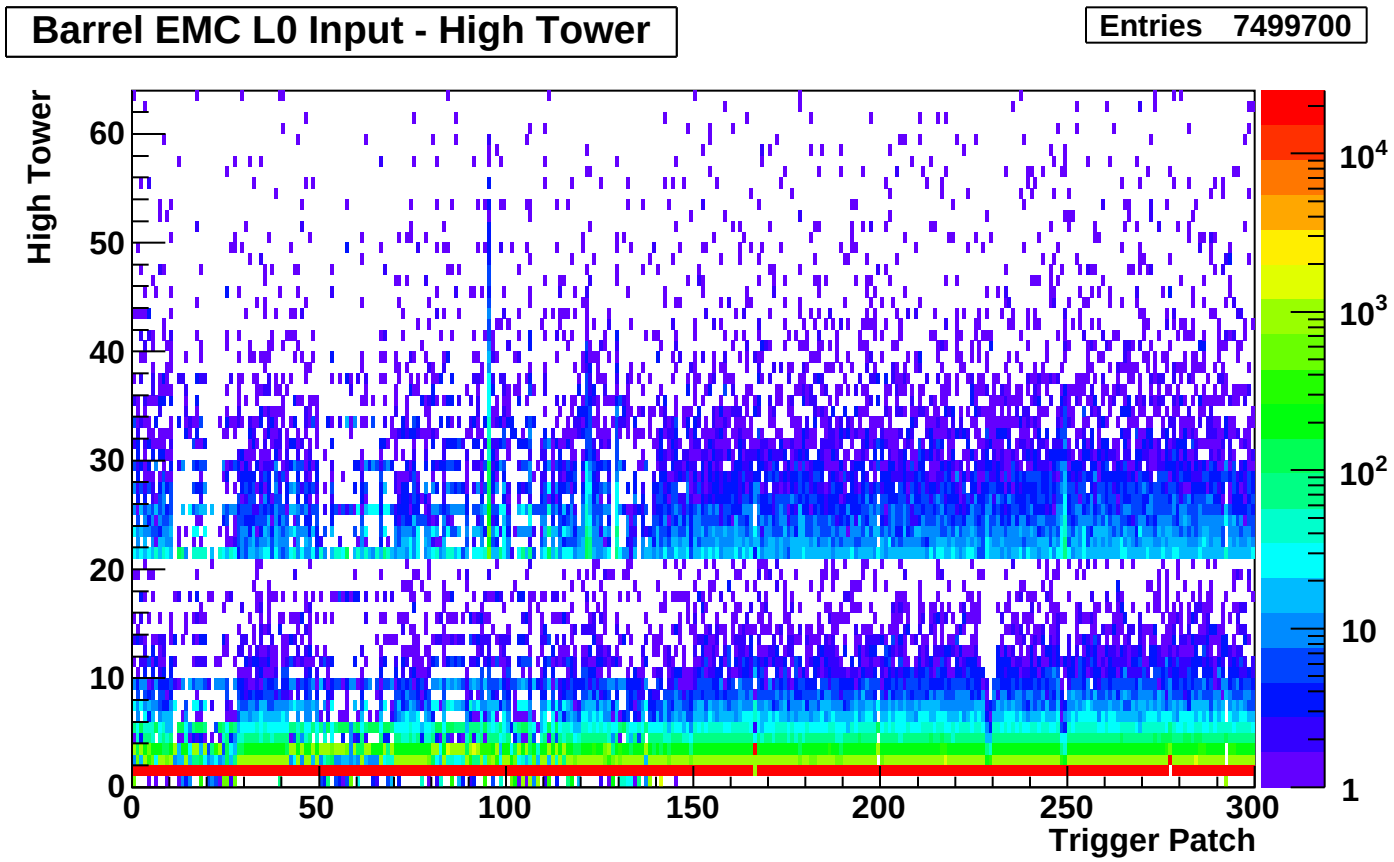
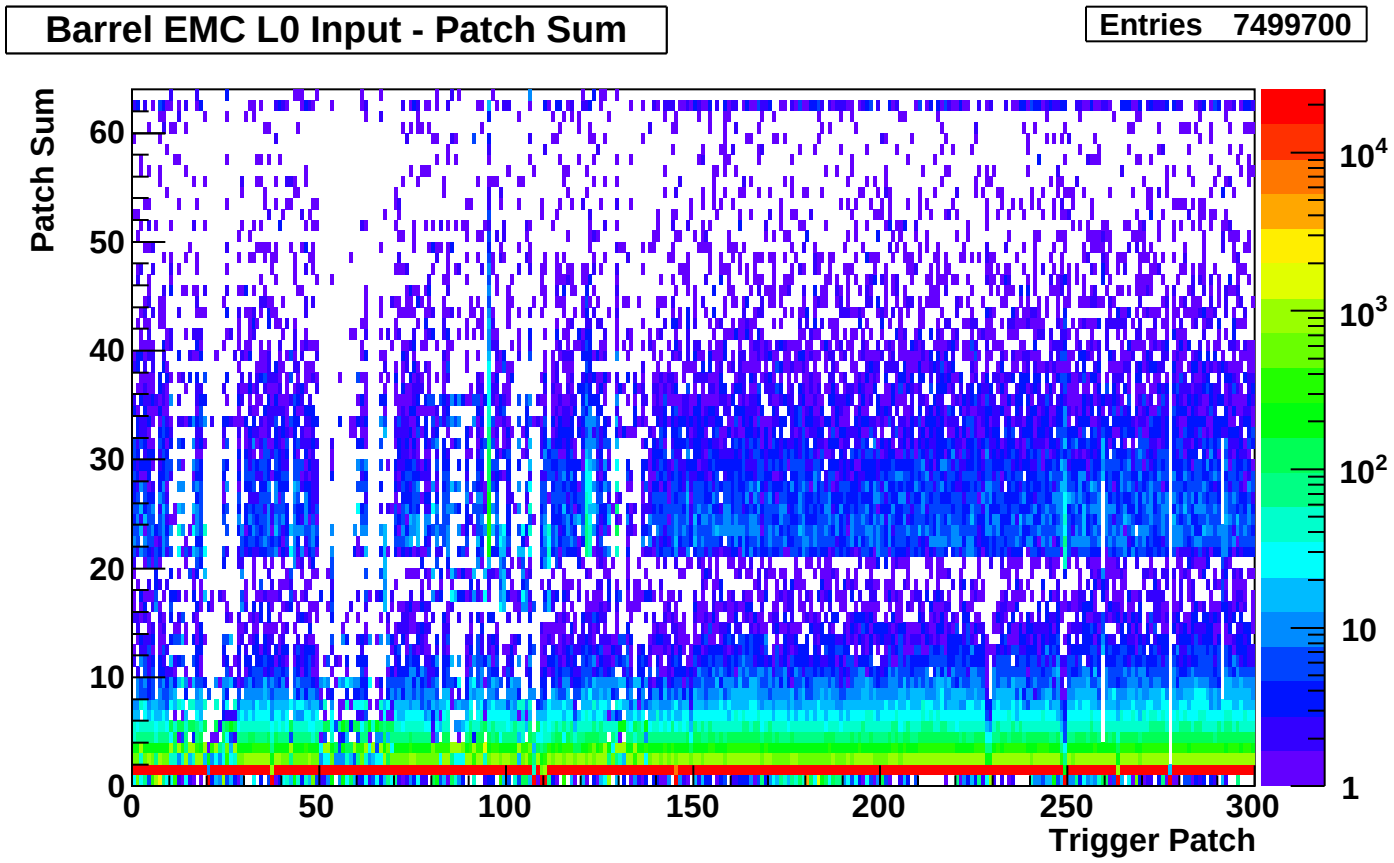
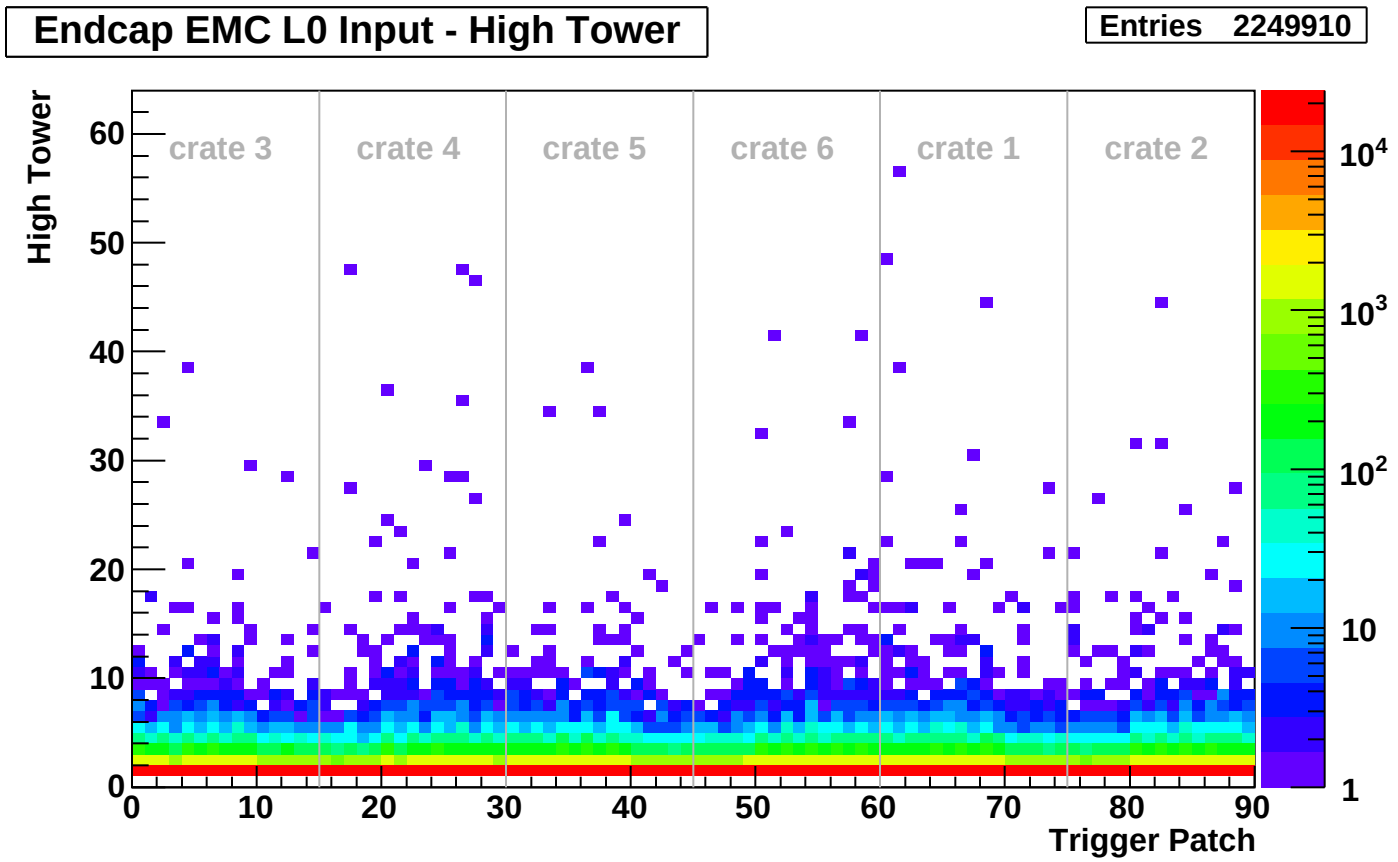
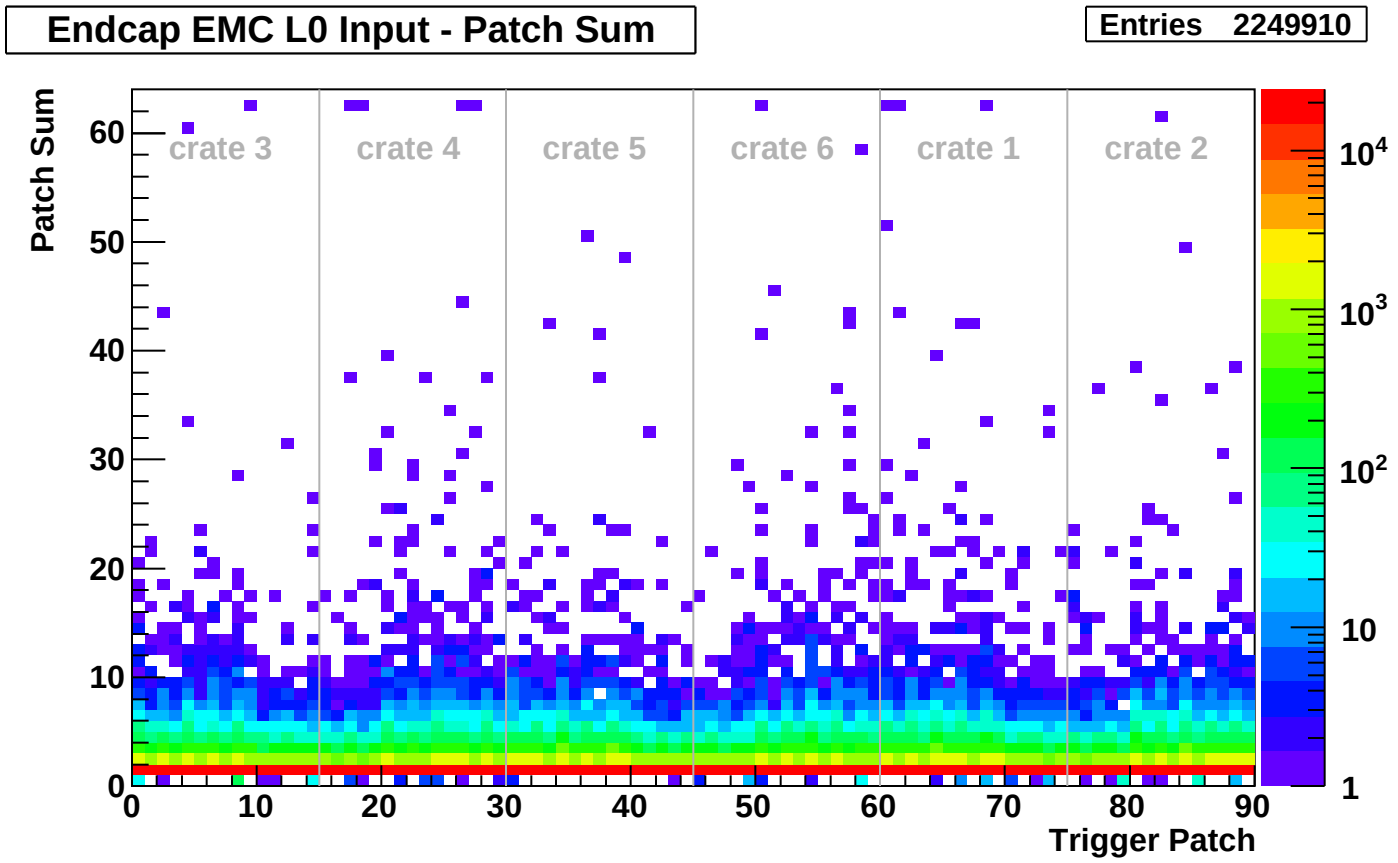
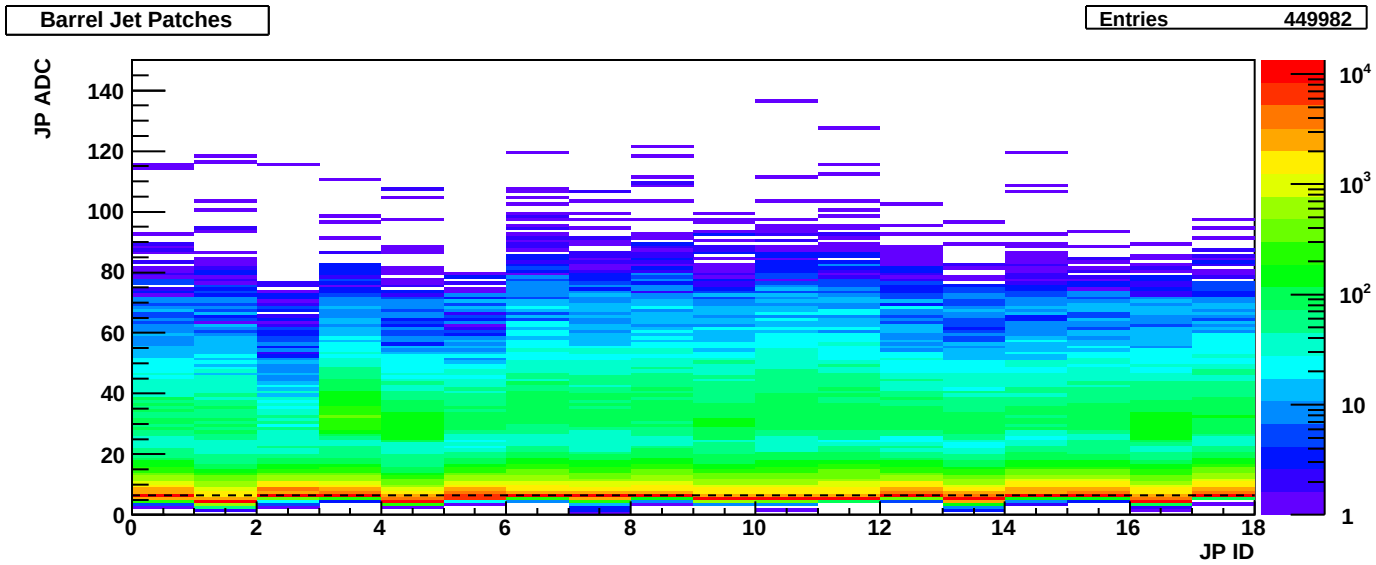
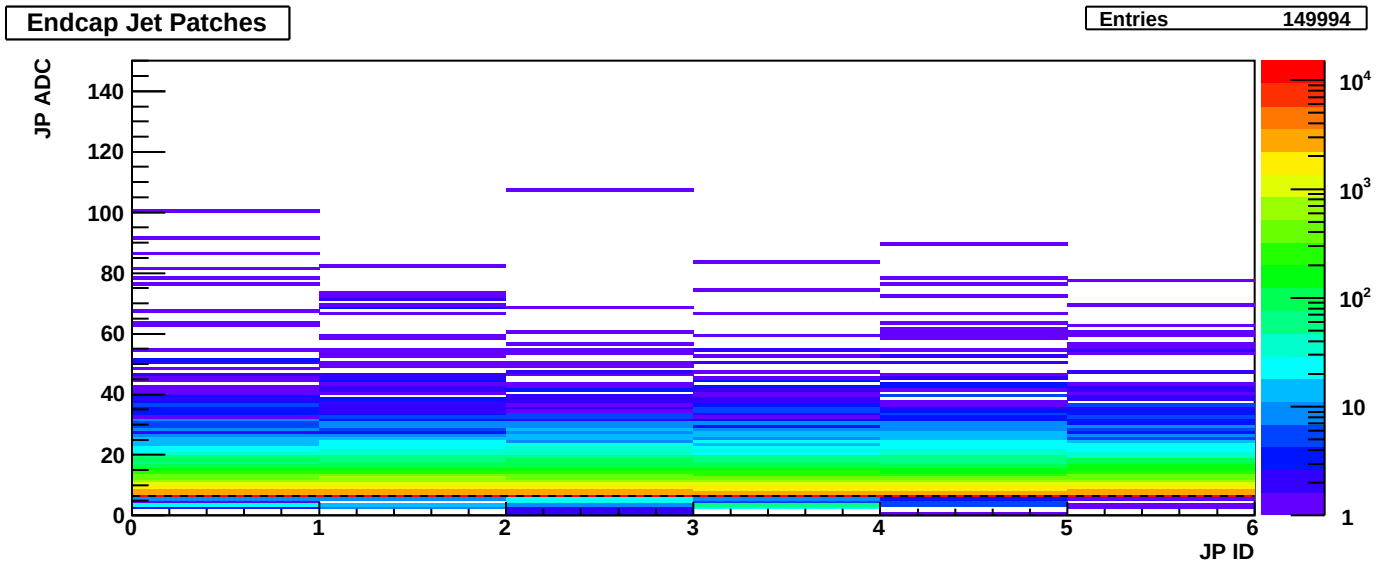

Barrel EMC L0 Input - High Tower
Entries 7499700
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

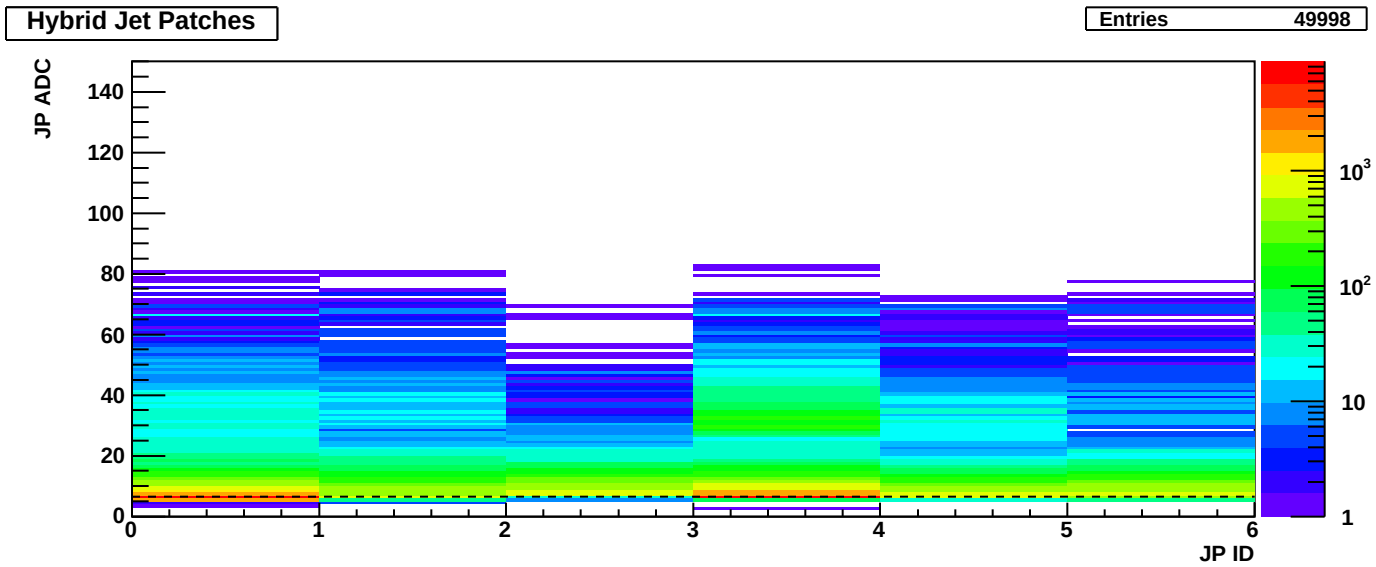

Barrel EMC L0 Input - Patch Sum
Entries 7499700
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

