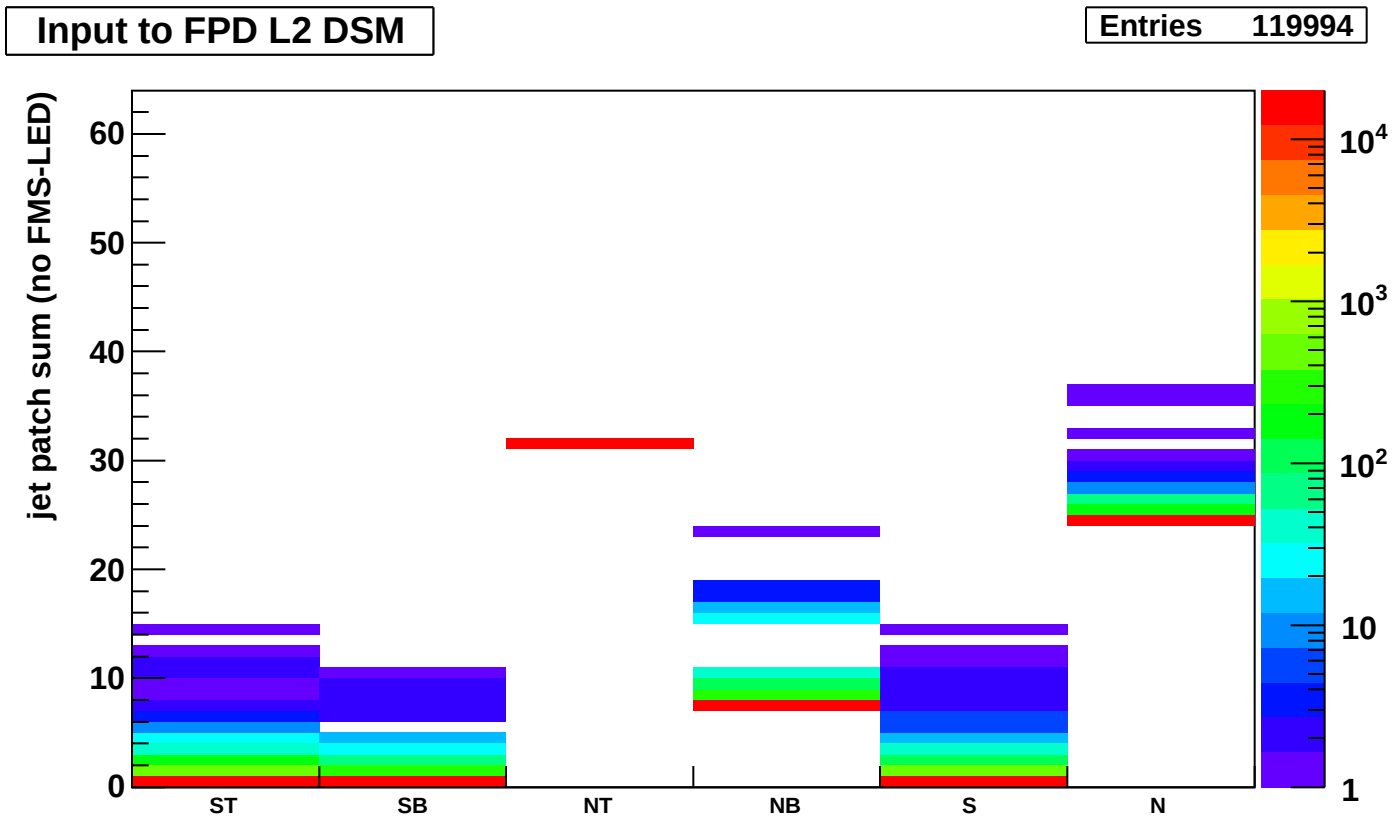

Input to FPD L2 DSM
Entries 82434
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

