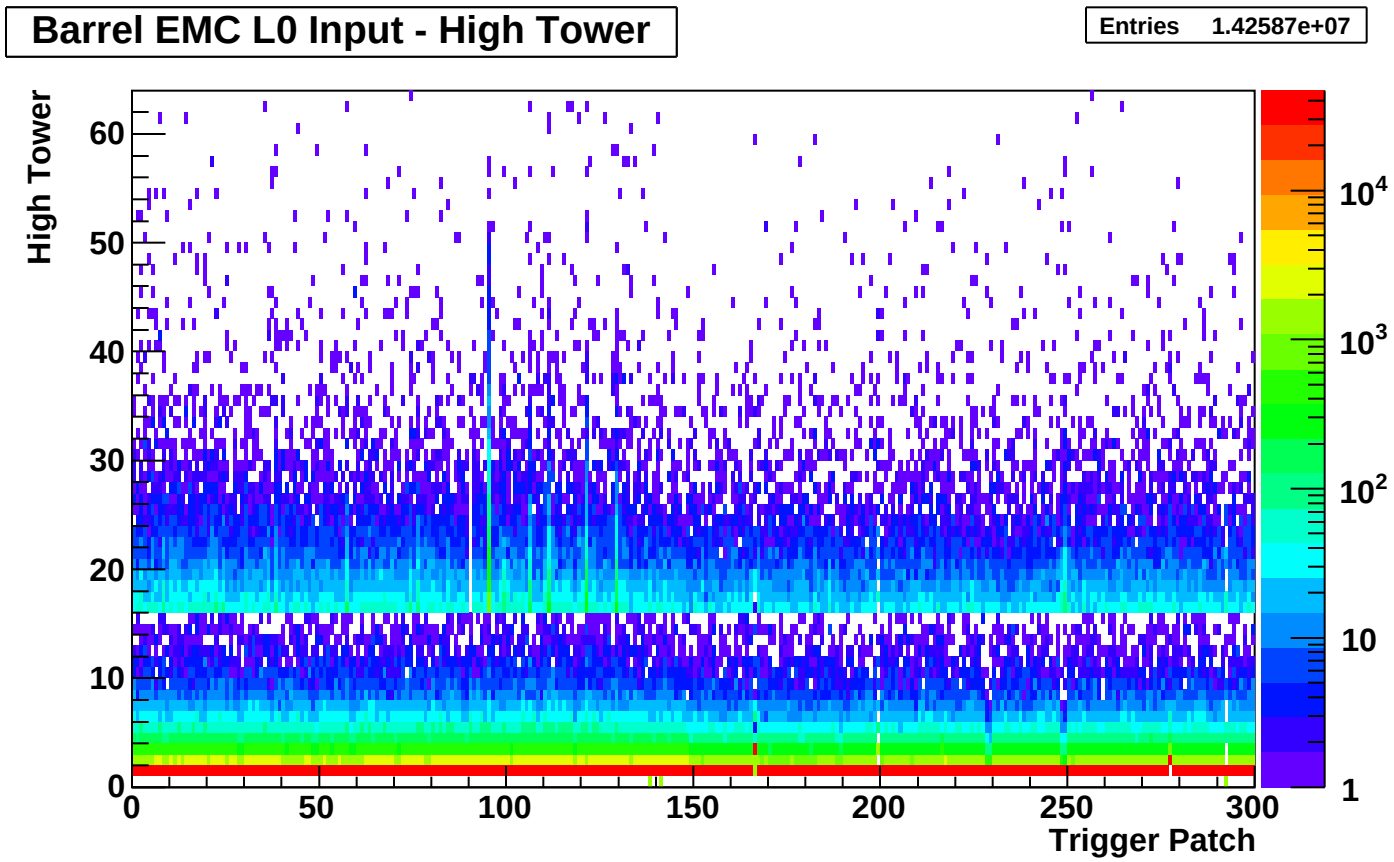