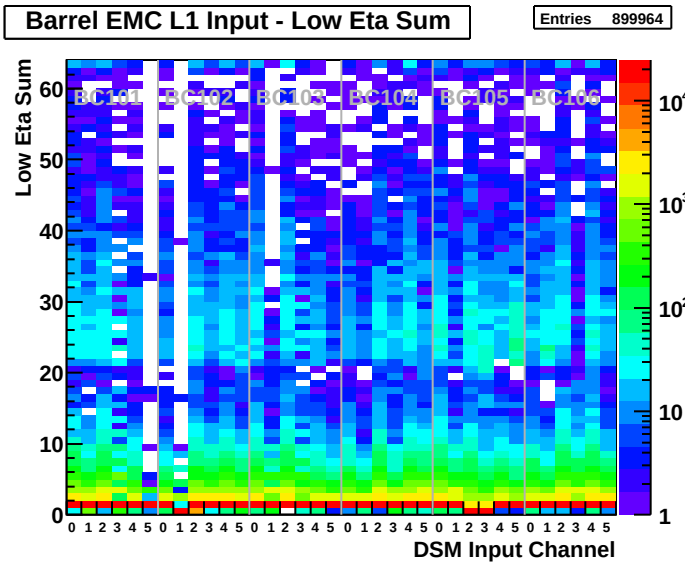

Endcap EMC L0 Input - High Tower
Entries 2249910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

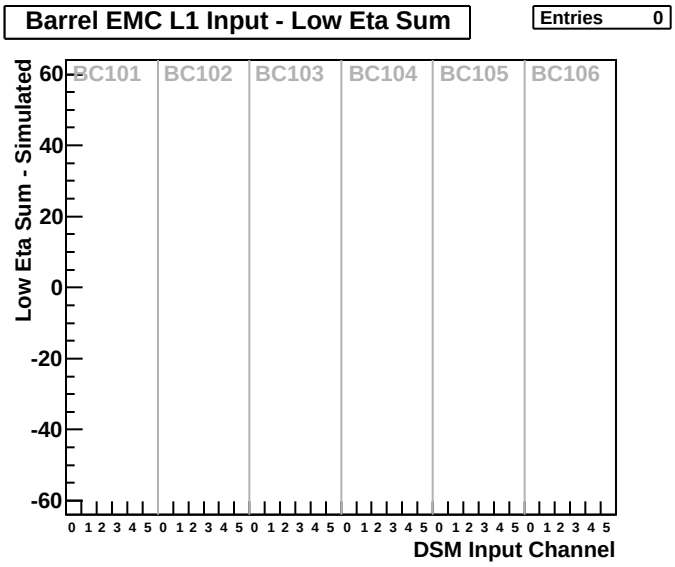

Endcap EMC L0 Input - Patch Sum
Entries 2249910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

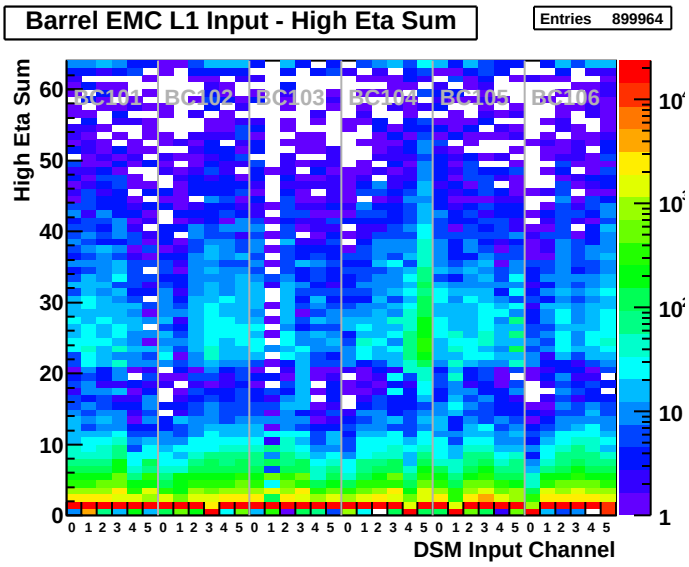

Barrel Jet Patches
Entries 449982
JP ADC
JP ID

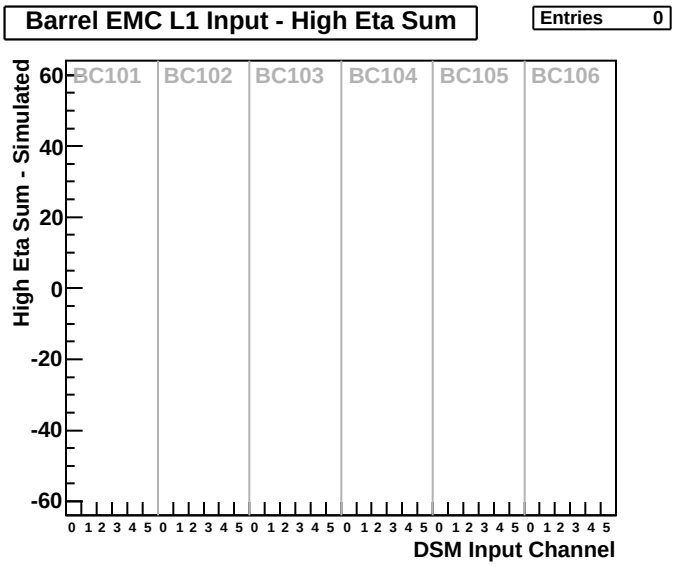

Endcap Jet Patches
Entries 149994
JP ADC
JP ID

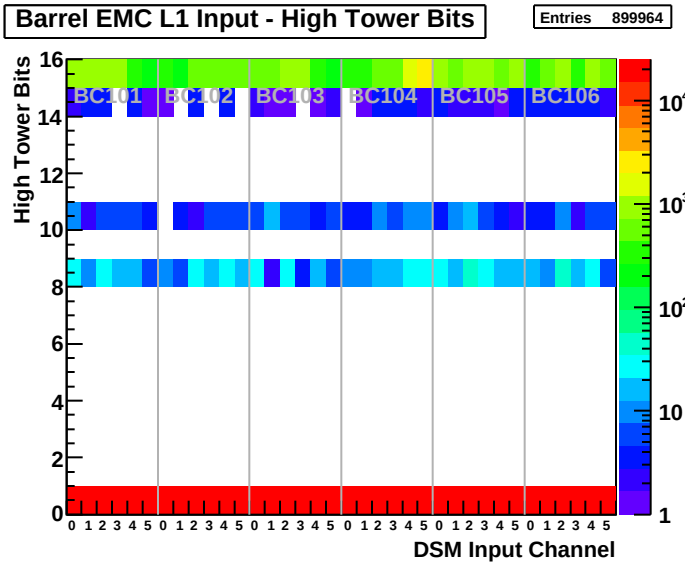

Hybrid Jet Patches
Entries 49998
JP ADC
JP ID

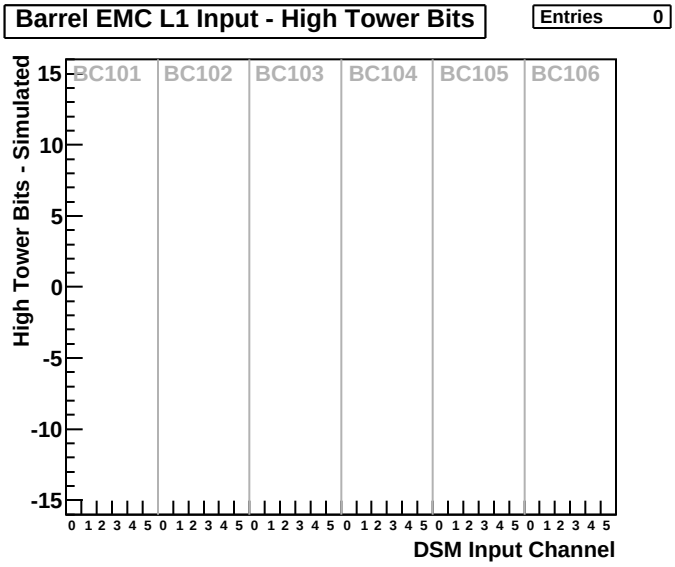

Barrel EMC L1 Input - Low Eta Sum
Entries 899964
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

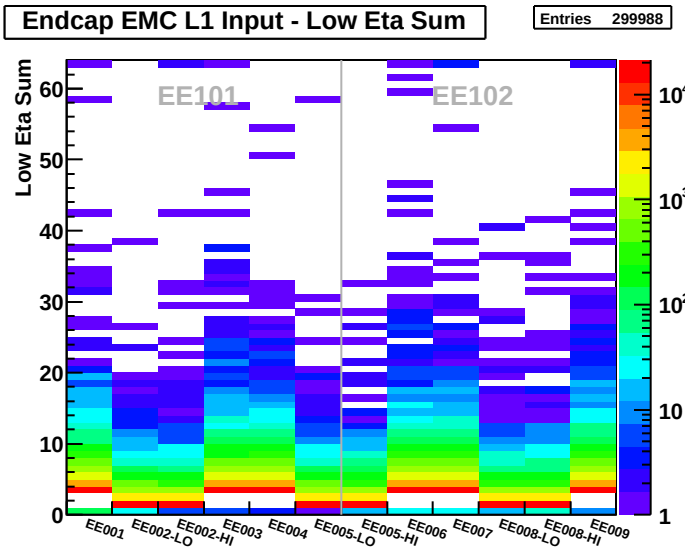

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

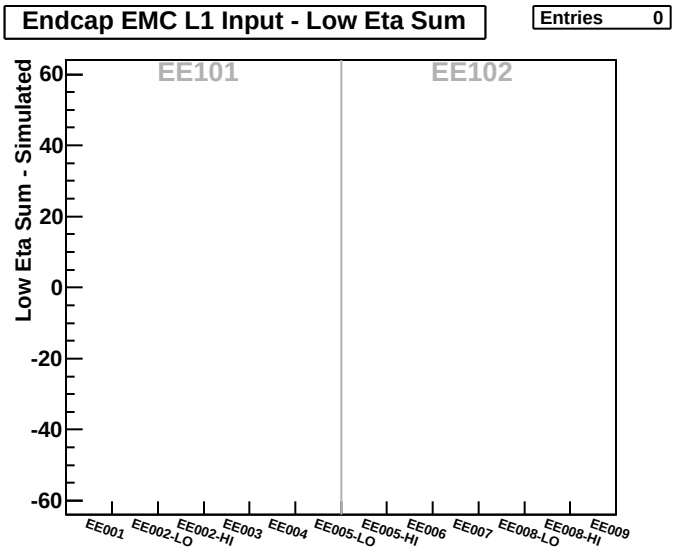

Barrel EMC L1 Input - High Eta Sum
Entries 899964
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

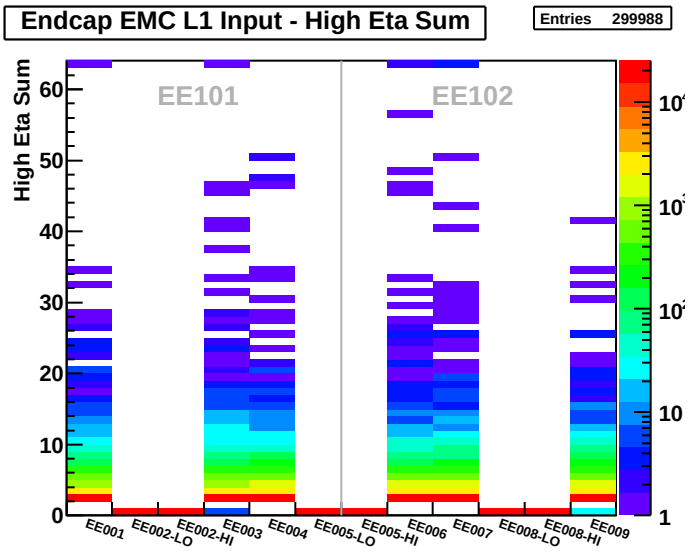

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

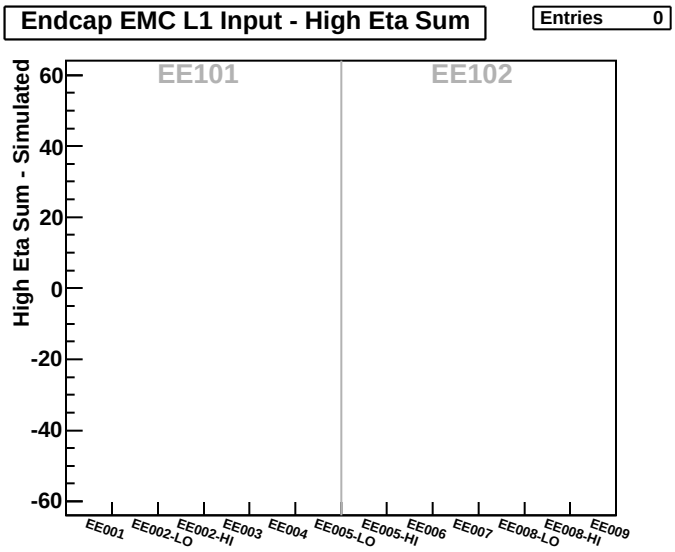

Barrel EMC L1 Input - High Tower Bits
Entries 899964
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

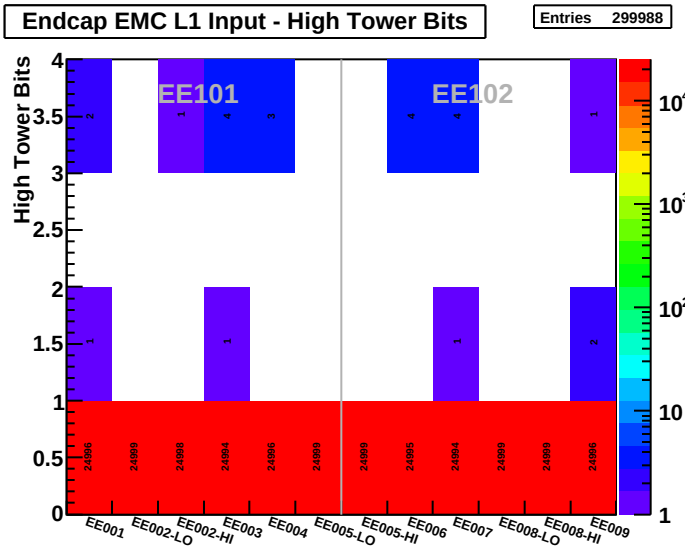

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

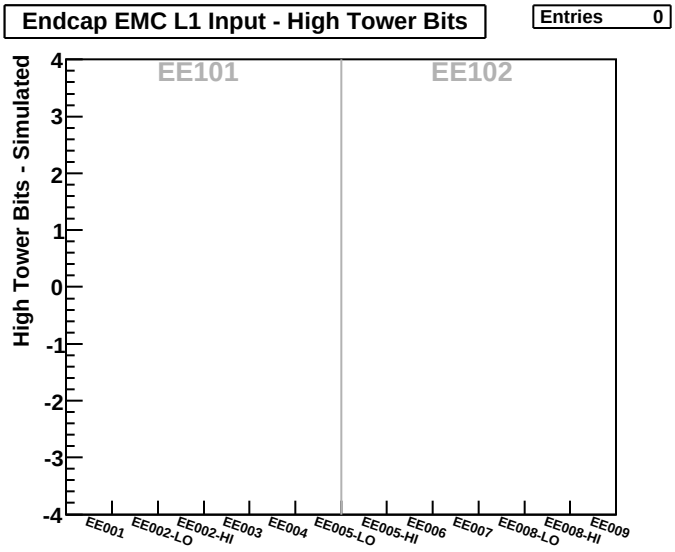

Endcap EMC L1 Input - Low Eta Sum
Entries 299988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

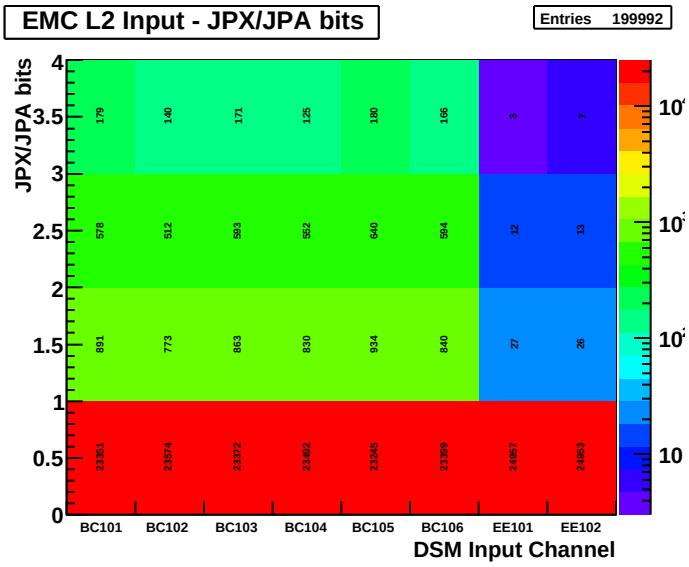

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

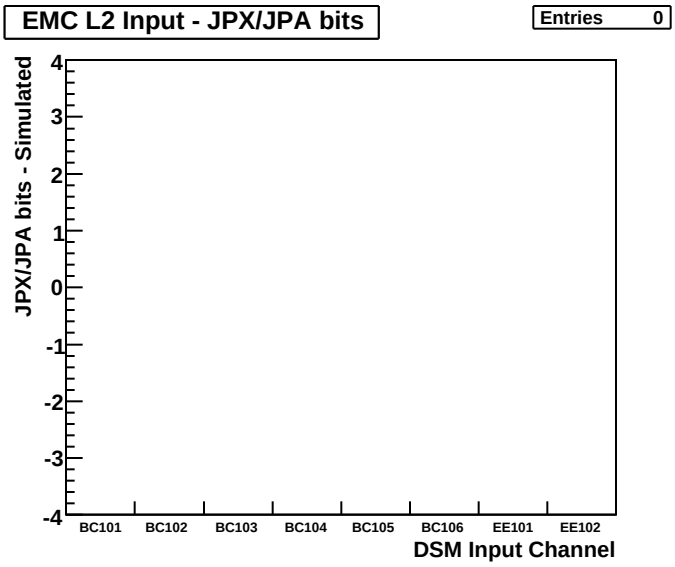

Endcap EMC L1 Input - High Eta Sum
Entries 299988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

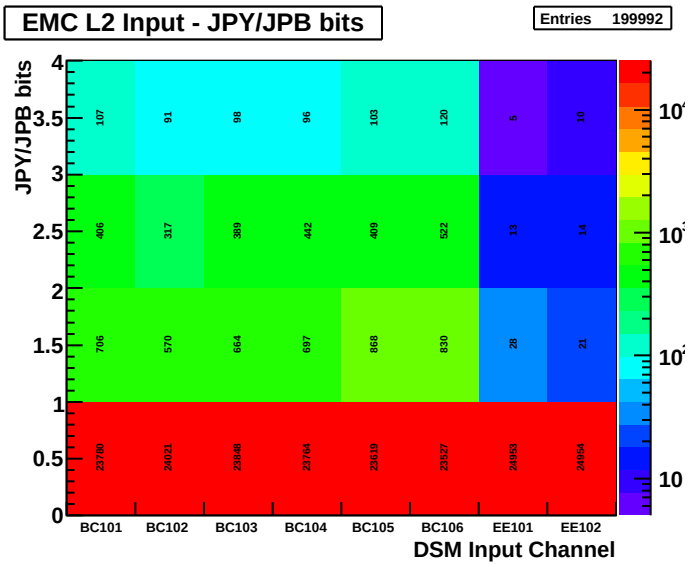

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

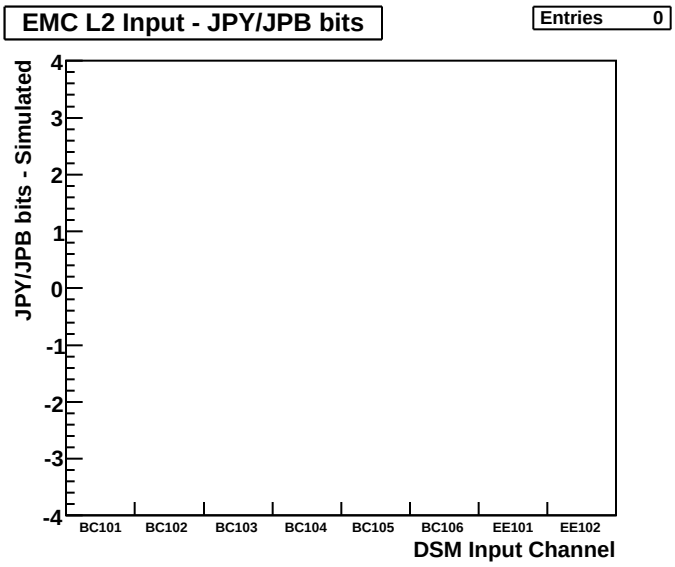

Endcap EMC L1 Input - High Tower Bits
Entries 299988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

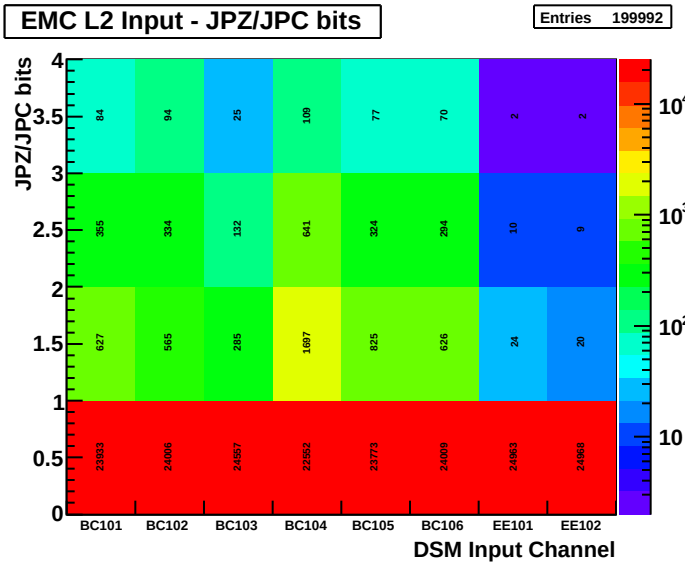

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

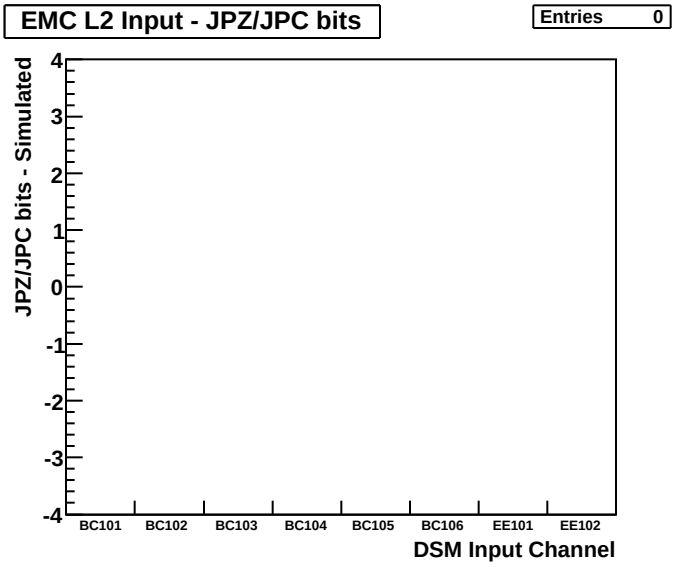

EMC L2 Input - JPX/JPA bits
Entries 199992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
179 140 171 125 180 166 3 7
578 512 593 552 640 594 12 13
891 773 863 830 934 840 27 26
23351 23574 23372 23492 23245 23399 24957 24953