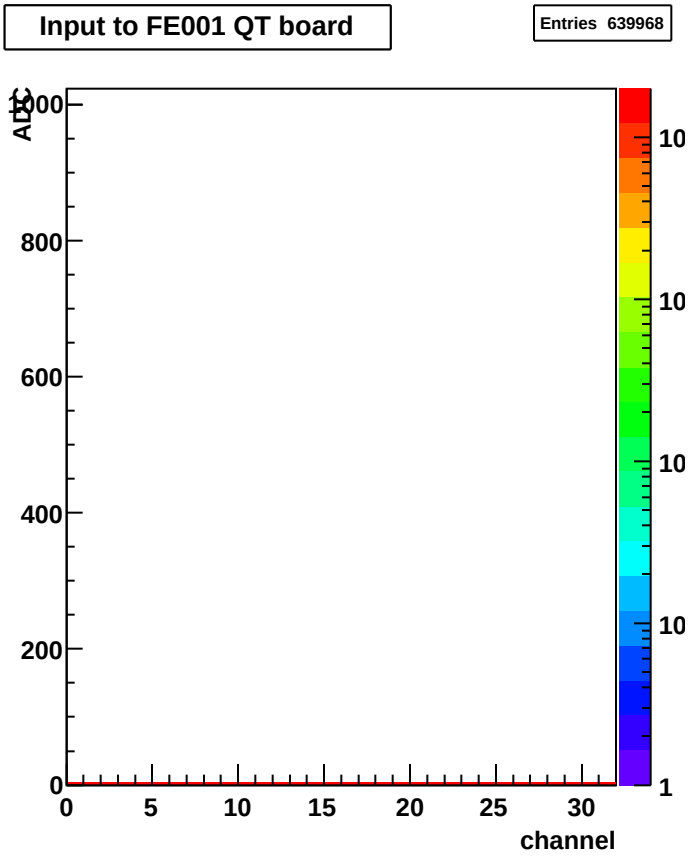

Input to FPD L2 DSM
Entries 59997
CL bits
19999
5
19994
SMALL
LARGE-S
LARGE-N

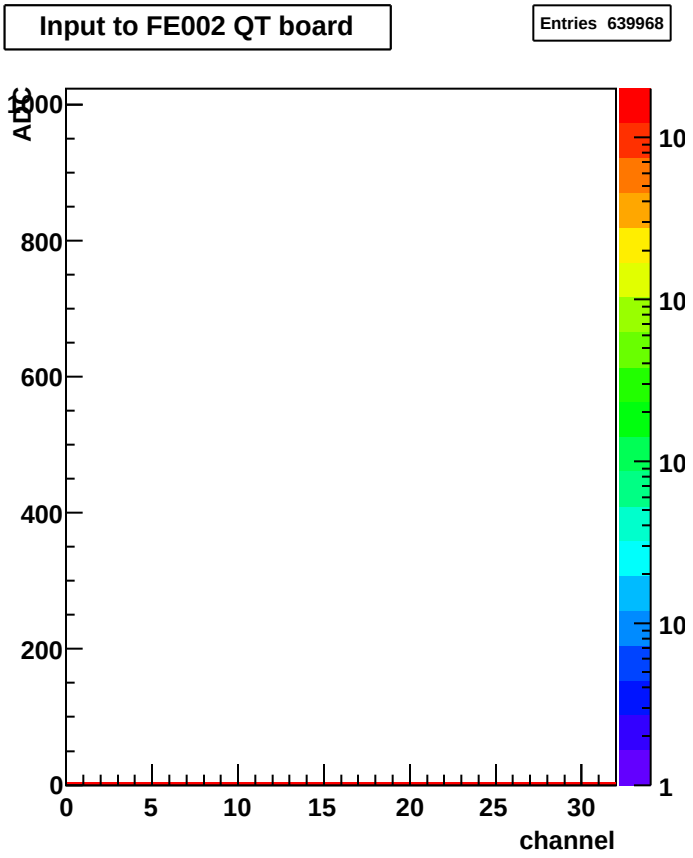

Input to FPD L2 DSM
Entries 40003
CL bits - simulated
19999
5
SMALL
LARGE-S
LARGE-N