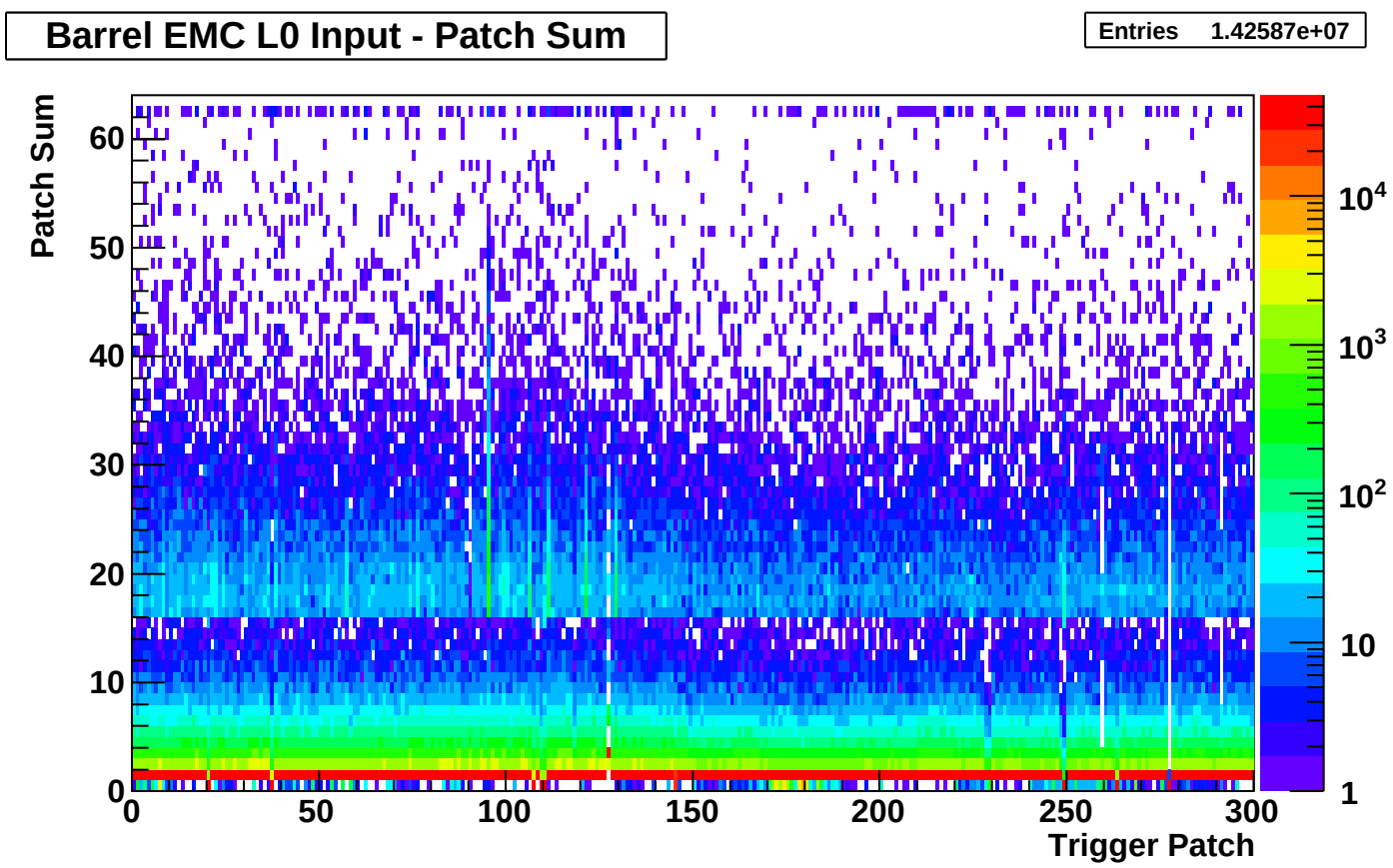