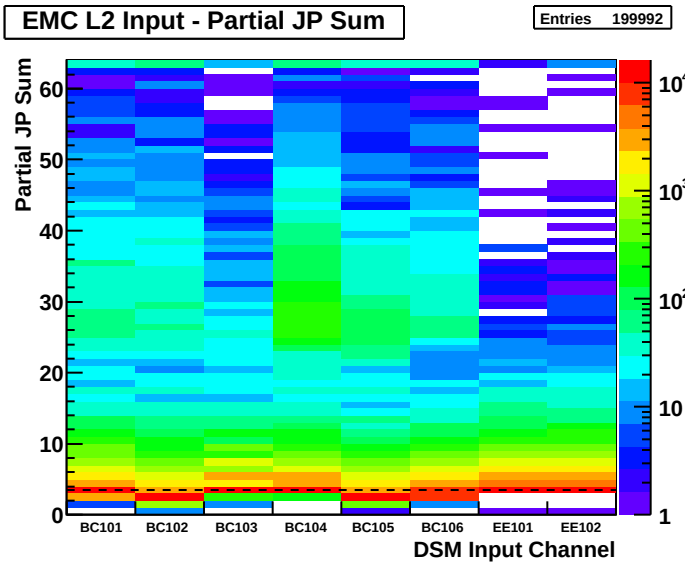

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

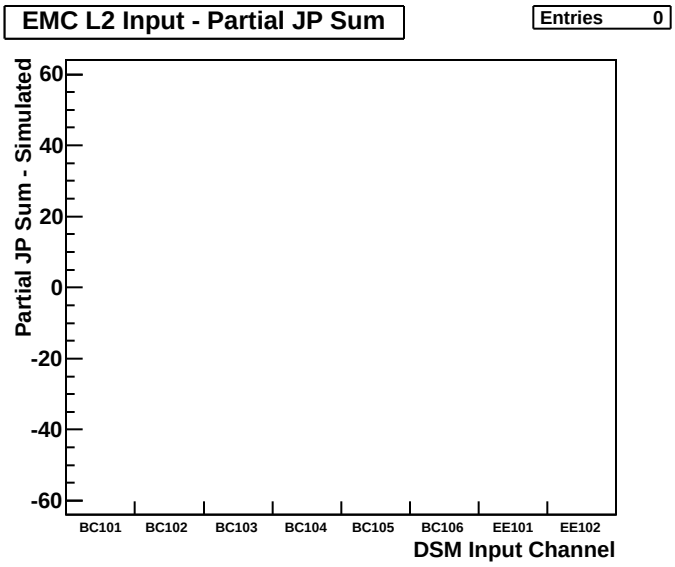

EMC L2 Input - JPY/JPB bits
Entries 199992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
107 91 98 96 103 120 5 10
406 317 389 442 409 522 13 14
706 570 664 697 868 830 28 21
23780 24021 23848 23764 23619 23527 24953 24954

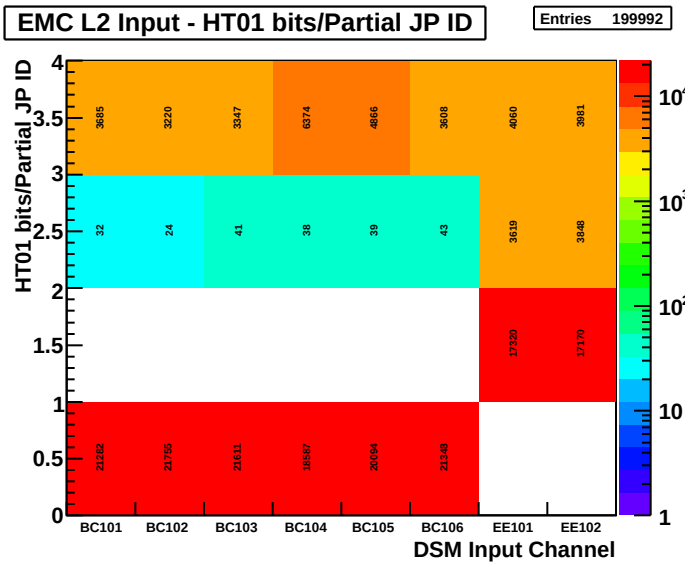

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

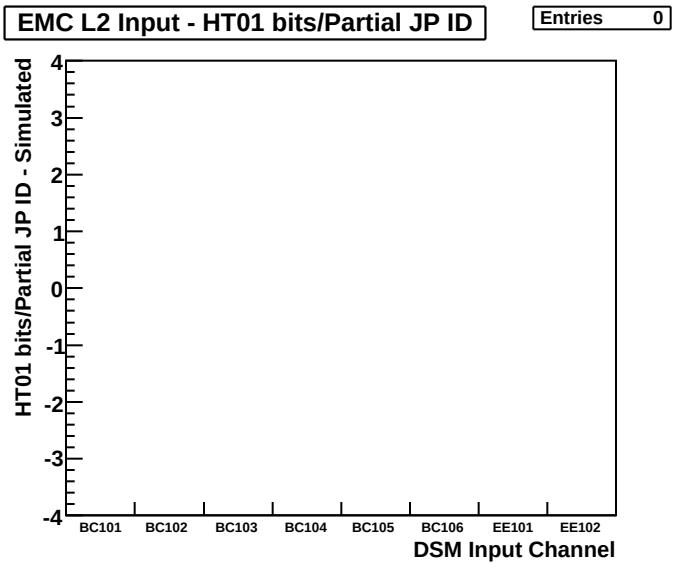

EMC L2 Input - JPZ/JPC bits
Entries 199992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
84 94 25 109 77 70 2 2
355 334 132 641 324 294 10 9
627 565 285 1697 825 626 24 20
23933 24006 24557 22552 23773 24009 24963 24958

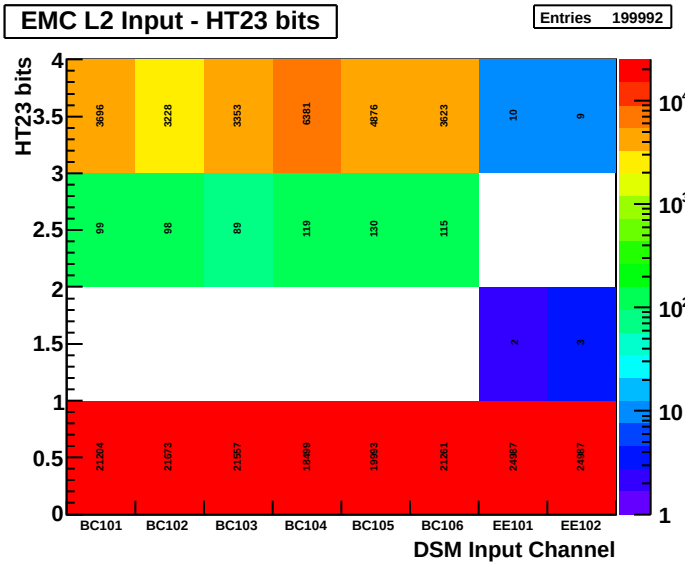

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

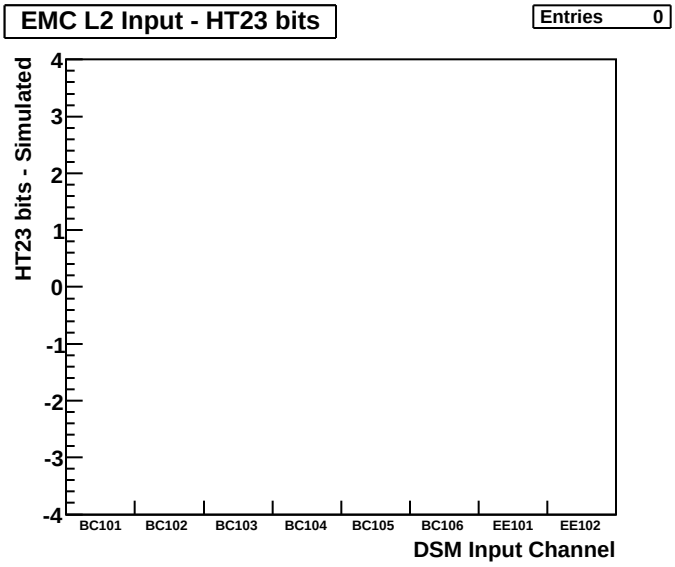

EMC L2 Input - Partial JP Sum
Entries 199992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

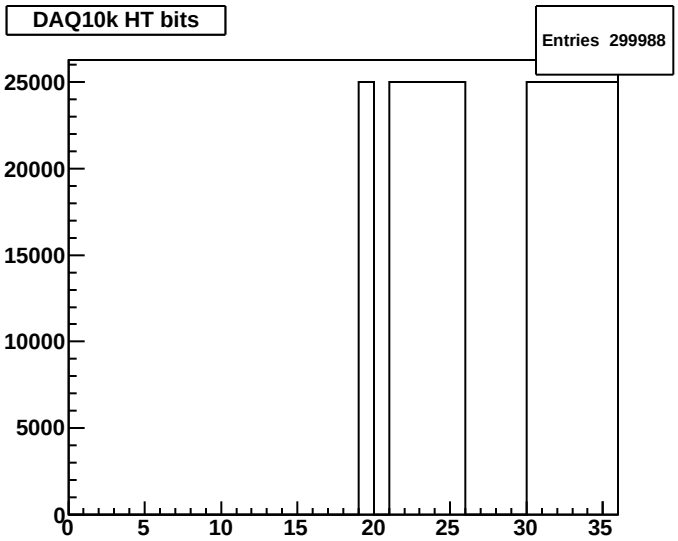

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

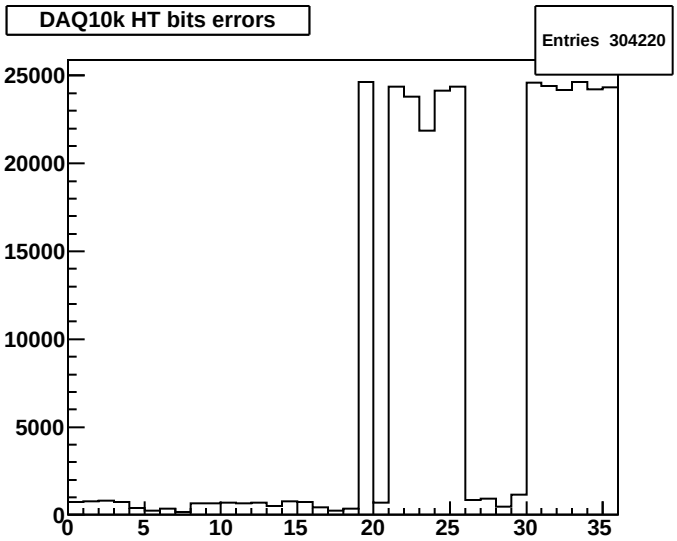

EMC L2 Input - HT01 bits/Partial JP ID
Entries 199992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

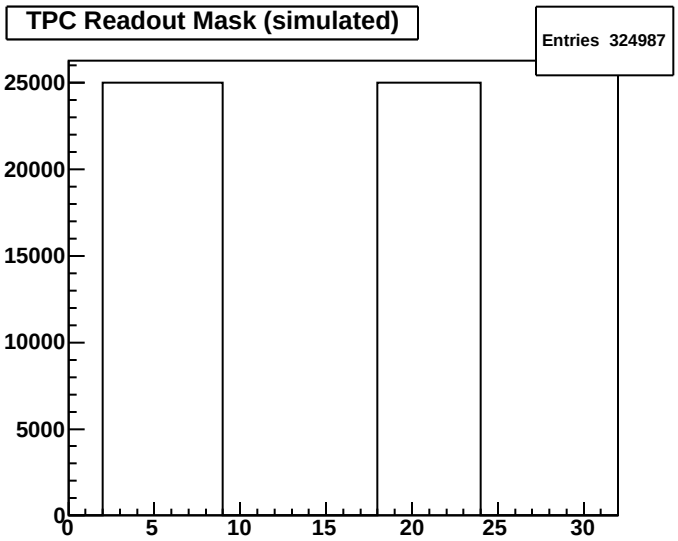

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

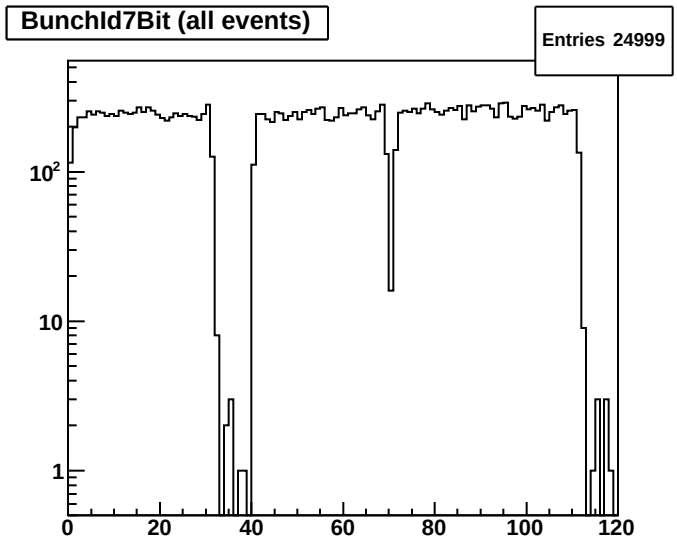

EMC L2 Input - HT23 bits
Entries 199992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

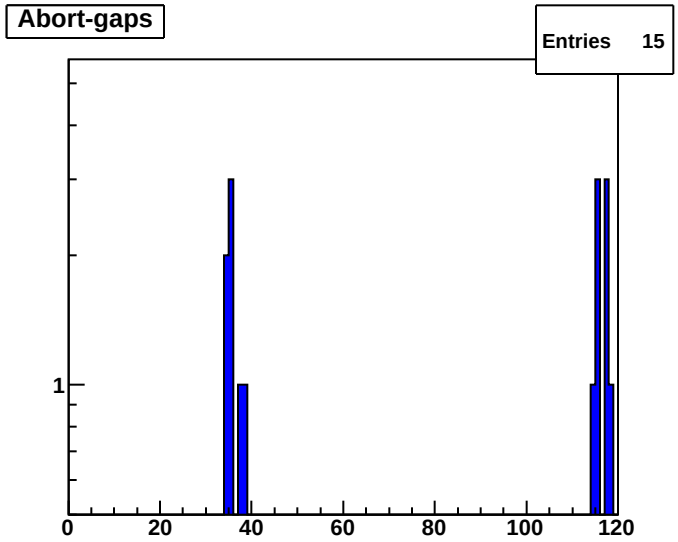

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

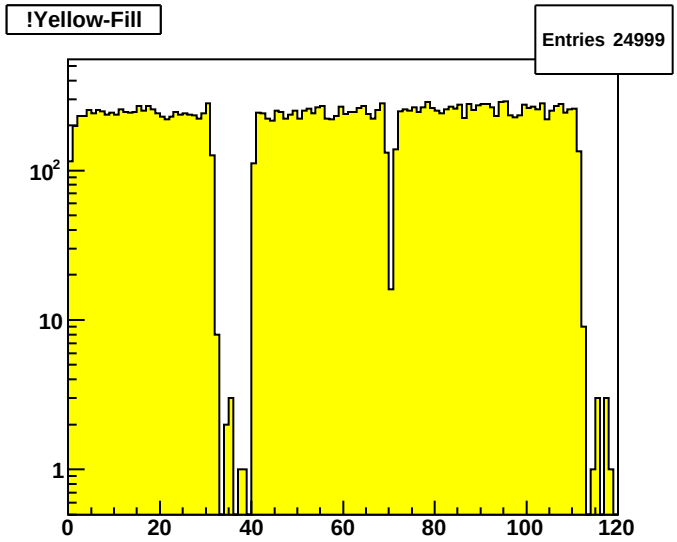

DAQ10k HT bits
Entries 299988
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

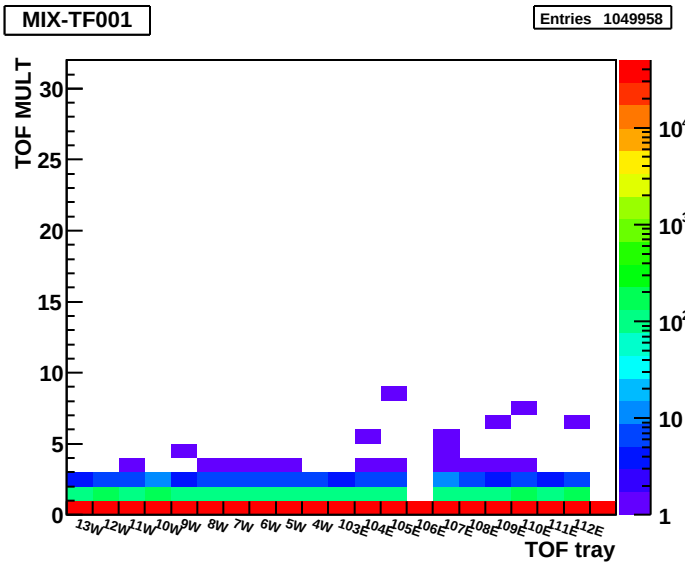

DAQ10k HT bits errors
Entries 304220
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

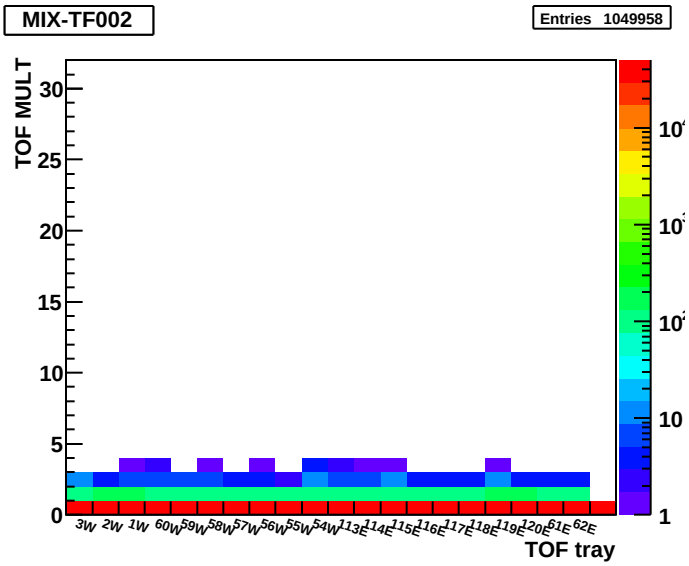

TPC Readout Mask (simulated)
Entries 324987
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