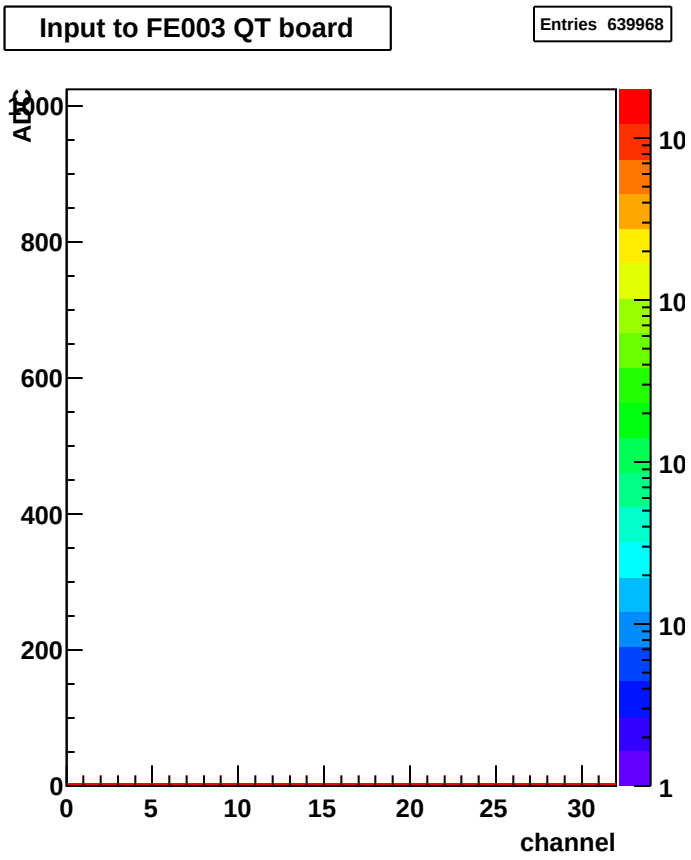

Input to FPD L2 DSM
Entries 59997
HT bits
19999
2
5
19992
SMALL
LARGE-S
LARGE-N

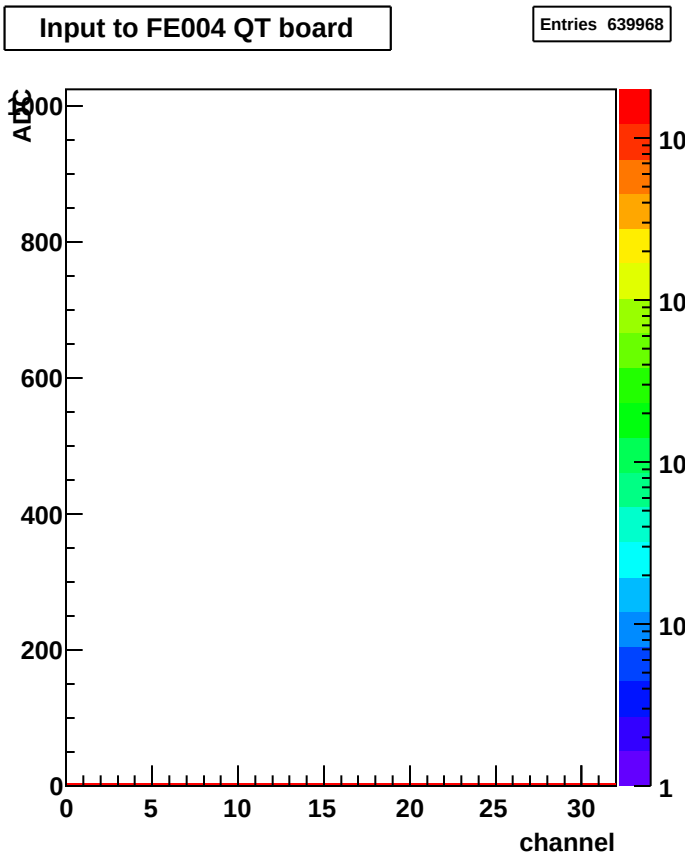

Input to FPD L2 DSM
Entries 40005
HT bits - simulated
19999
2
5
SMALL
LARGE-S
LARGE-N