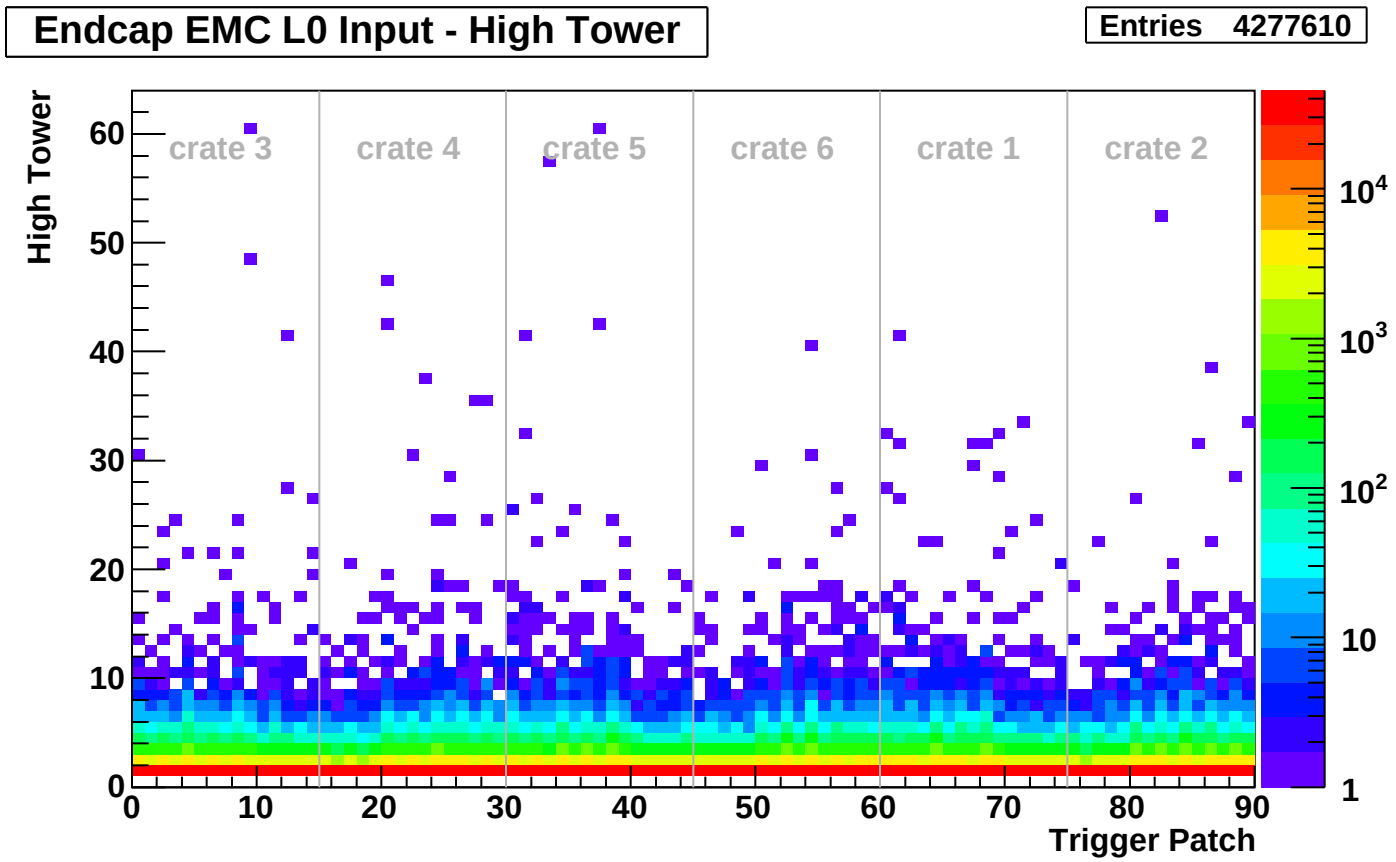
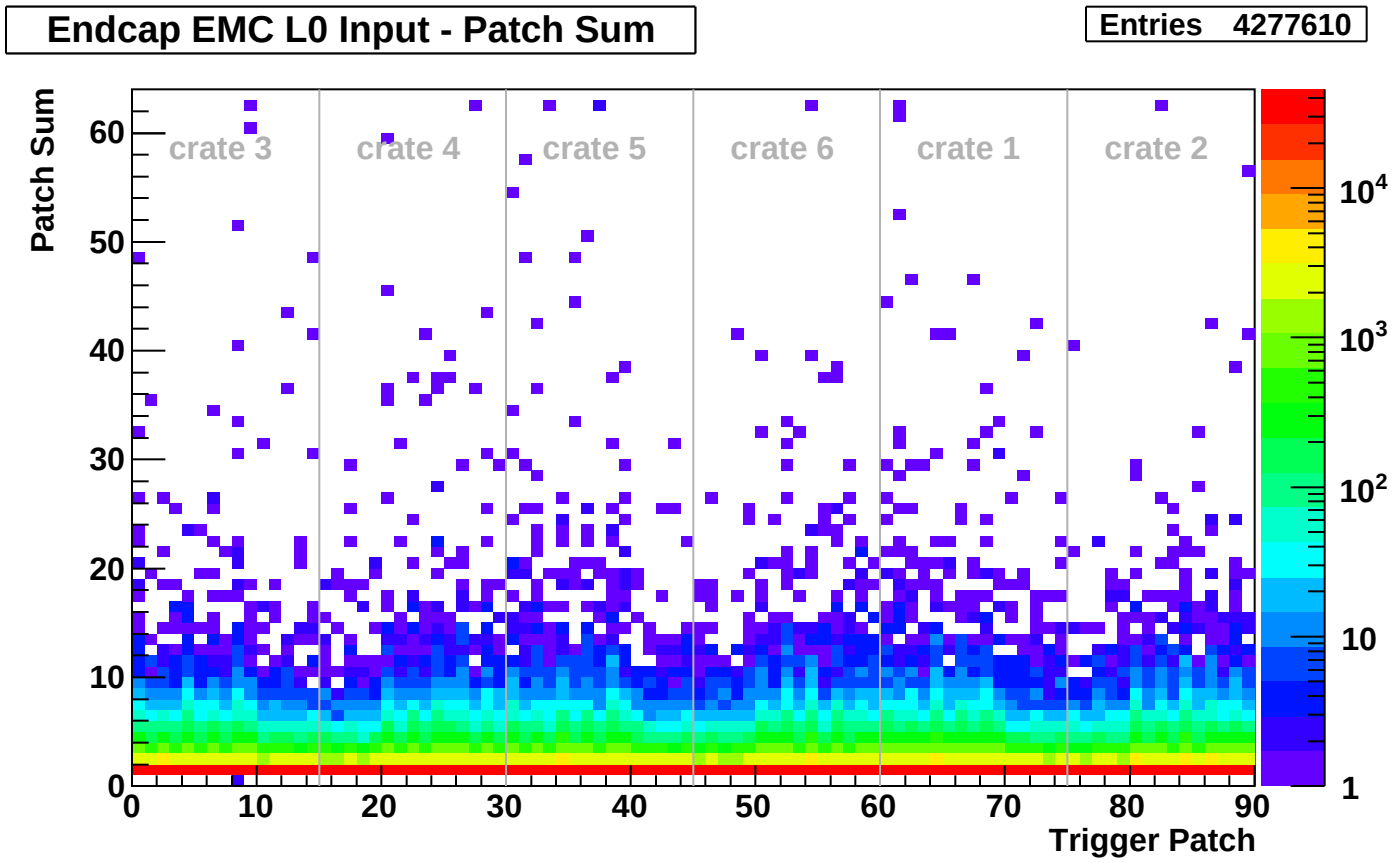