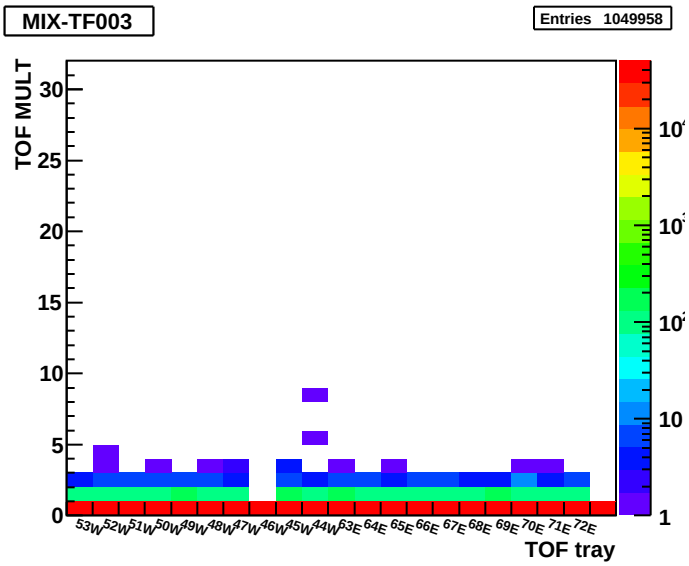

BunchId7Bit (all events)
Entries 24999
10^2
10
1
0 20 40 60 80 100 120

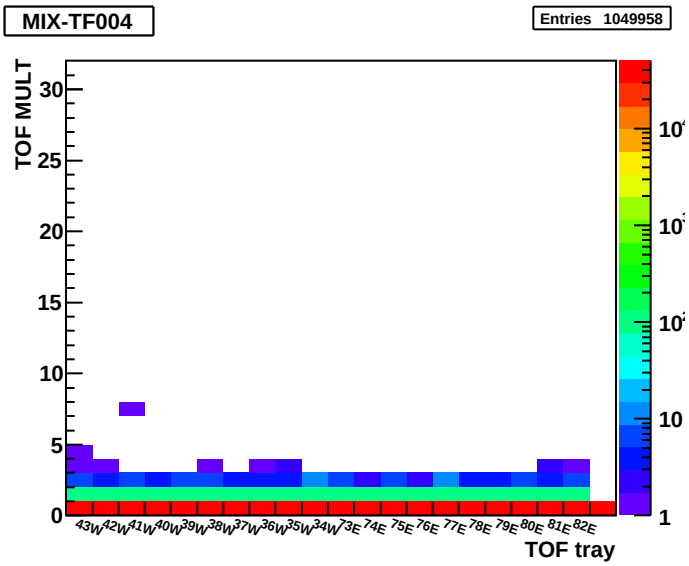

Abort-gaps
Entries 15
1
0 20 40 60 80 100 120

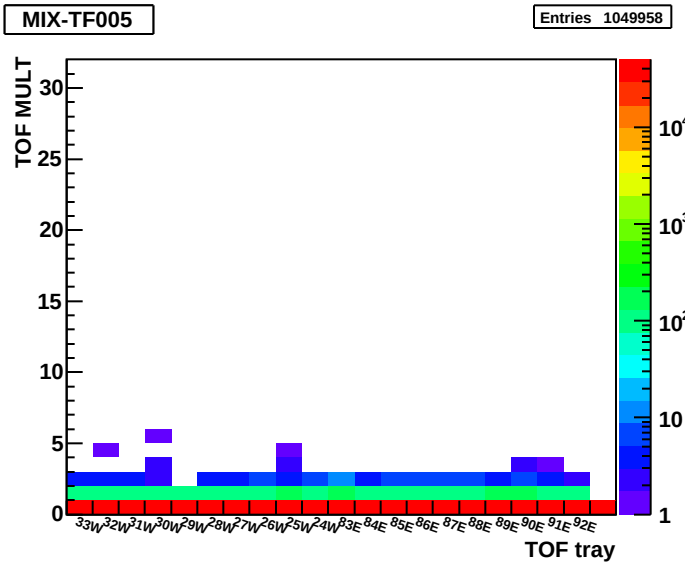

!Yellow-Fill
Entries 24999
10^2
10
1
0 20 40 60 80 100 120

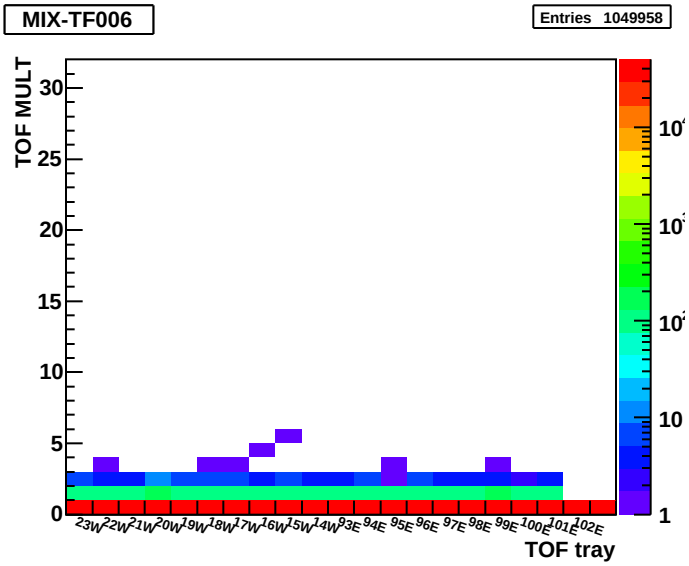

MIX-TF001
Entries 1049958
TOF MULT
TOF tray

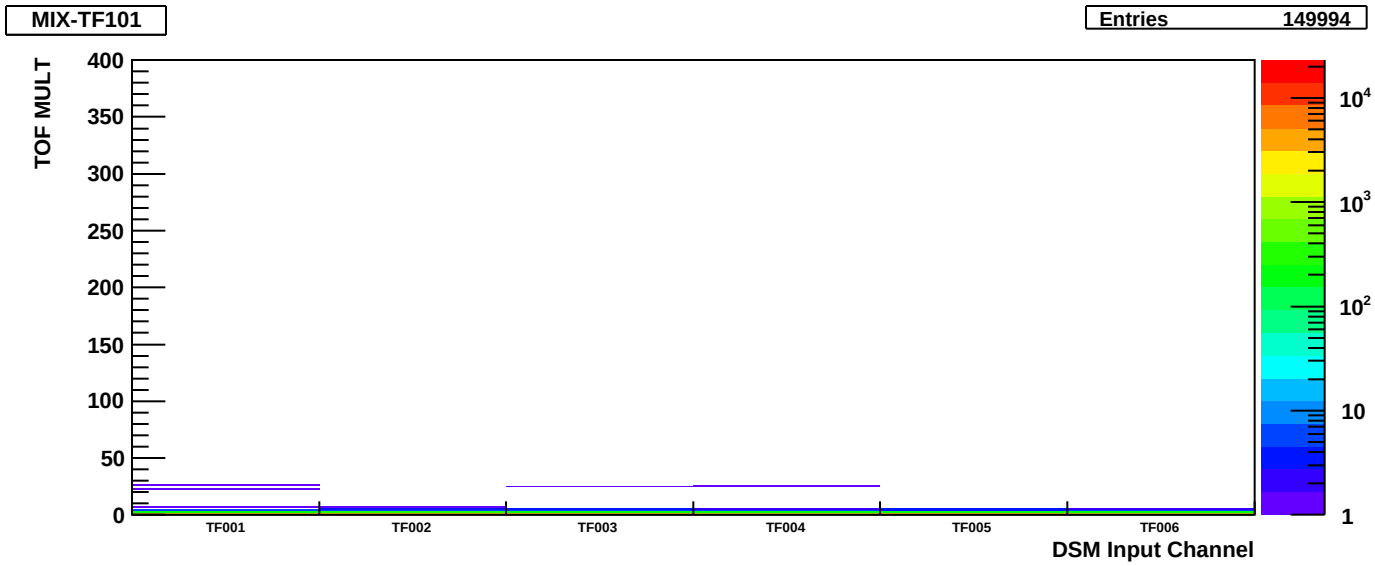

MIX-TF002
Entries 1049958
TOF MULT
TOF tray

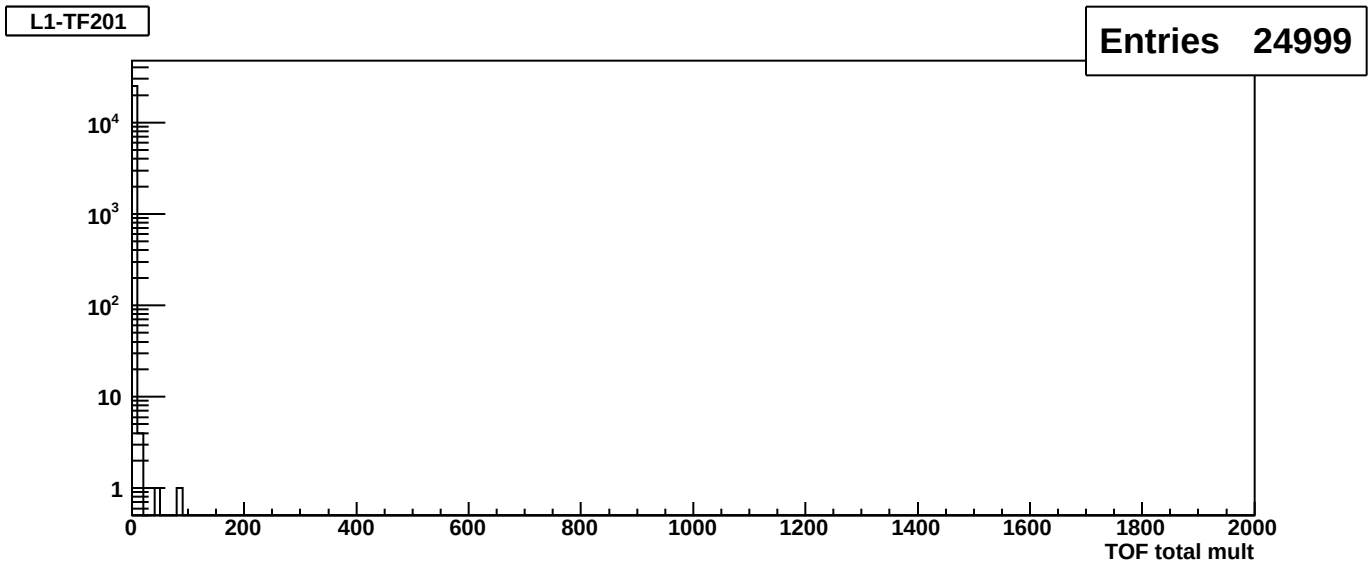

MIX-TF003
Entries 1049958
TOF MULT
TOF tray

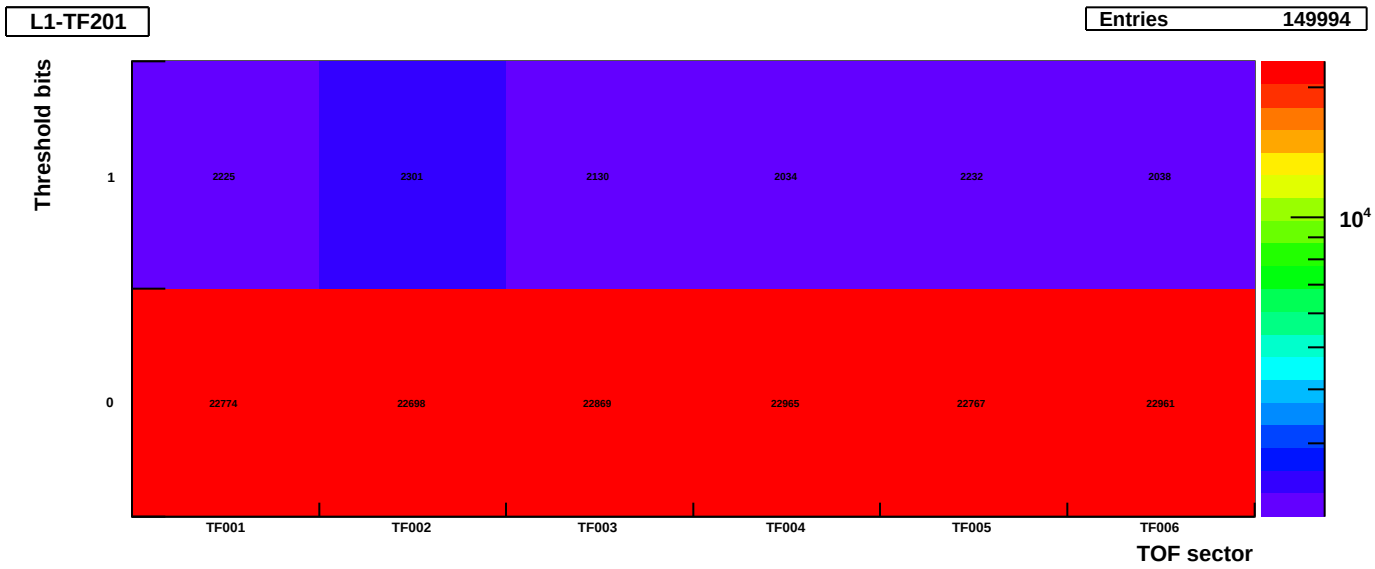

MIX-TF004
Entries 1049958
TOF MULT
TOF tray

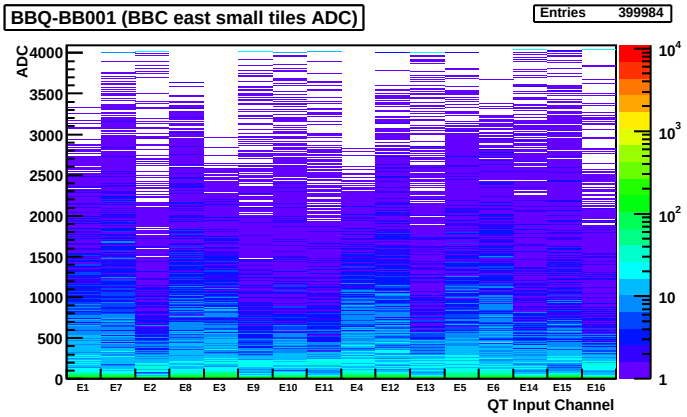

MIX-TF005
Entries 1049958
TOF MULT
TOF tray

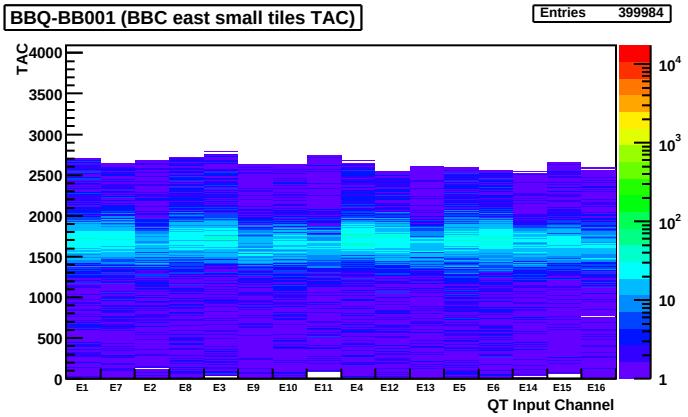

MIX-TF006
Entries 1049958
TOF MULT
TOF tray

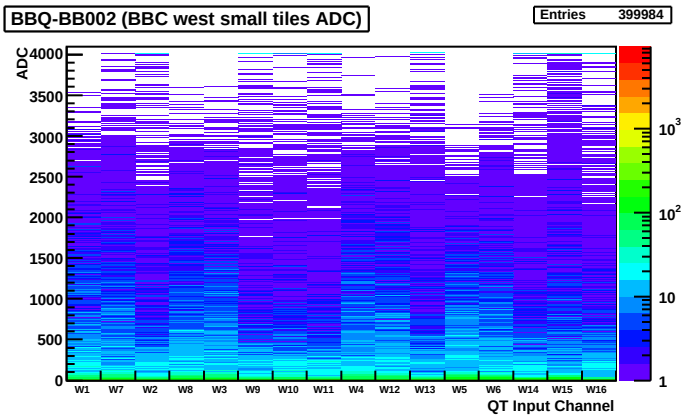

MIX-TF101
Entries 149994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

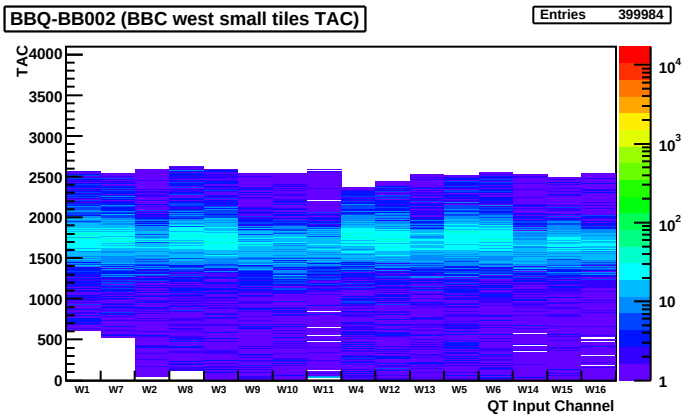

L1-TF201
Entries 24999
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

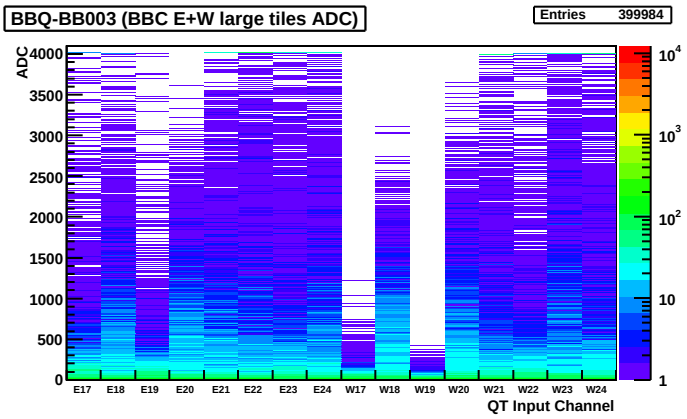

L1-TF201
Entries 149994
Threshold bits
1
0
2225
2301
2130
2034
2232
2038
22774
22698
22869
22965
22767
22961
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

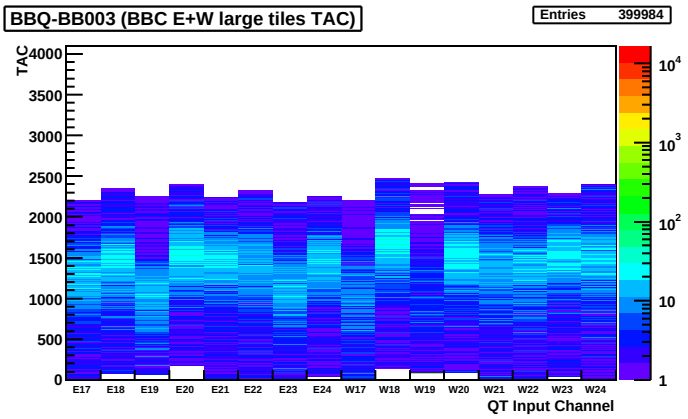

BBQ-BB001 (BBC east small tiles ADC)
Entries 399984
ADC
QT Input Channel

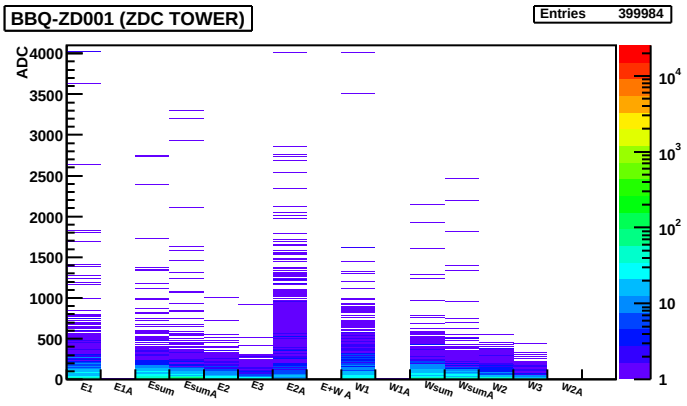

BBQ-BB001 (BBC east small tiles TAC)
Entries 399984
TAC
QT Input Channel

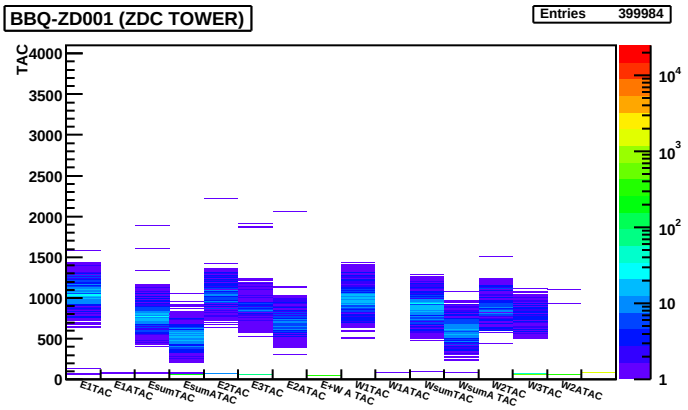

BBQ-BB002 (BBC west small tiles ADC)
Entries 399984
ADC
QT Input Channel

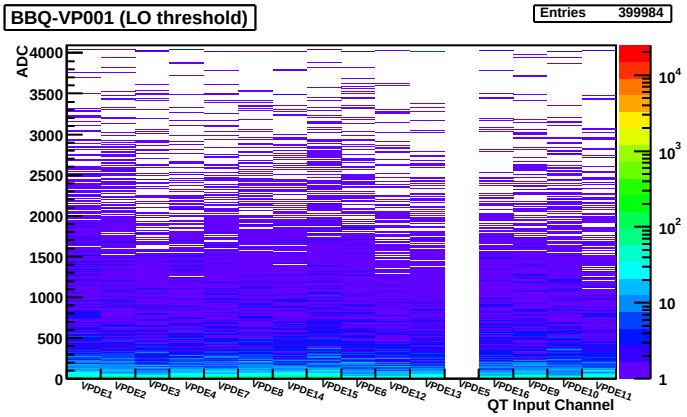

BBQ-BB002 (BBC west small tiles TAC)
Entries 399984
TAC
QT Input Channel

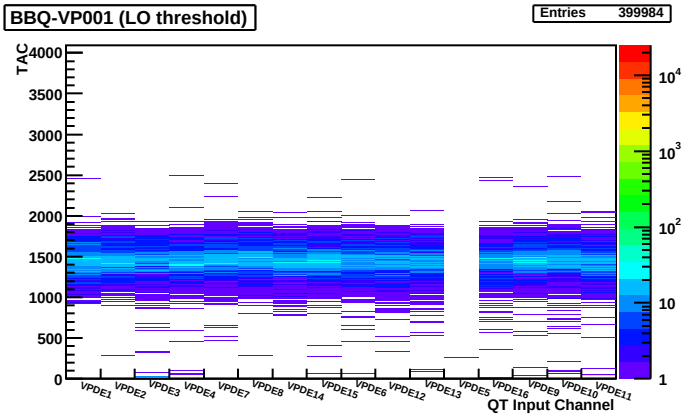

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 399984
ADC
QT Input Channel

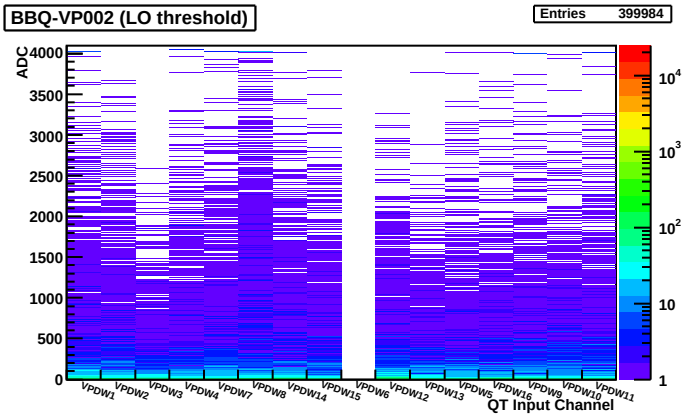

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 399984
TAC
QT Input Channel