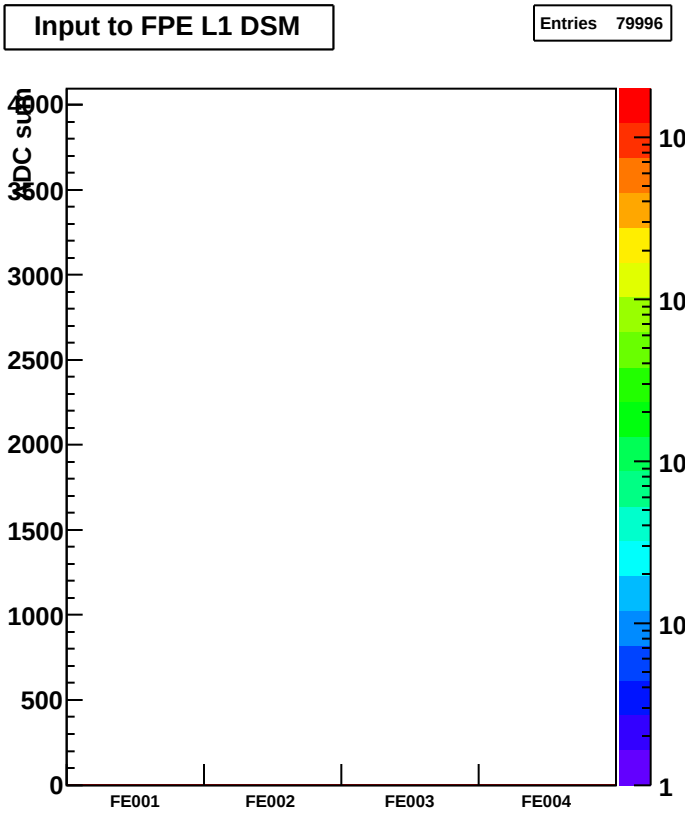

Input to FPD L2 DSM
Entries 119994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