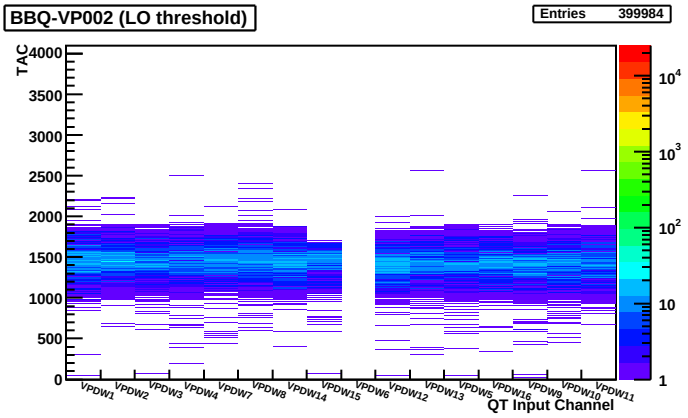

BBQ-ZD001 (ZDC TOWER)
Entries 399984
ADC

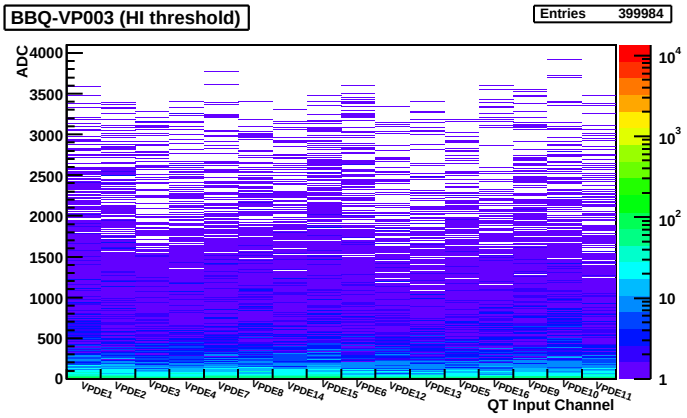

BBQ-ZD001 (ZDC TOWER)
Entries 399984
TAC

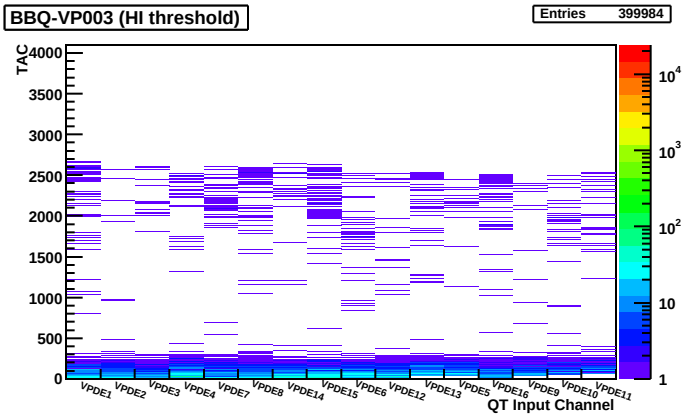

BBQ-VP001 (LO threshold)
Entries 399984
ADC
QT Input Channel

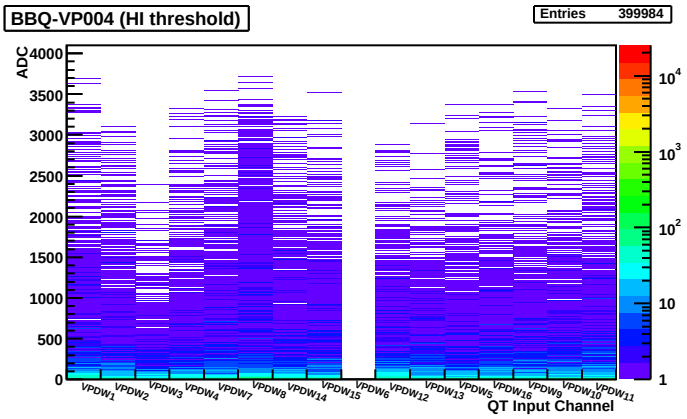

BBQ-VP001 (LO threshold)
Entries 399984
TAC
QT Input Channel

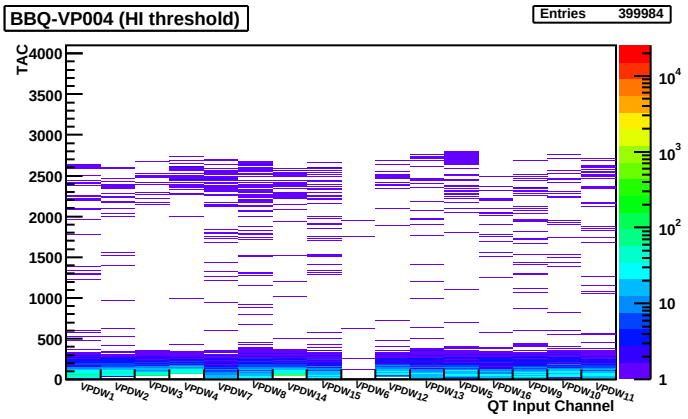

BBQ-VP002 (LO threshold)
Entries 399984
ADC
QT Input Channel

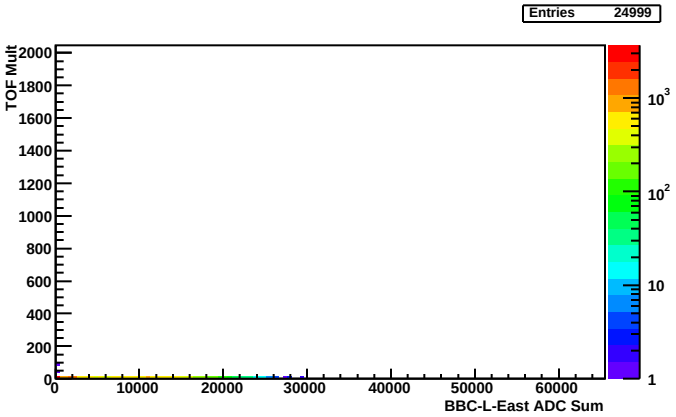

BBQ-VP002 (LO threshold)
Entries 399984
TAC
QT Input Channel

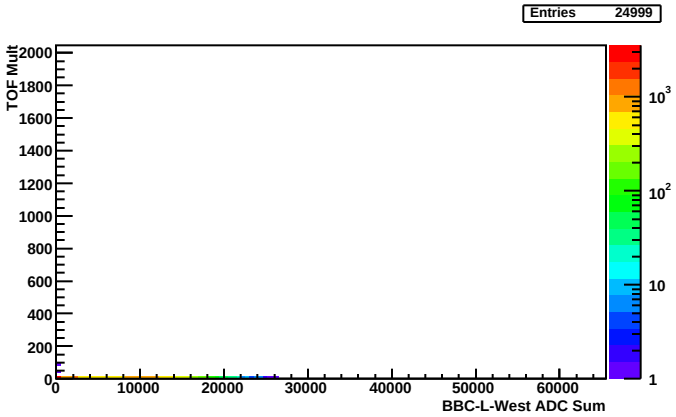

BBQ-VP003 (HI threshold)
Entries 399984
ADC
QT Input Channel

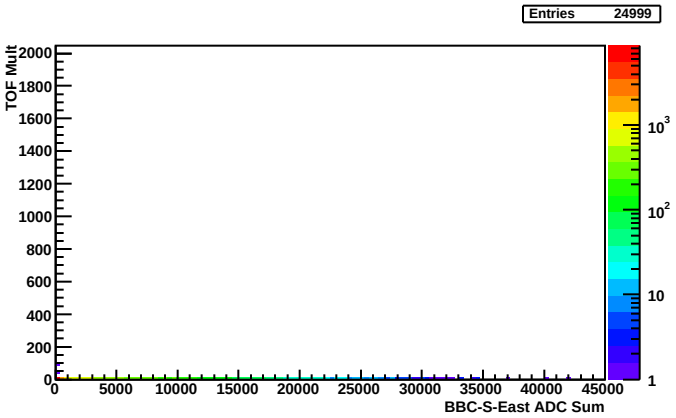

BBQ-VP003 (HI threshold)
Entries 399984
TAC
QT Input Channel

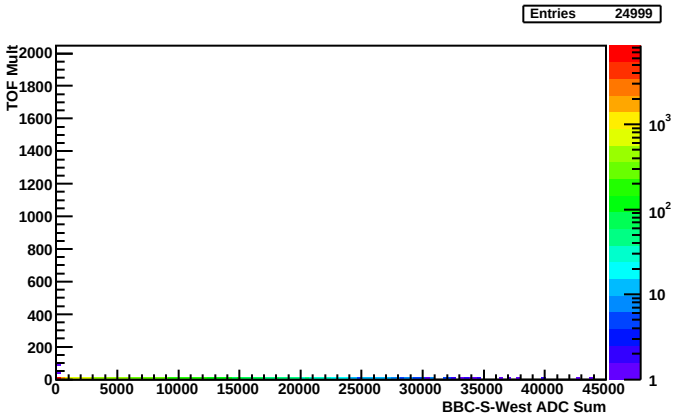

BBQ-VP004 (HI threshold)
Entries 399984
ADC
QT Input Channel

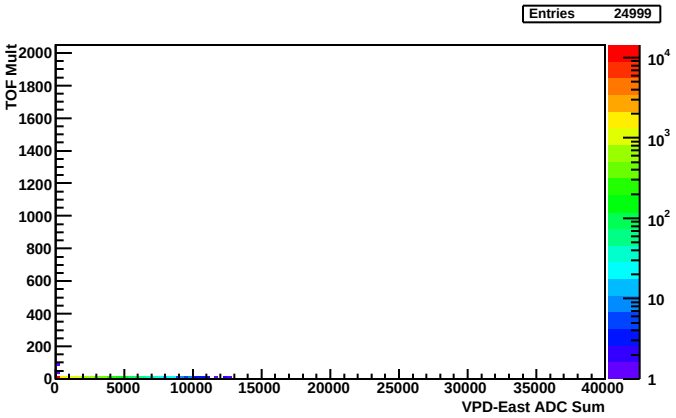

BBQ-VP004 (HI threshold)
Entries 399984
TAC
QT Input Channel

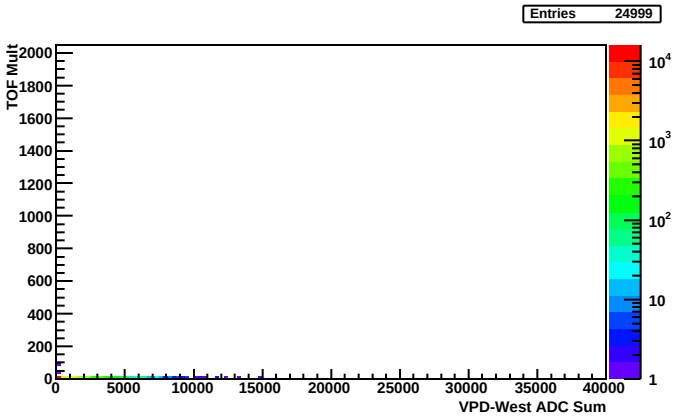

Entries 24999
TOF Mult
BBC-L-East ADC Sum

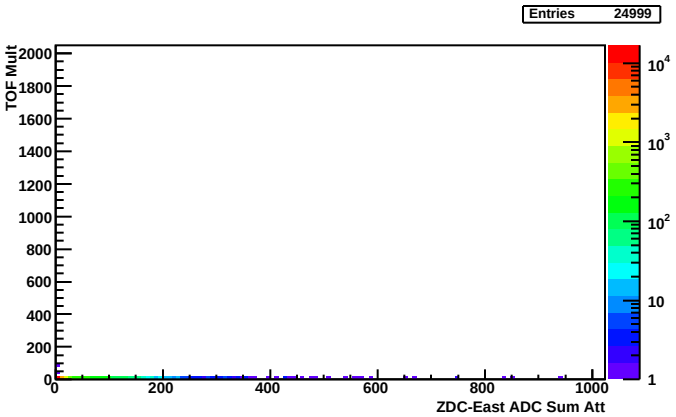

Entries 24999
TOF Mult
BBC-L-West ADC Sum

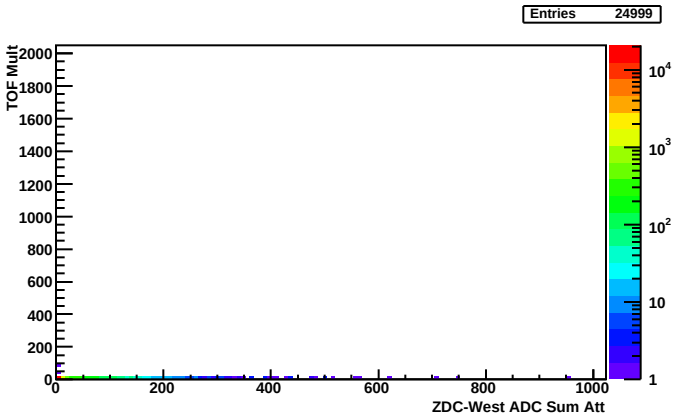

Entries 24999
TOF Mult
BBC-S-East ADC Sum

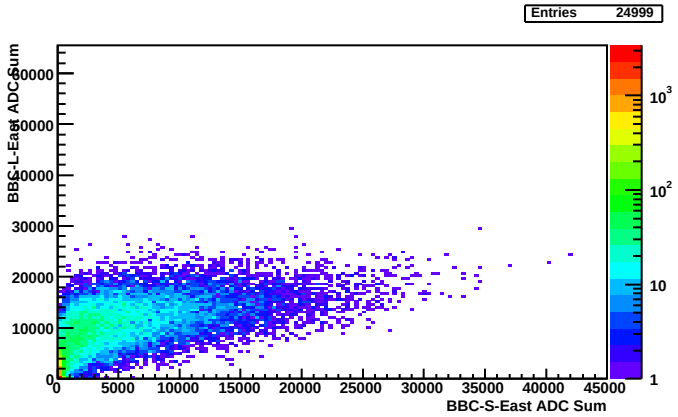

Entries 24999
TOF Mult
BBC-S-West ADC Sum

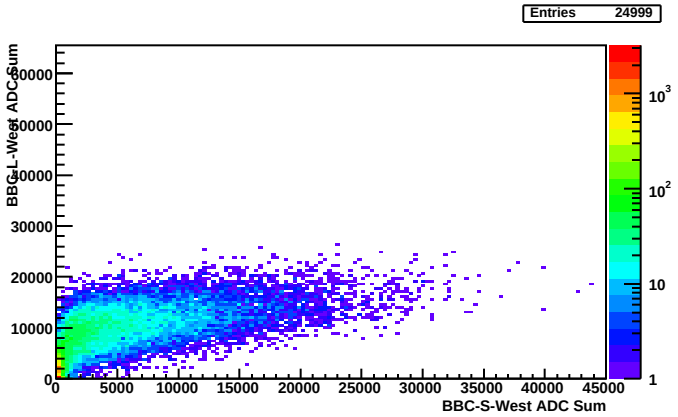

Entries 24999
TOF Mult
VPD-East ADC Sum

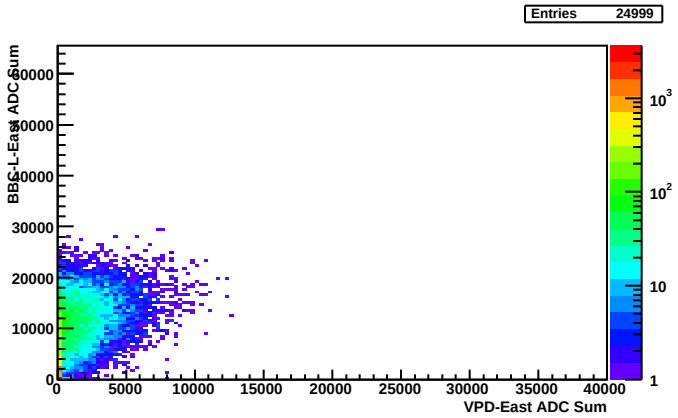

Entries 24999
TOF Mult
VPD-West ADC Sum

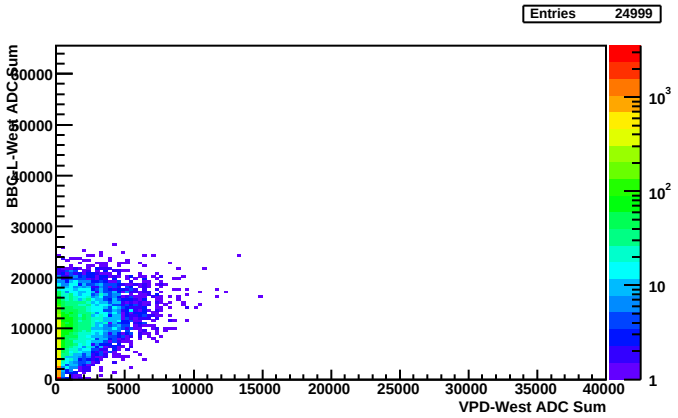

Entries 24999
TOF Mult
ZDC-East ADC Sum Att

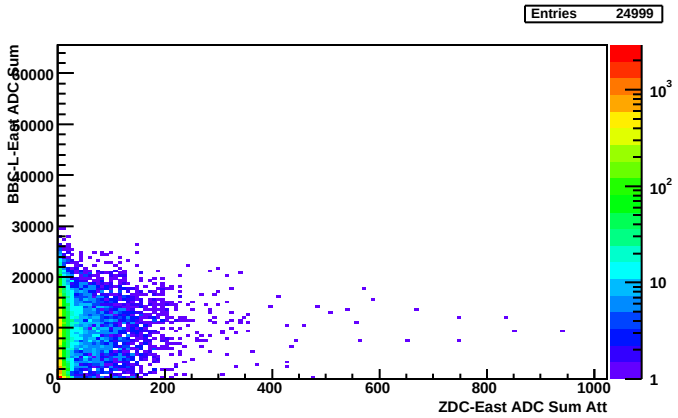

Entries 24999
TOF Mult
ZDC-West ADC Sum Att

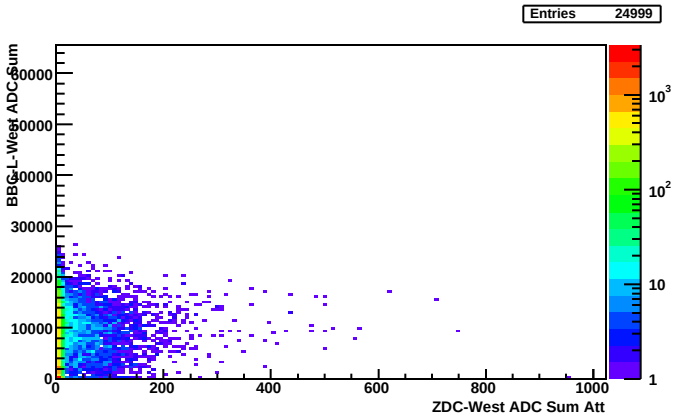

Entries 24999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

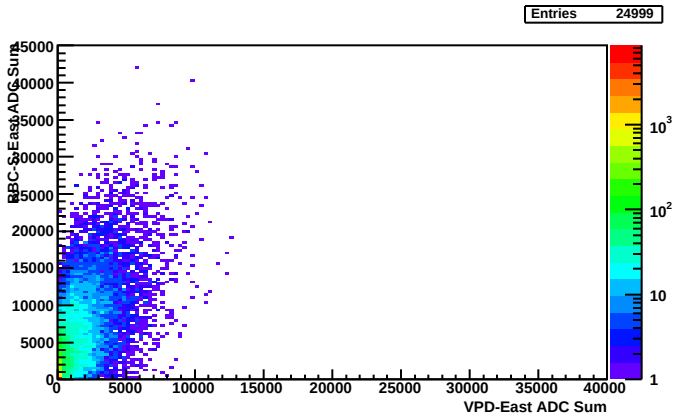

Entries 24999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

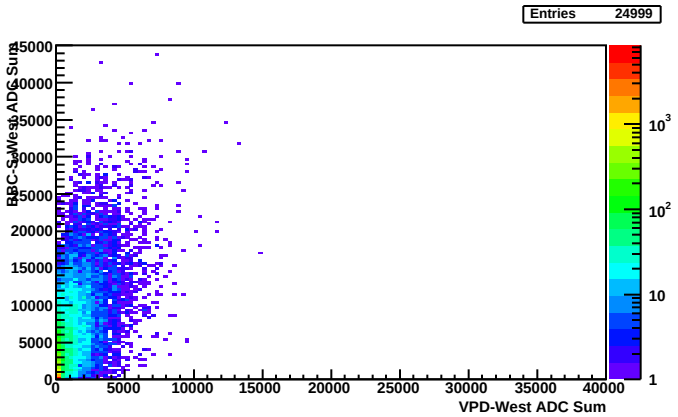

Entries 24999
BBC-L-East ADC Sum
VPD-East ADC Sum

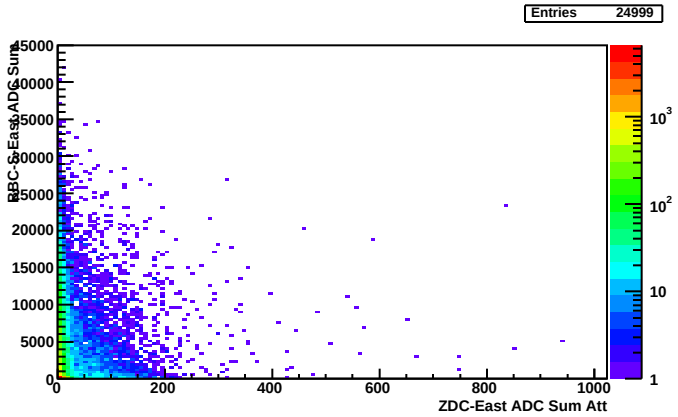

Entries 24999
BBC-L-West ADC Sum
VPD-West ADC Sum

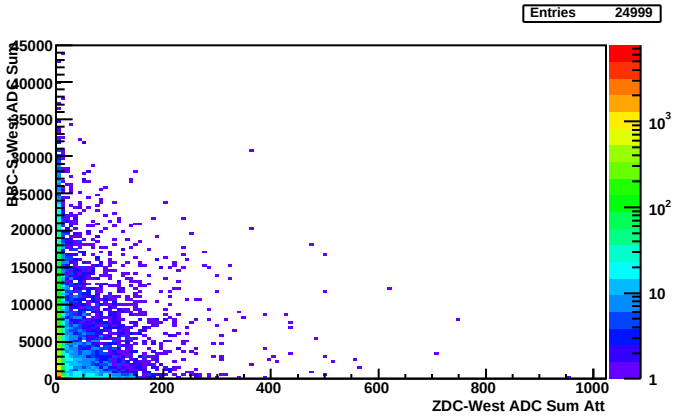

Entries 24999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

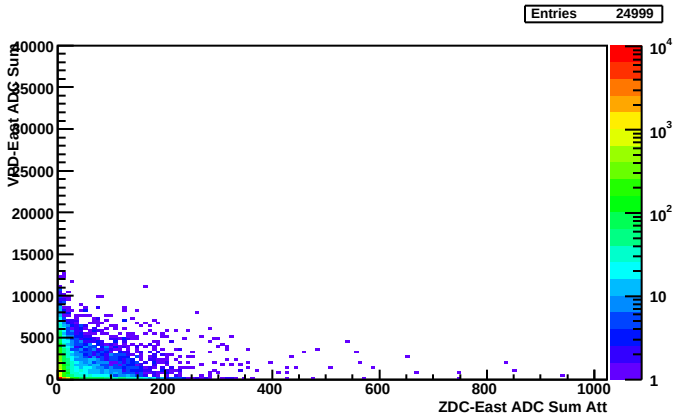

Entries 24999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

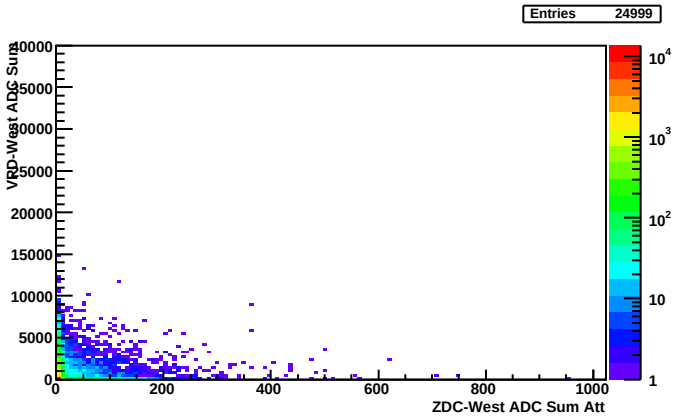

Entries 24999
BBC-S-East ADC Sum
VPD-East ADC Sum

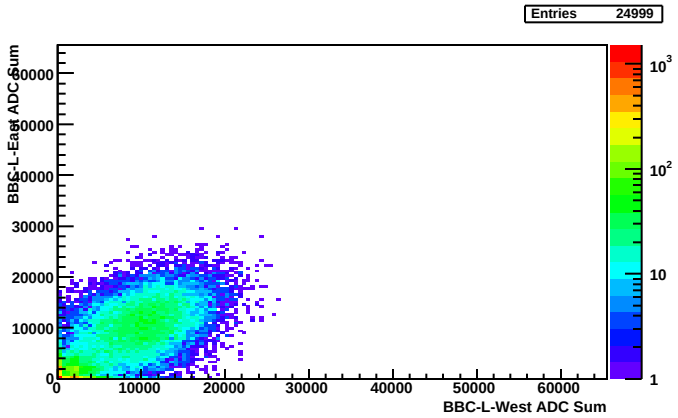

Entries 24999
BBC-S-West ADC Sum
VPD-West ADC Sum

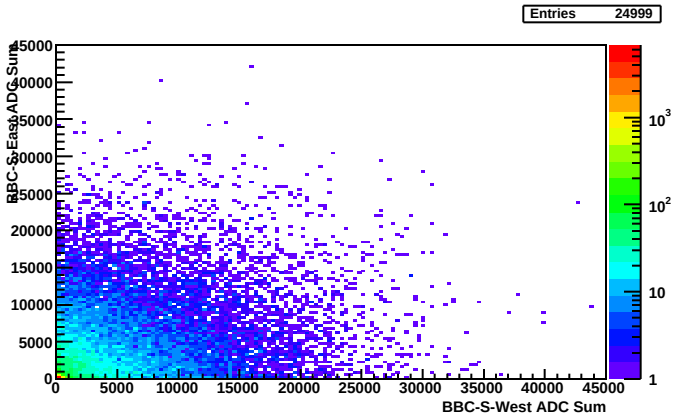

Entries 24999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

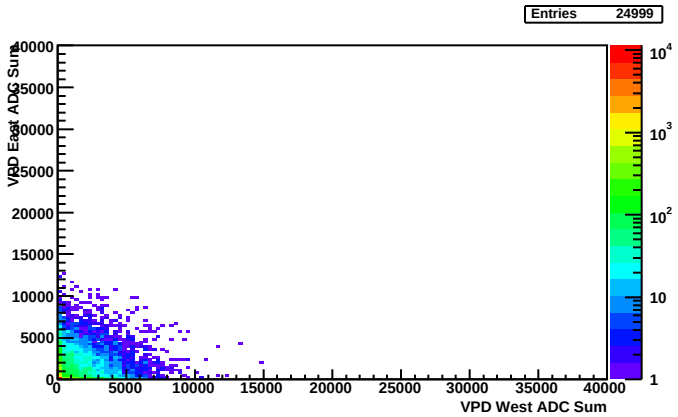

Entries 24999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

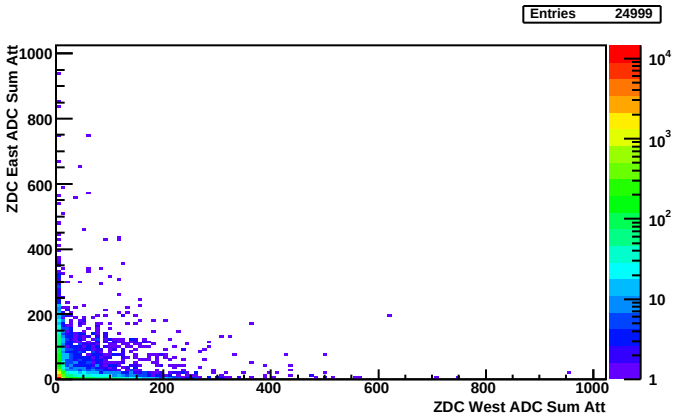

Entries 24999
VPD-East ADC Sum
ZDC-East ADC Sum Att

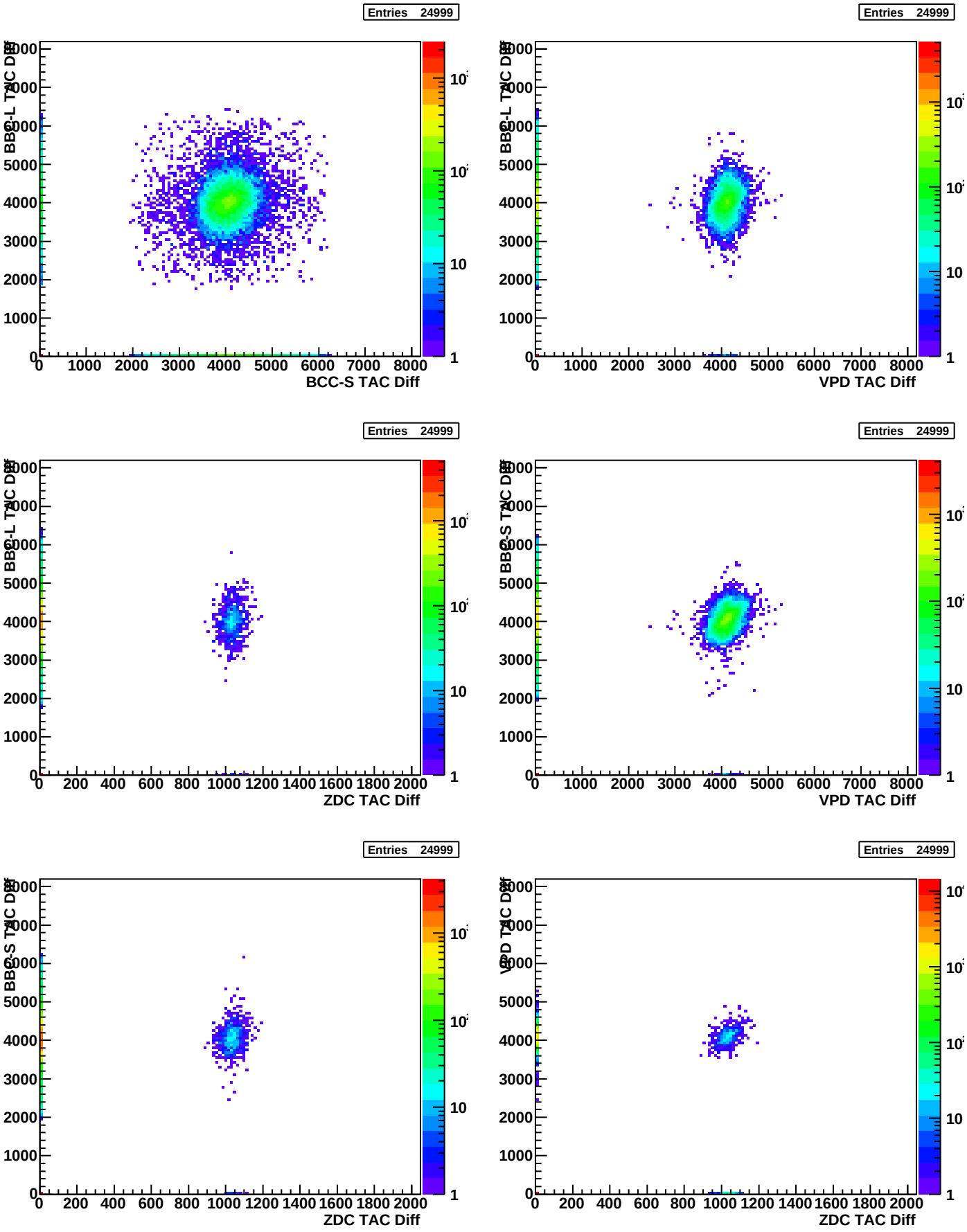

Entries 24999
VPD-West ADC Sum
ZDC-West ADC Sum Att

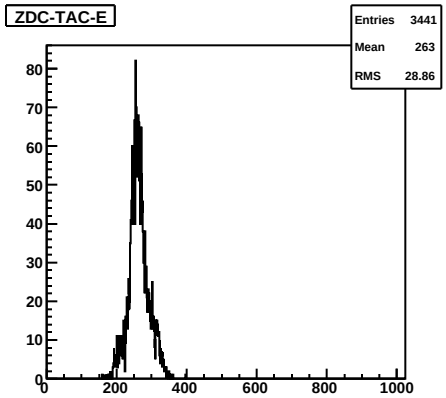

Entries 24999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

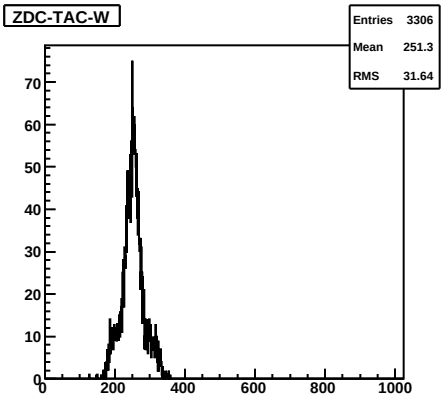

Entries 24999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

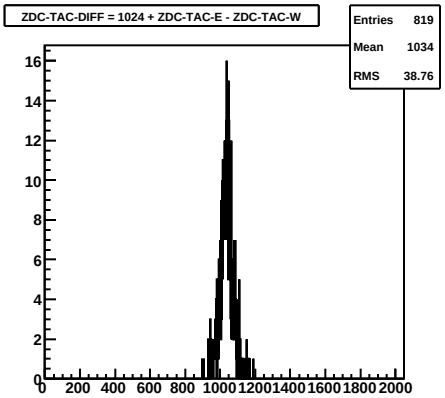

Entries 24999
VPD East ADC Sum
VPD West ADC Sum

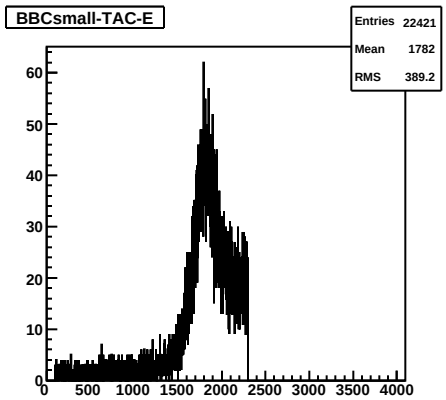

Entries 24999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

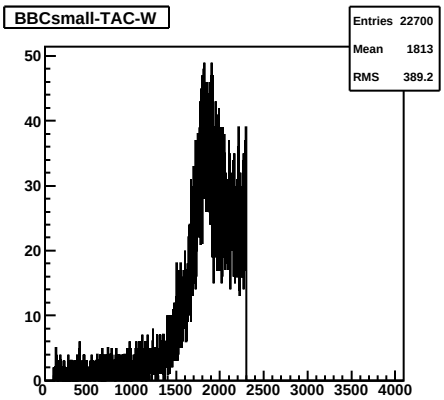

Entries 24999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 24999
BBC-L TAC Diff
VPD TAC Diff
Entries 24999
BBC-L TAC Diff
ZDC TAC Diff
Entries 24999
BBC-S TAC Diff
VPD TAC Diff
Entries 24999
BBC-S TAC Diff
ZDC TAC Diff
Entries 24999
VPD TAC Diff
ZDC TAC Diff

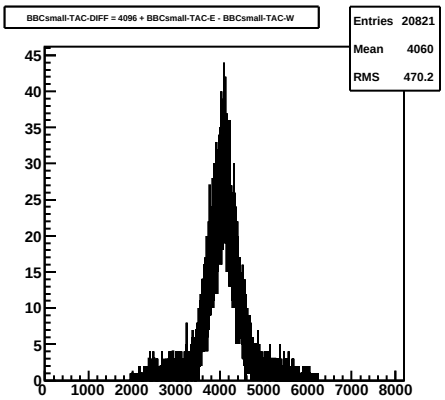

ZDC-TAC-E
Entries 3441
Mean 263
RMS 28.86

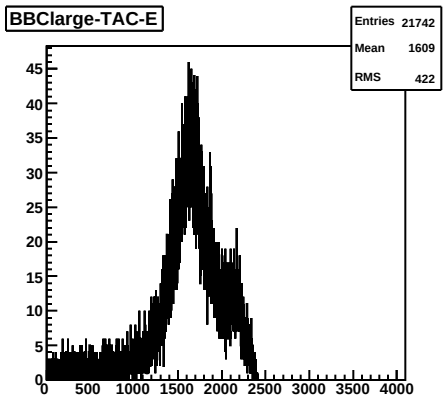

ZDC-TAC-W
Entries 3306
Mean 251.3
RMS 31.64

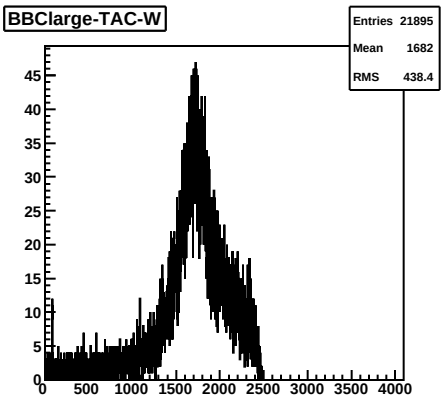

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 819
Mean 1034
RMS 38.76

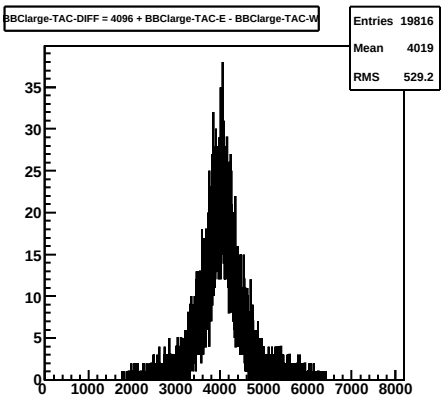

BBCsmall-TAC-E
Entries 22421
Mean 1782
RMS 389.2

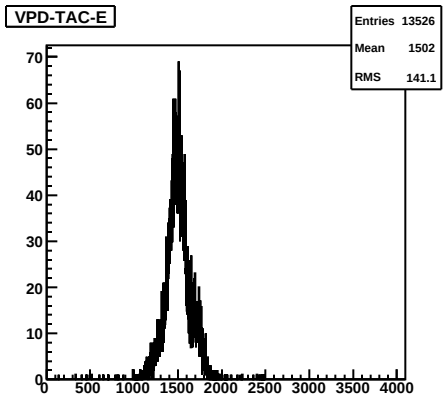

BBCsmall-TAC-W
Entries 22700
Mean 1813
RMS 389.2

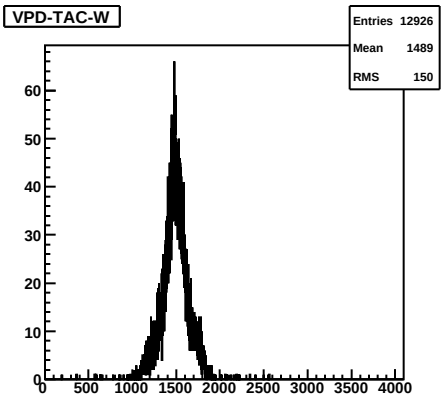

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 20821
Mean 4060
RMS 470.2

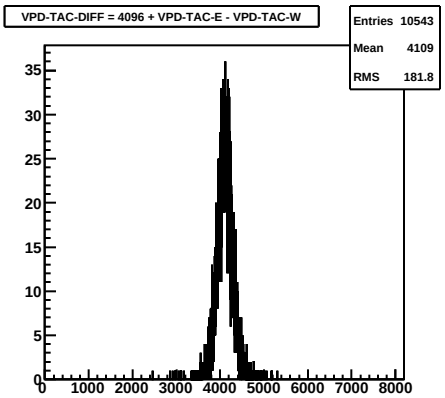

BBClarge-TAC-E
Entries 21742
Mean 1609
RMS 422

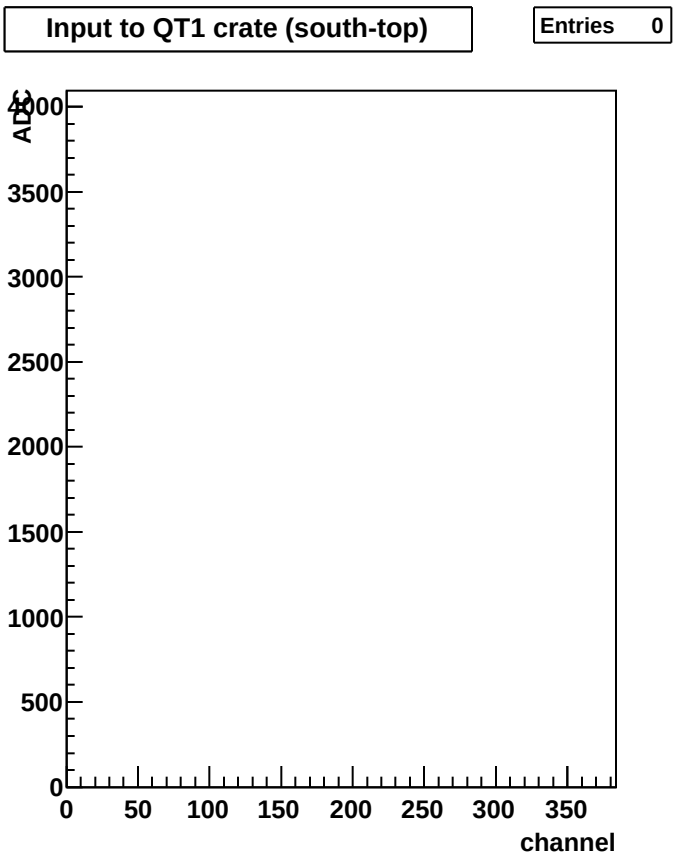

BBClarge-TAC-W
Entries 21895
Mean 1682
RMS 438.4

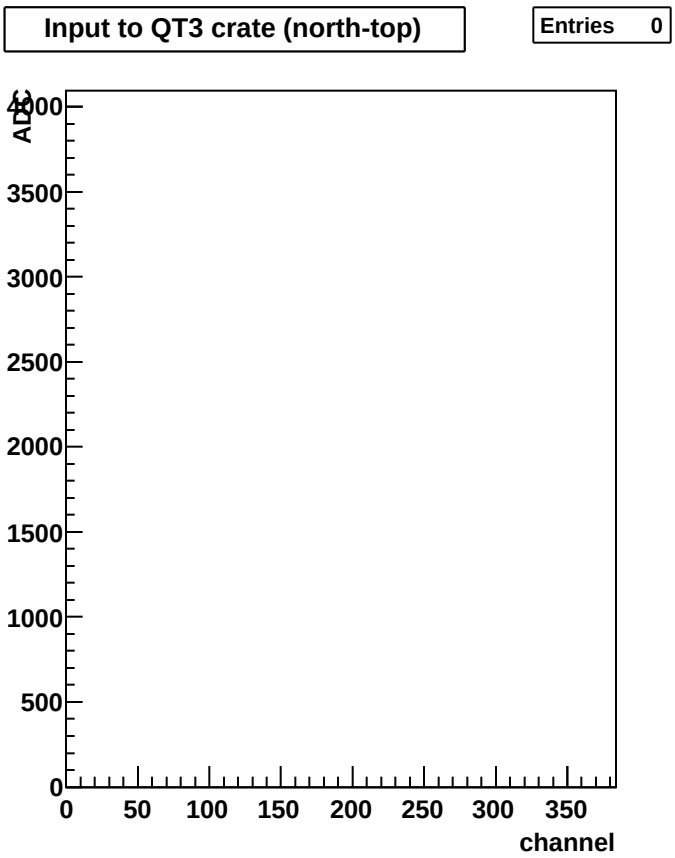

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 19816
Mean 4019
RMS 529.2

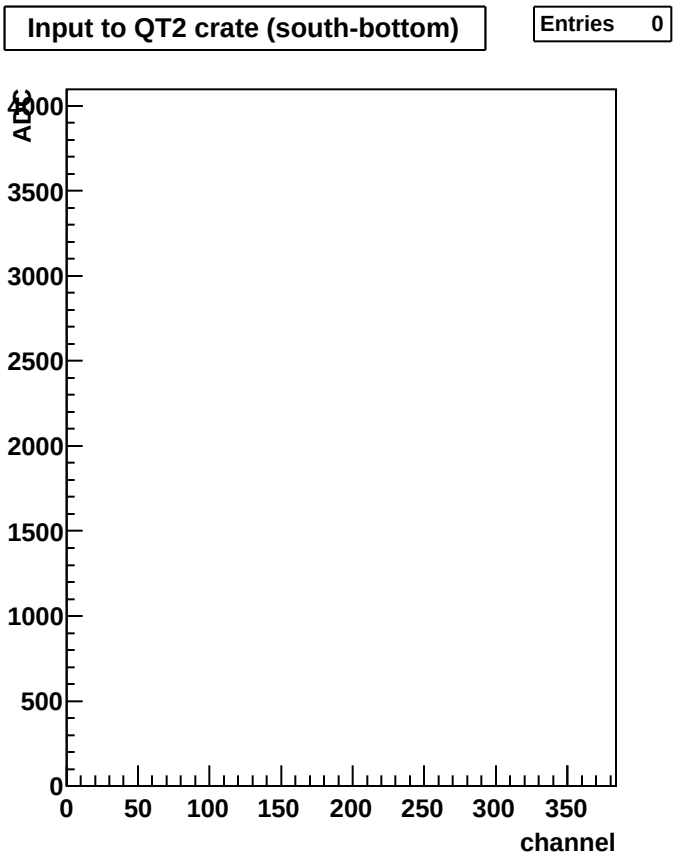

VPD-TAC-E
Entries 13526
Mean 1502
RMS 141.1

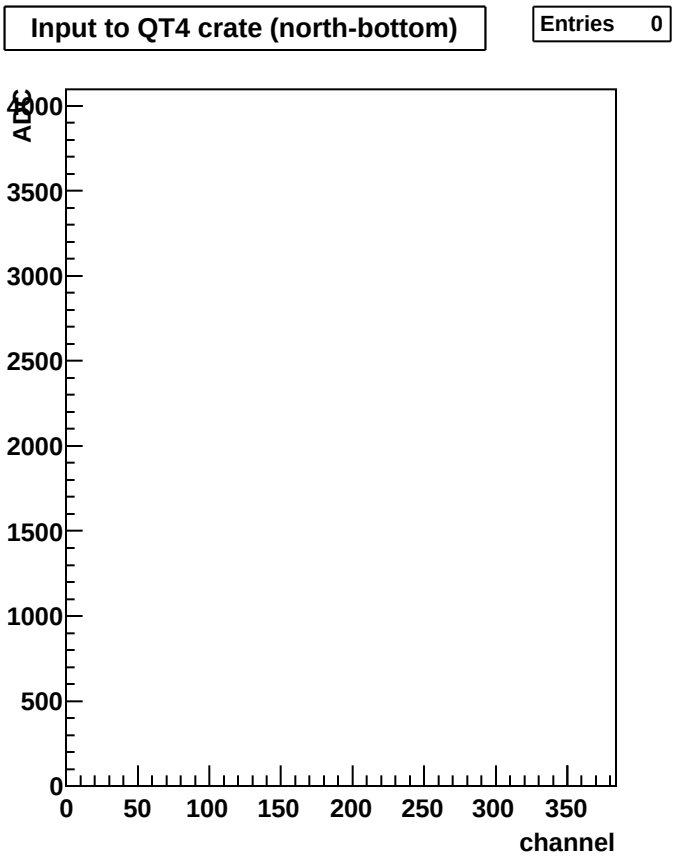

VPD-TAC-W
Entries 12926
Mean 1489
RMS 150

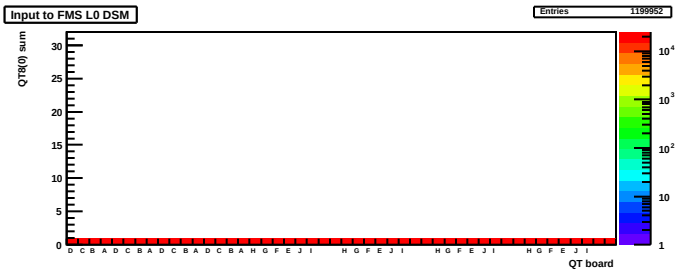

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 10543
Mean 4109
RMS 181.8

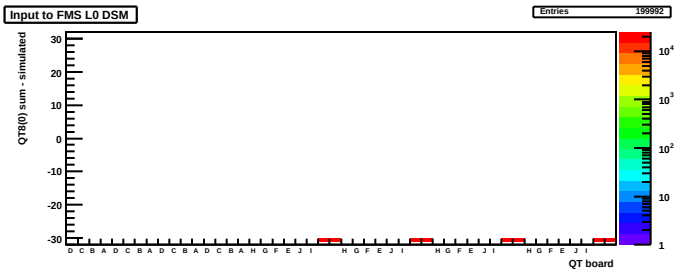

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

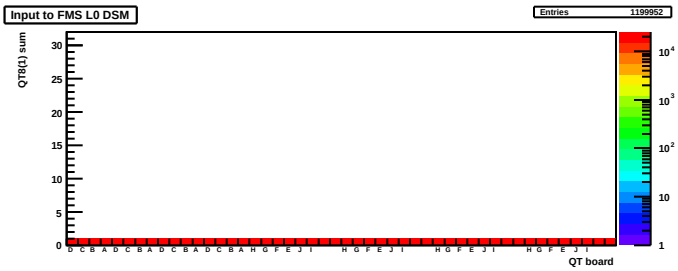

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

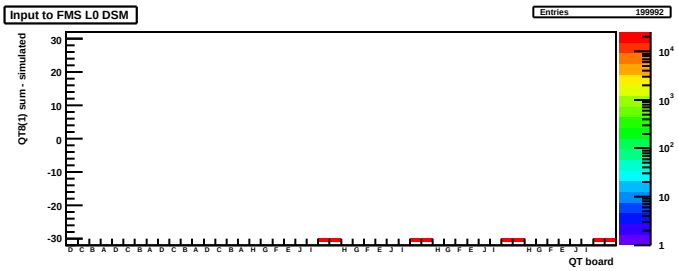

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

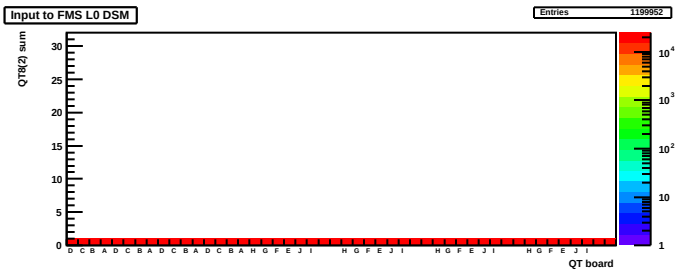

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

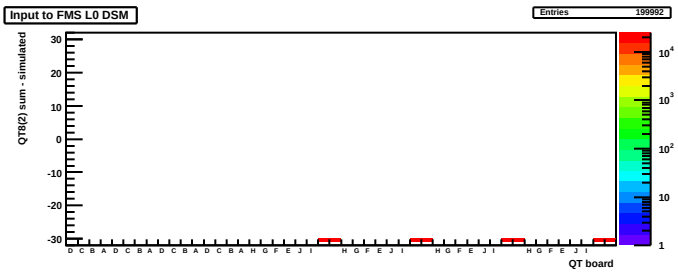

Input to FMS L0 DSM
Entries 1199952
QT8(0) sum
QT board

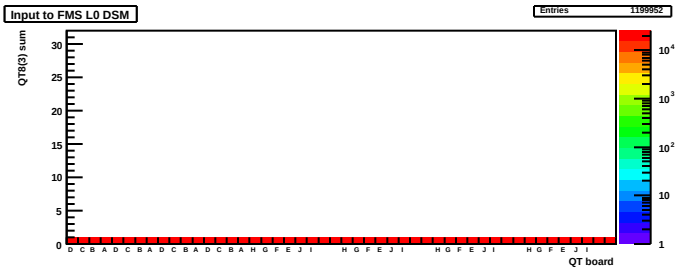

Input to FMS L0 DSM
Entries 199992
QT8(0) sum - simulated
QT board

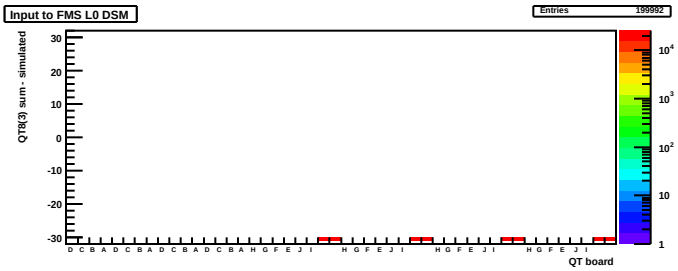

Input to FMS L0 DSM
Entries 1199952
QT8(1) sum
QT board

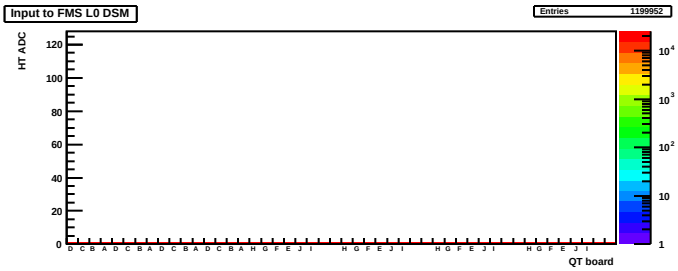

Input to FMS L0 DSM
Entries 199992
QT8(1) sum - simulated
QT board

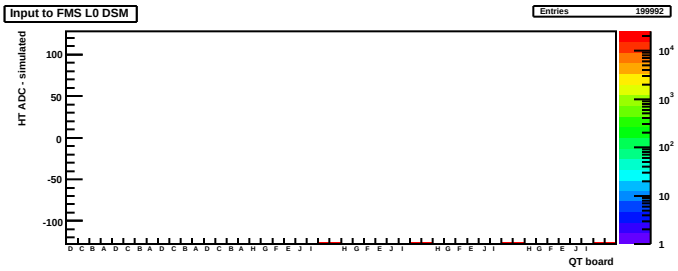

Input to FMS L0 DSM
Entries 1199952
QT8(2) sum
QT board

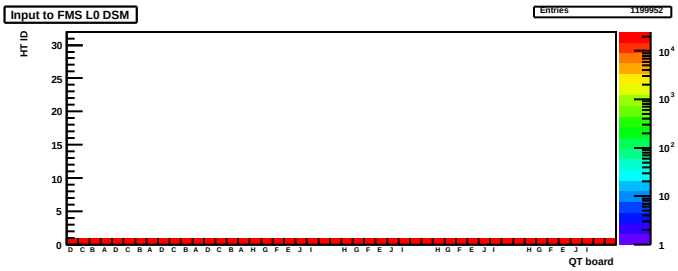

Input to FMS L0 DSM
Entries 199992
QT8(2) sum - simulated
QT board