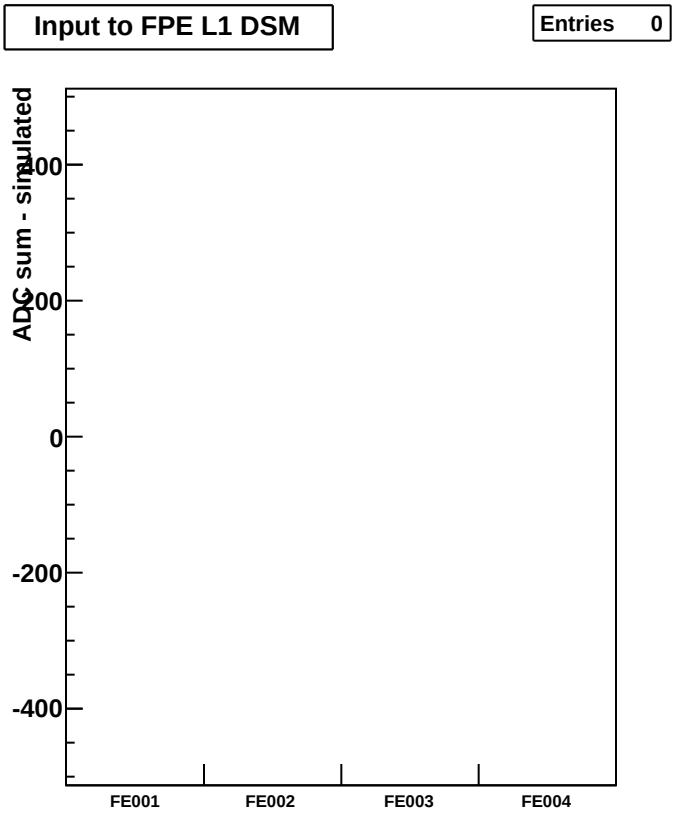

Input to FE001 QT board
Entries 639968
ADC
channel

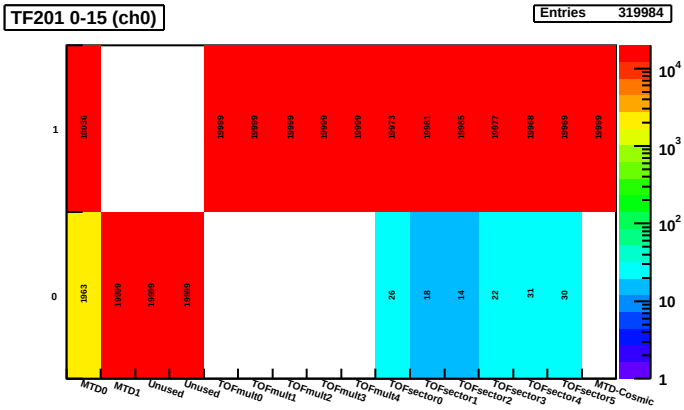

Input to FE002 QT board
Entries 639968
ADC
channel

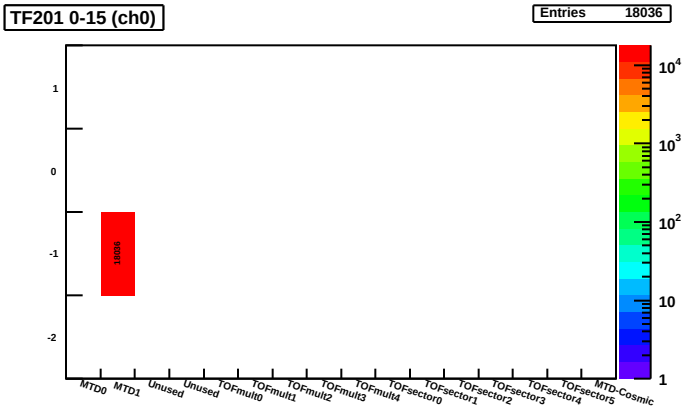

Input to FE003 QT board
Entries 639968
ADC
channel

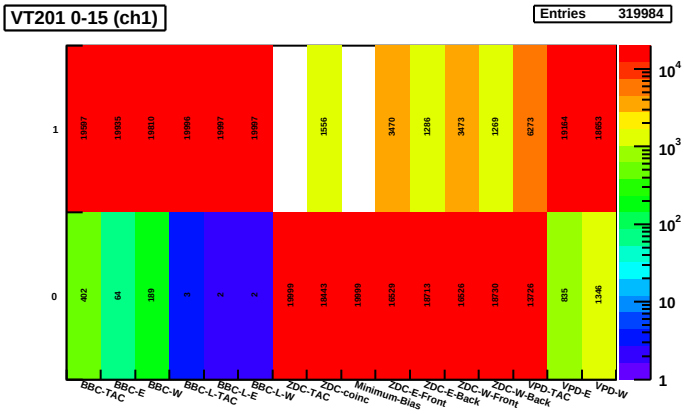

Input to FE004 QT board
Entries 639968
ADC
channel

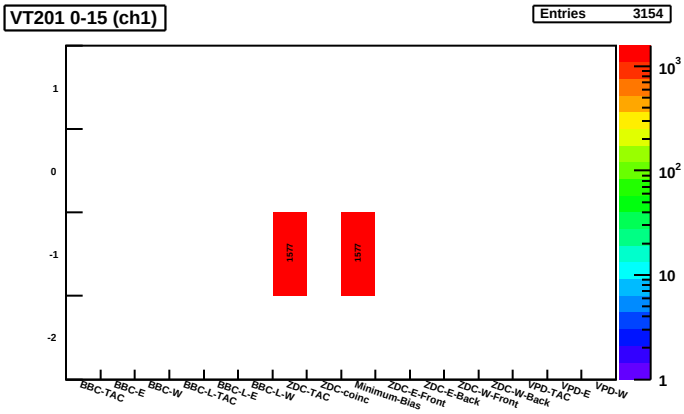

Input to FPE L1 DSM