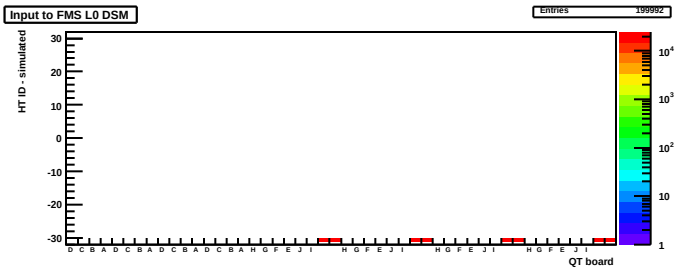

Input to FMS L0 DSM
Entries 1199952
QT8(3) sum
QT board

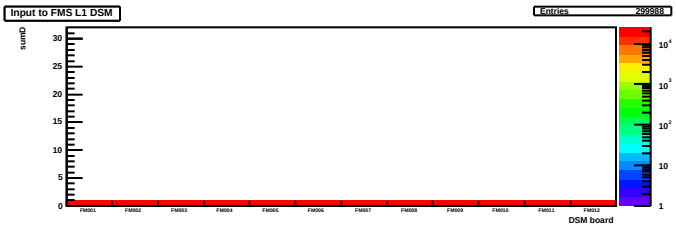

Input to FMS L0 DSM
Entries 199992
QT8(3) sum - simulated
QT board

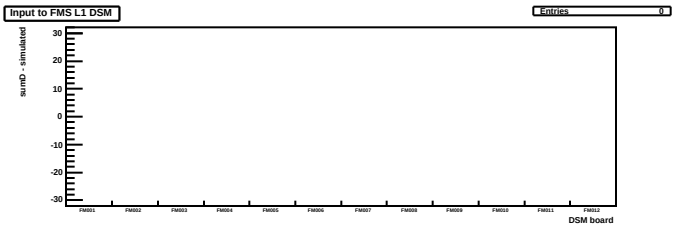

Input to FMS L0 DSM
Entries 1199952
HT ADC
QT board

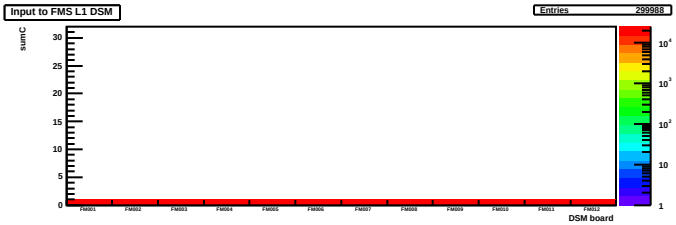

Input to FMS L0 DSM
Entries 199992
HT ADC - simulated
QT board

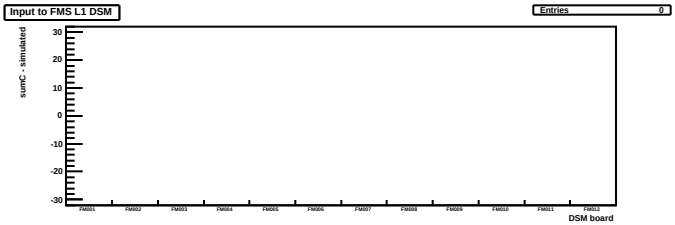

Input to FMS L0 DSM
Entries 1199952
HT ID
QT board

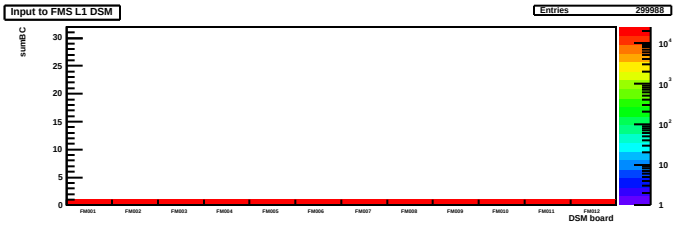

Input to FMS L0 DSM
Entries 199992
HT ID - simulated
QT board

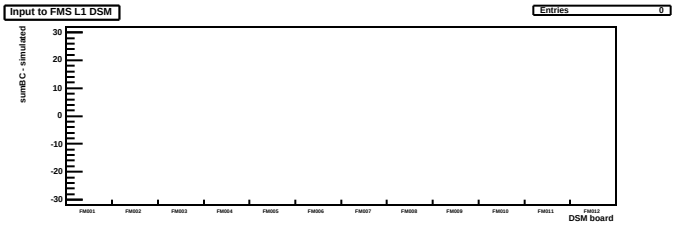

Input to FMS L1 DSM
Entries 299988
sumD
DSM board

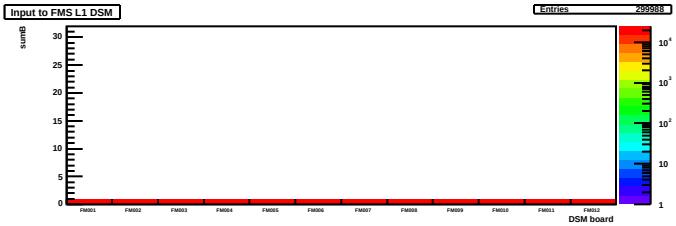

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

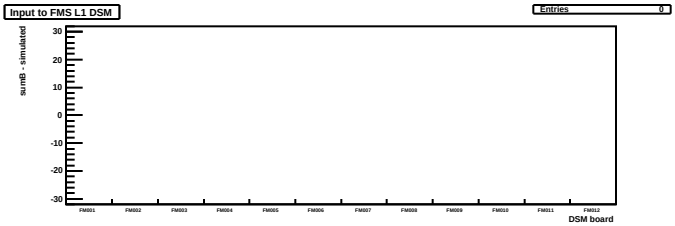

Input to FMS L1 DSM
Entries 299988
sumC
DSM board

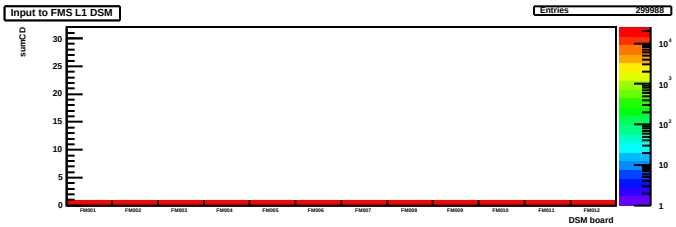

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

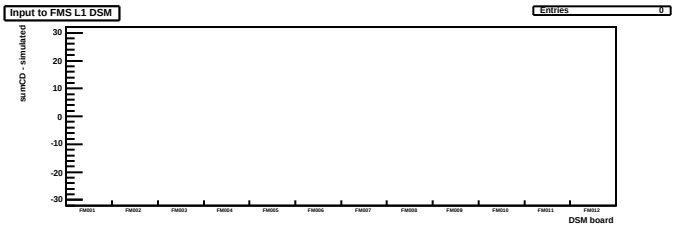

Input to FMS L1 DSM
Entries 299988
sumBC
DSM board

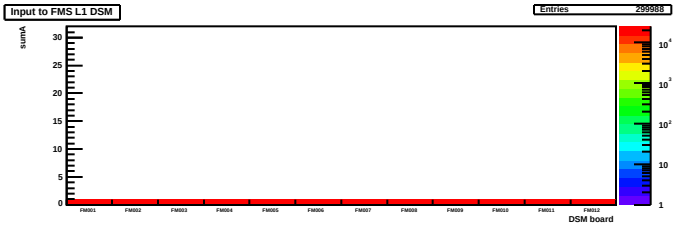

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

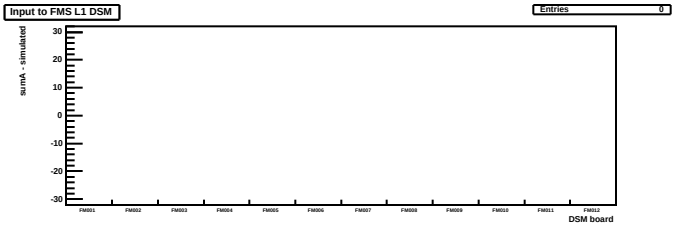

Input to FMS L1 DSM
Entries 299988
sumB
DSM board

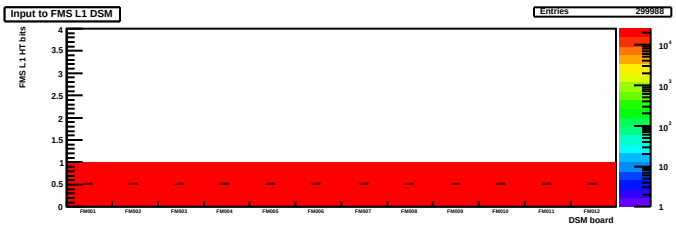

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

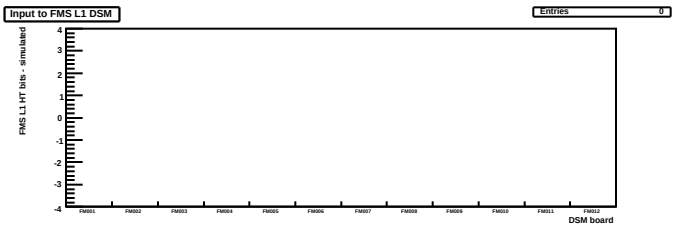

Input to FMS L1 DSM
Entries 299988
sumCD
DSM board

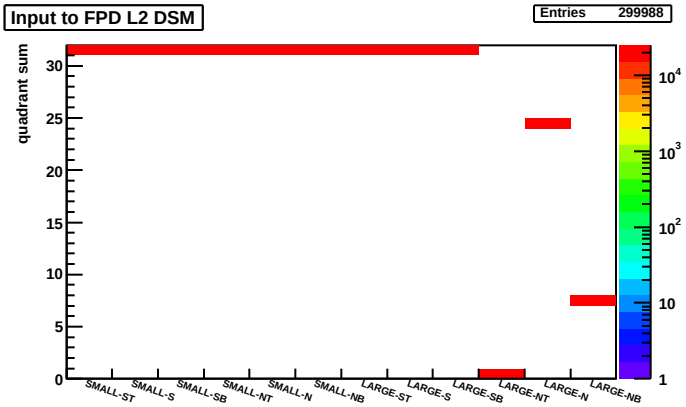

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

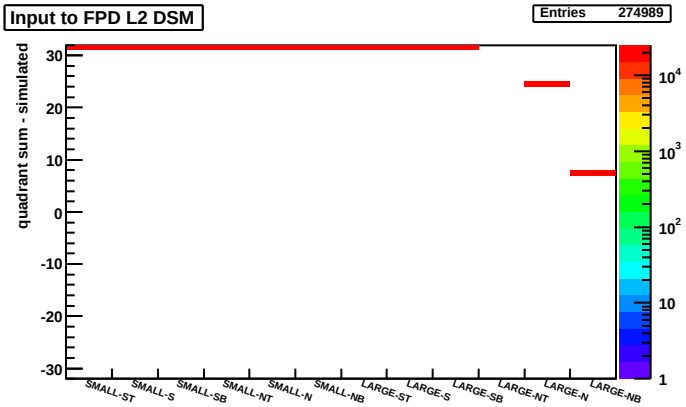

Input to FMS L1 DSM
Entries 299988
sumA
DSM board

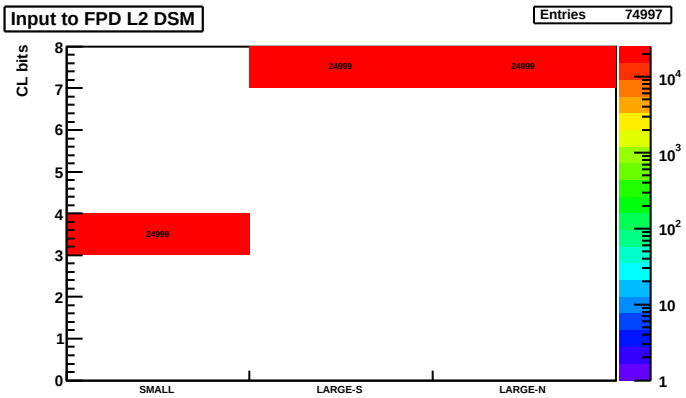

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

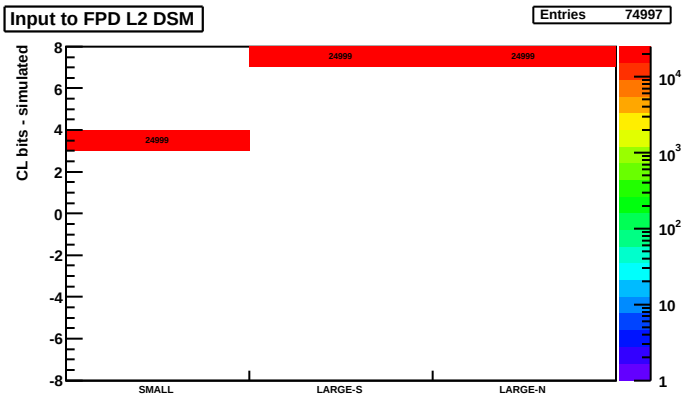

Input to FMS L1 DSM
Entries 299988
FMS L1 HT bits
DSM board

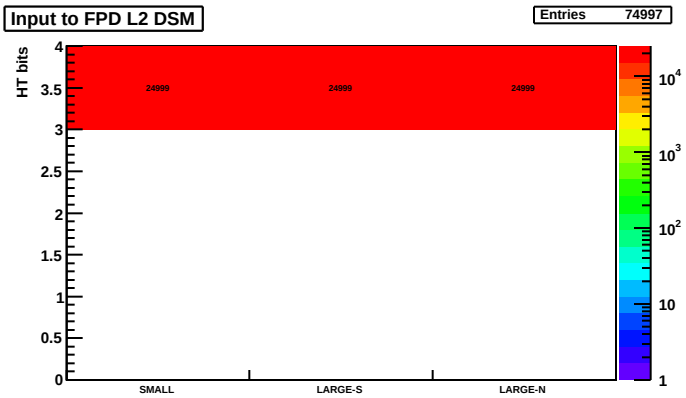

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

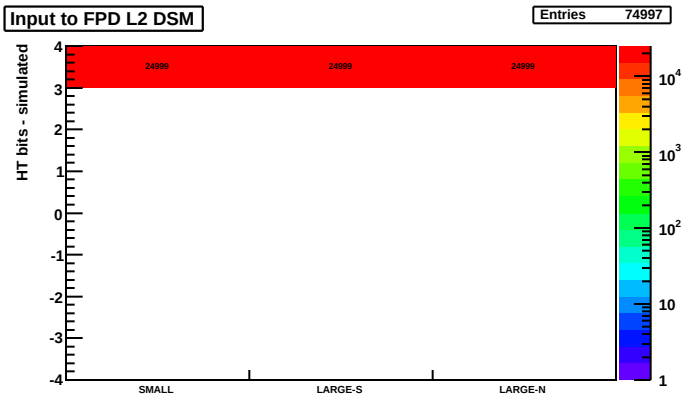

Input to FPD L2 DSM
Entries 299988
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

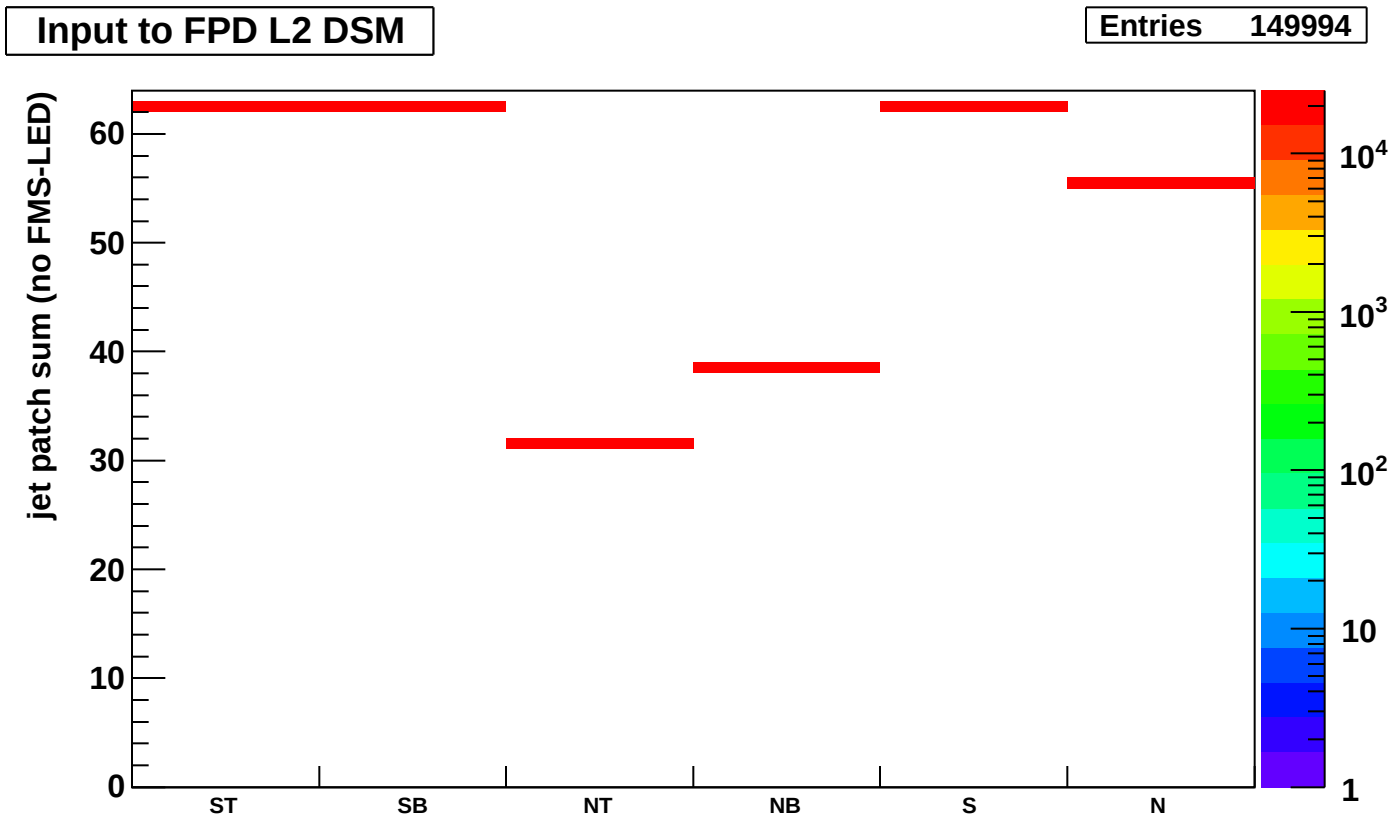

Input to FPD L2 DSM
Entries 274989
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

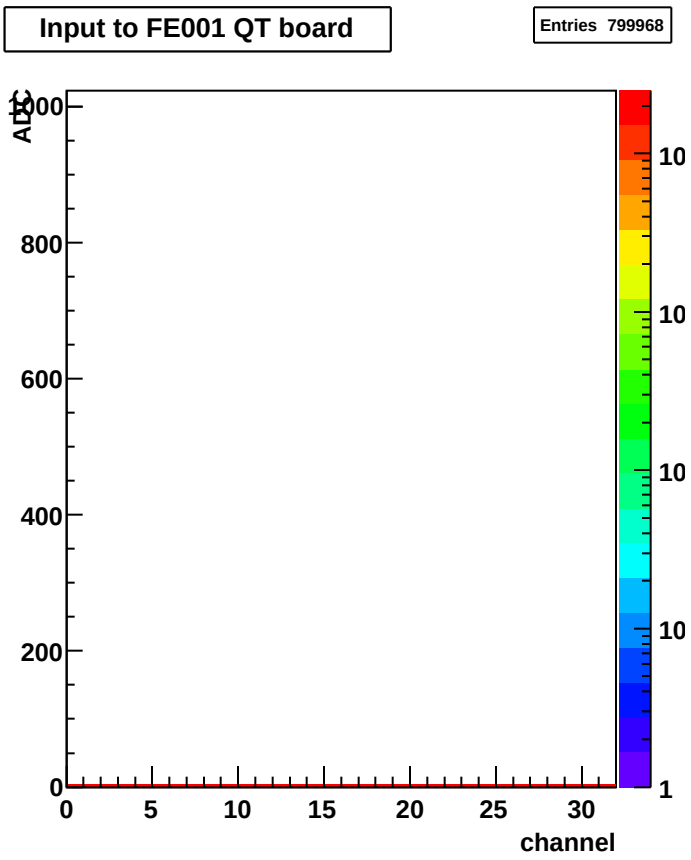

Input to FPD L2 DSM
Entries 74997
CL bits
24999
24999
24999
SMALL
LARGE-S
LARGE-N

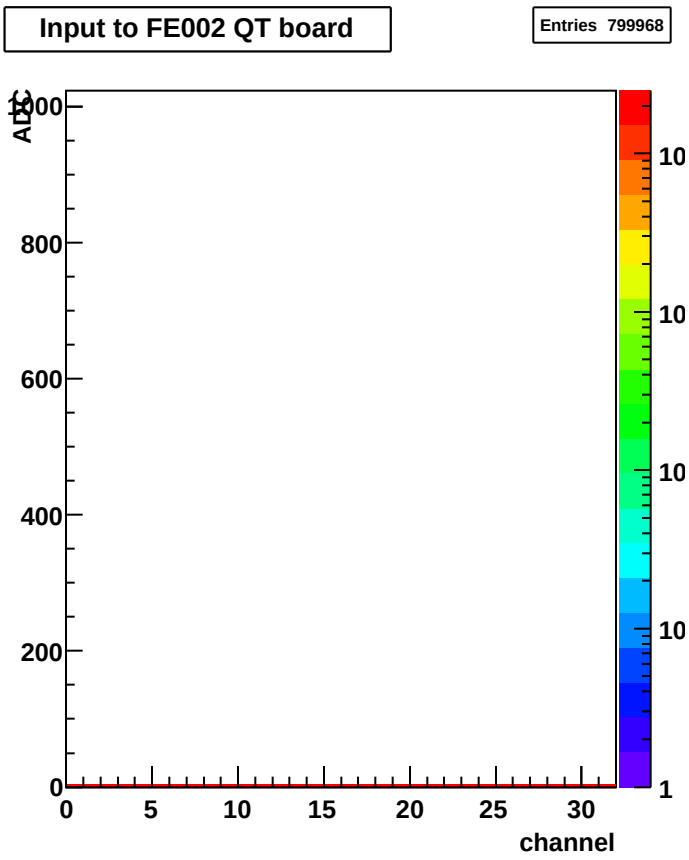

Input to FPD L2 DSM
Entries 74997
CL bits - simulated
24999
24999
24999
SMALL
LARGE-S
LARGE-N

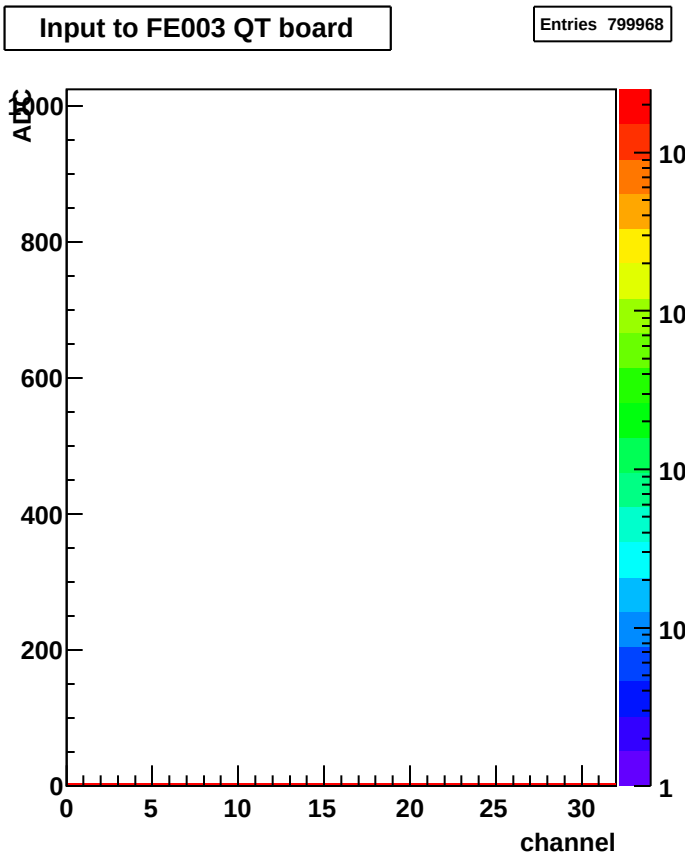

Input to FPD L2 DSM
Entries 74997
HT bits
24999
24999
24999
SMALL
LARGE-S
LARGE-N

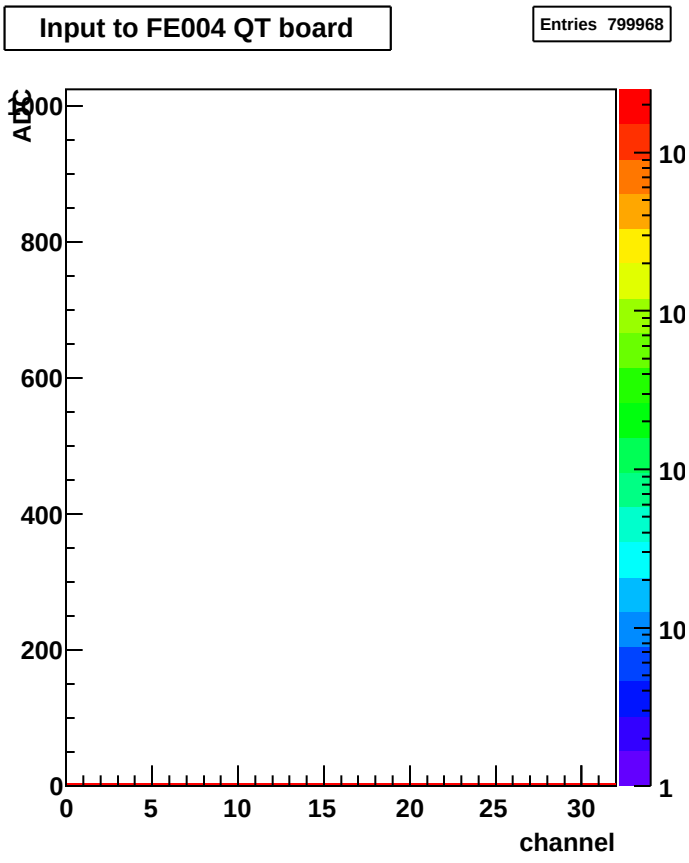

Input to FPD L2 DSM
Entries 74997
HT bits - simulated
24999
24999
24999
SMALL
LARGE-S
LARGE-N

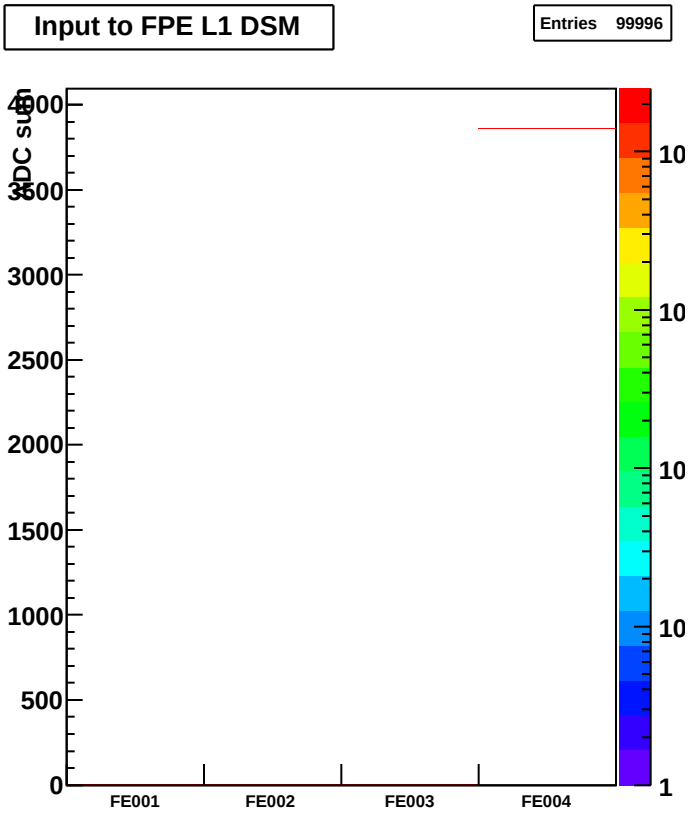

Input to FPD L2 DSM
Entries 149994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

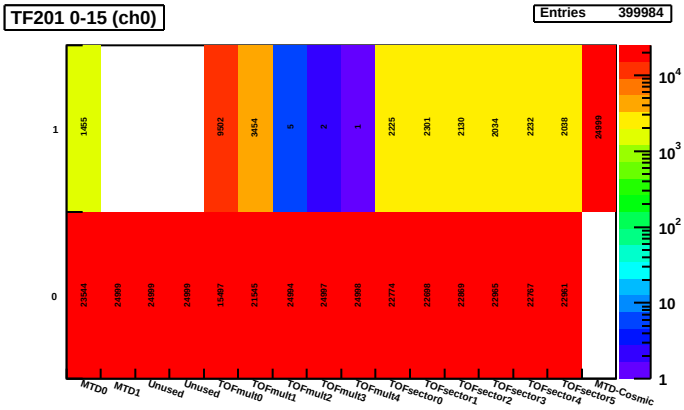

Input to FE001 QT board
Entries 799968
ADC
channel

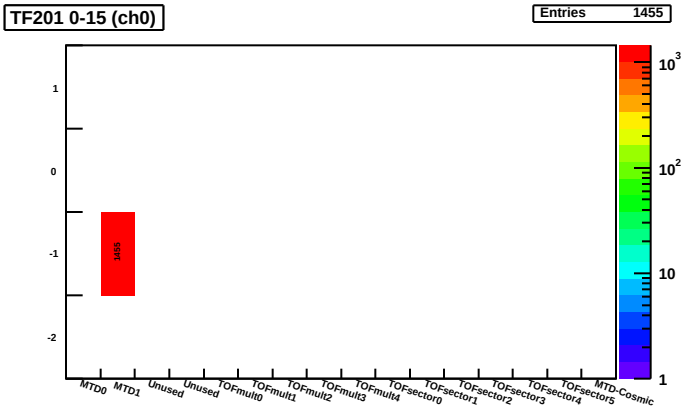

Input to FE002 QT board
Entries 799968
ADC
channel

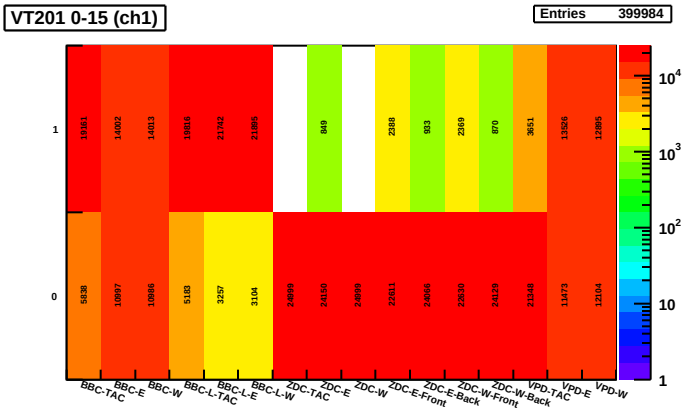

Input to FE003 QT board
Entries 799968
ADC
channel

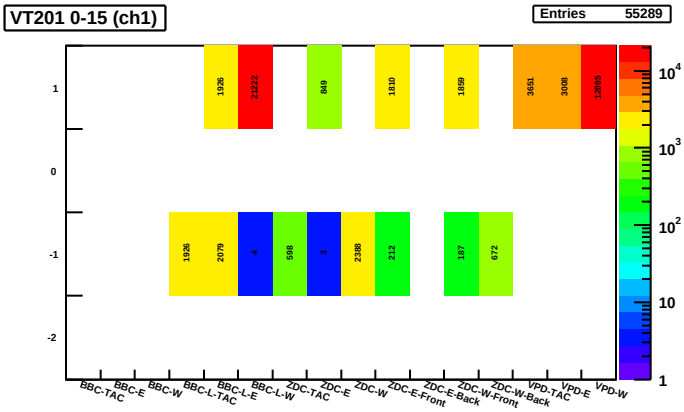

Input to FE004 QT board
Entries 799968
ADC
channel


Input to FPE L1 DSM
Entries 99996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 399984
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1455
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 399984
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 55289
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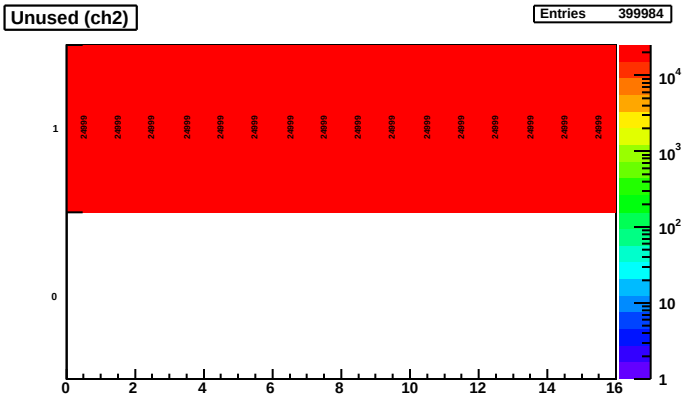
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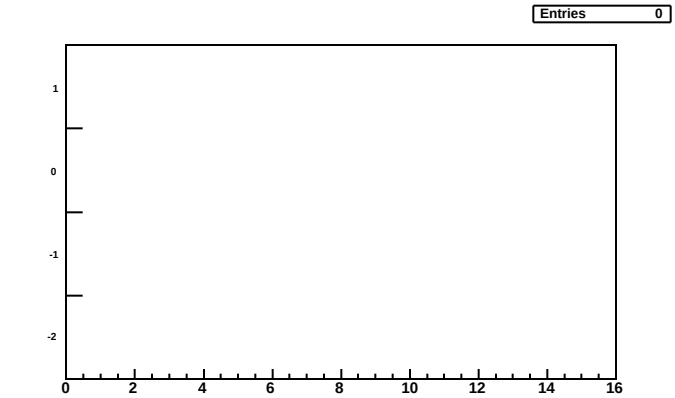
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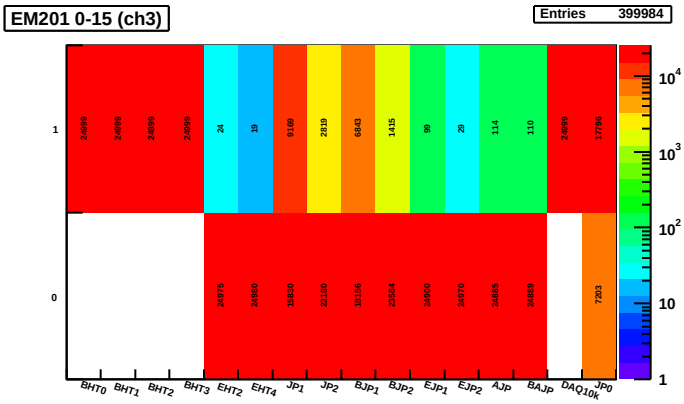
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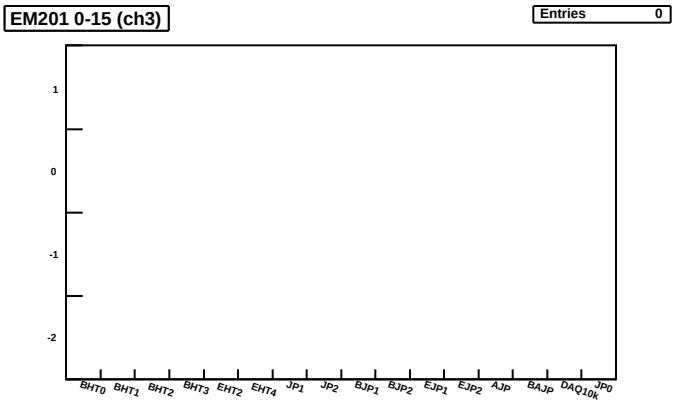
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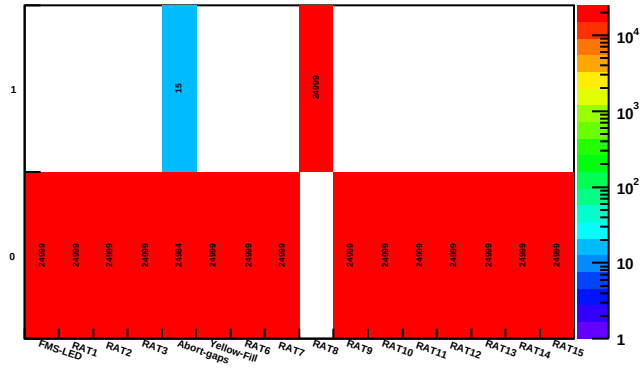
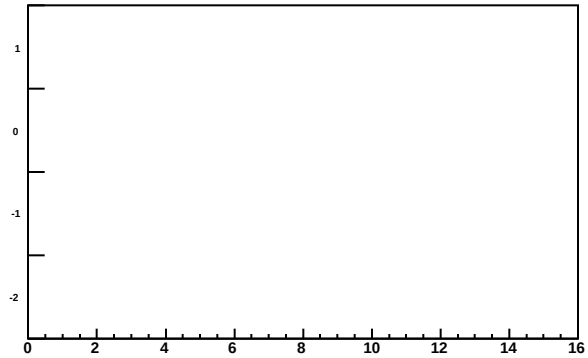
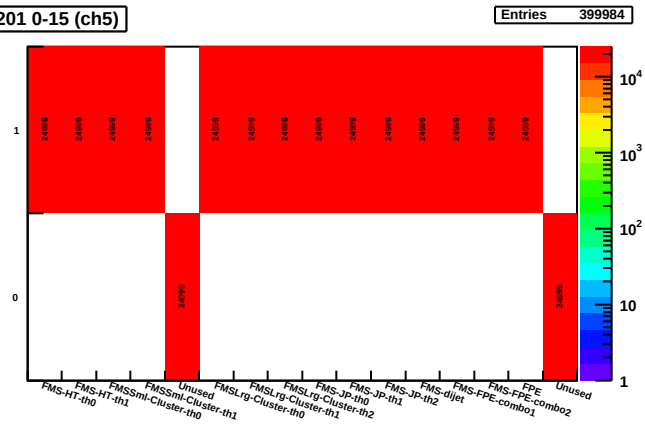
RAT board (ch4)

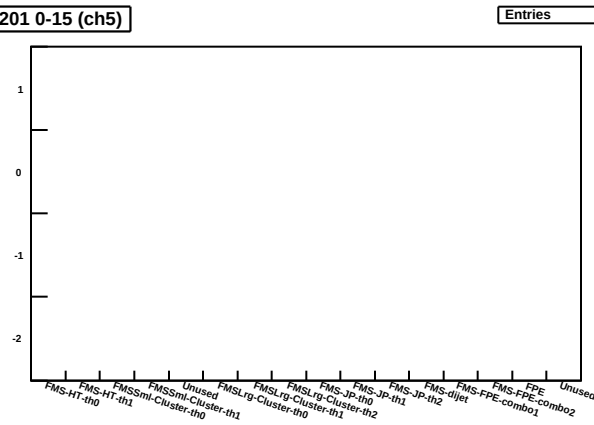




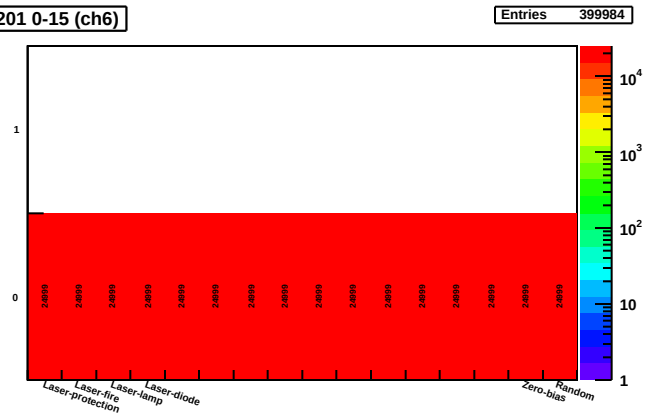
FP201 0-15 (ch5)

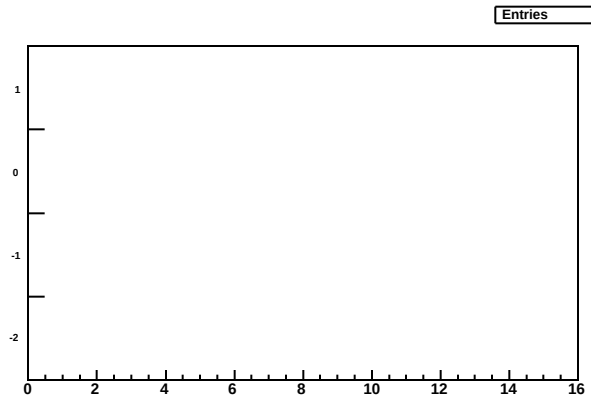
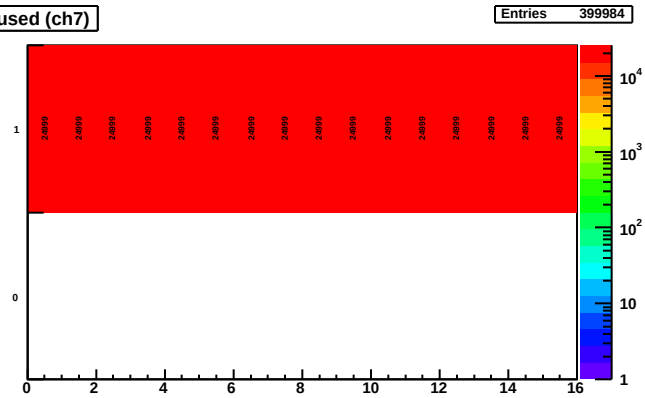
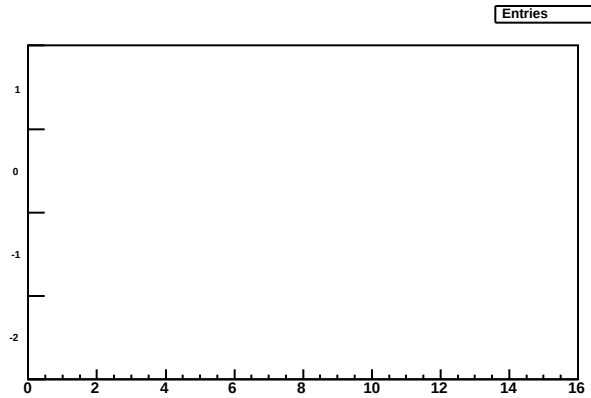


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)