Entries 79996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

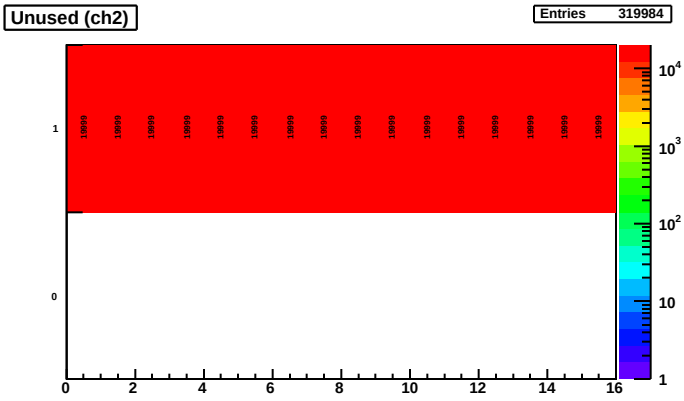

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

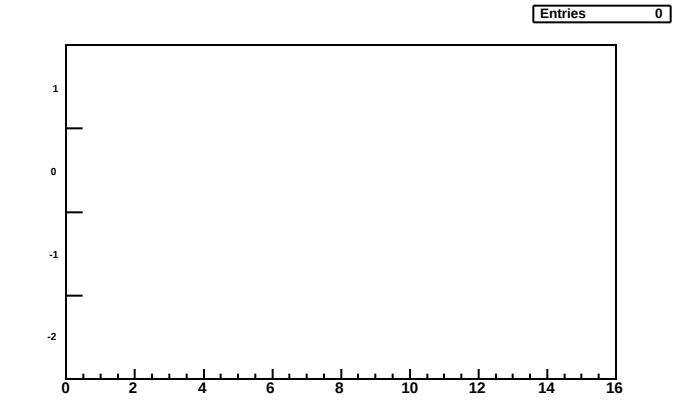

TF201 0-15 (ch0)
Entries 319984
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

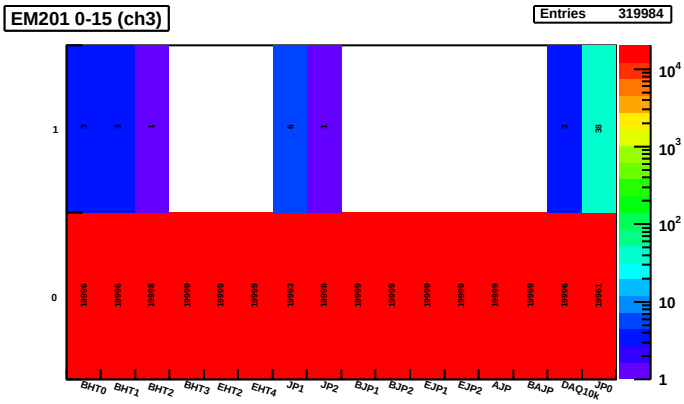

TF201 0-15 (ch0)
Entries 18036
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

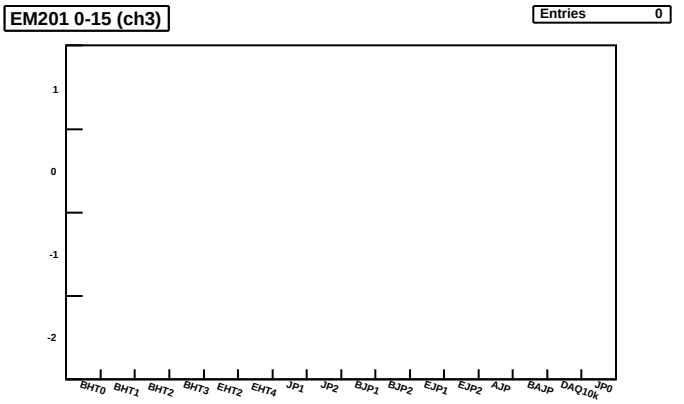

VT201 0-15 (ch1)
Entries 319984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 3154
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

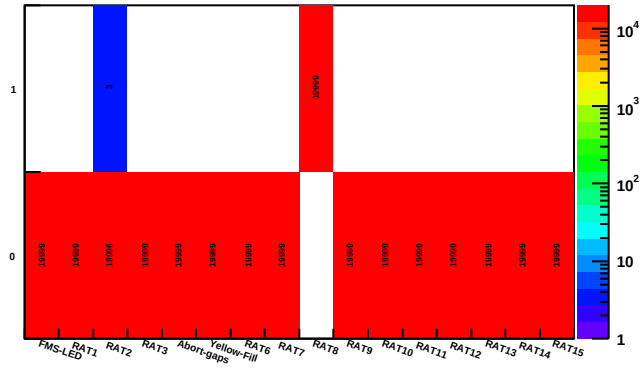

Unused (ch2)
Entries 319984

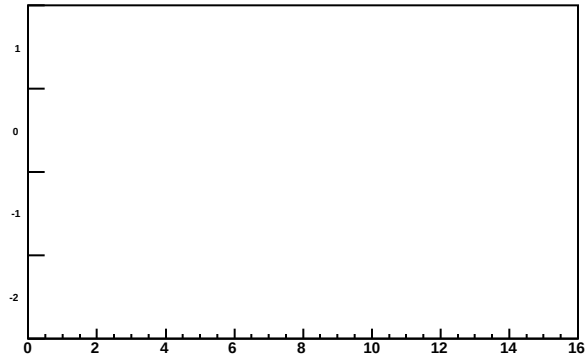

Entries 0


EM201 0-15 (ch3)
Entries 319984
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

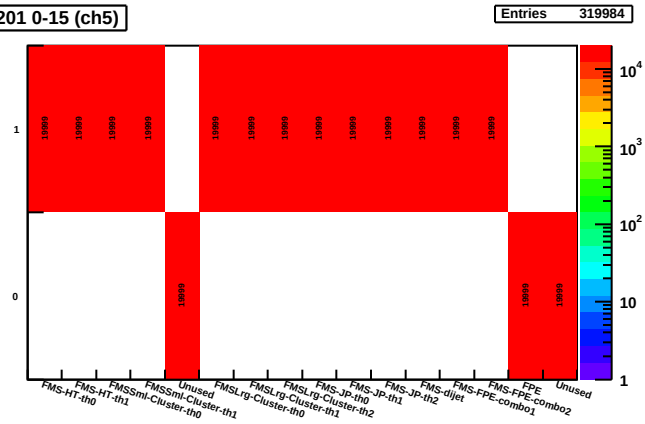

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

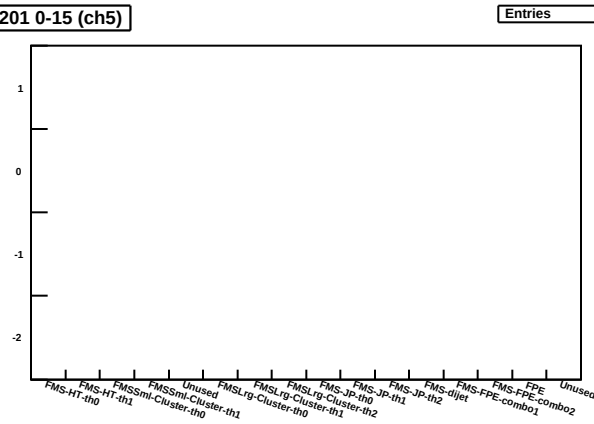




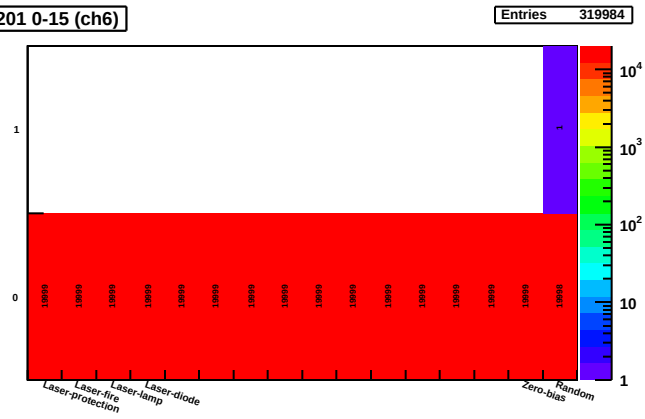
FP201 0-15 (ch5)

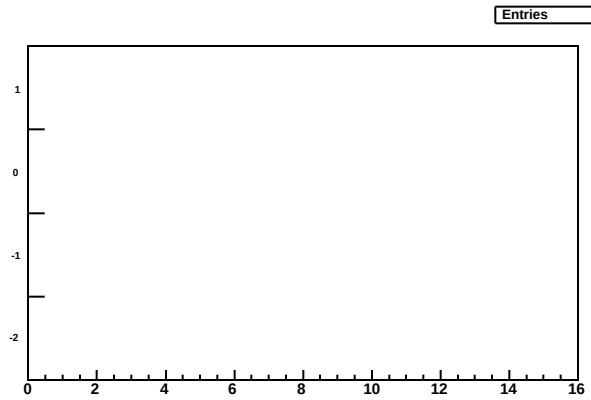
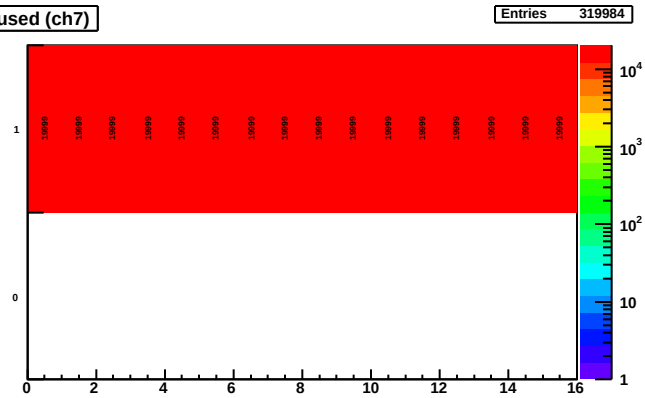
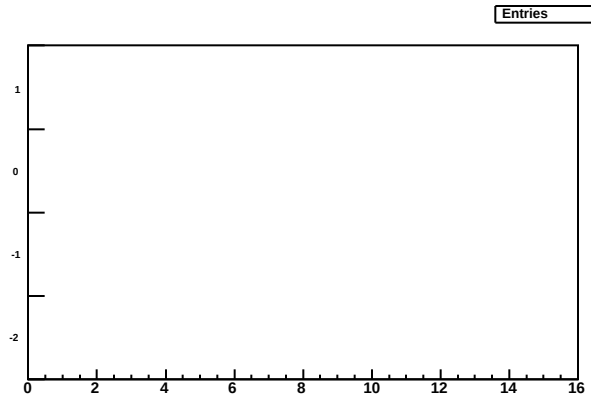


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)