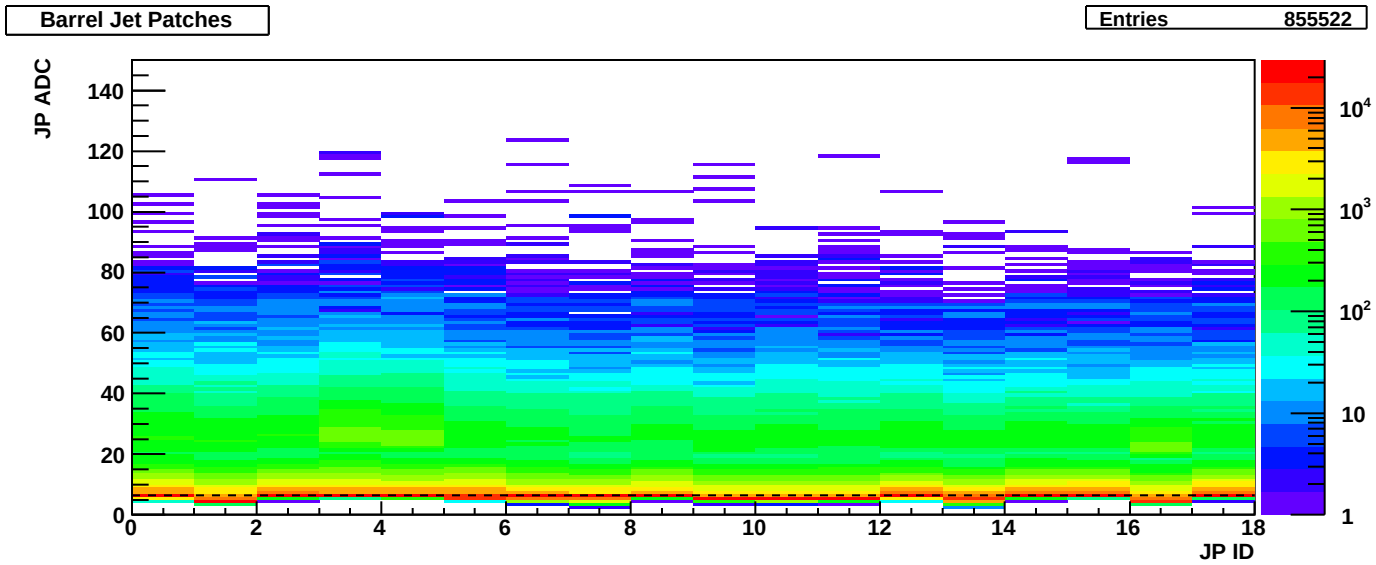
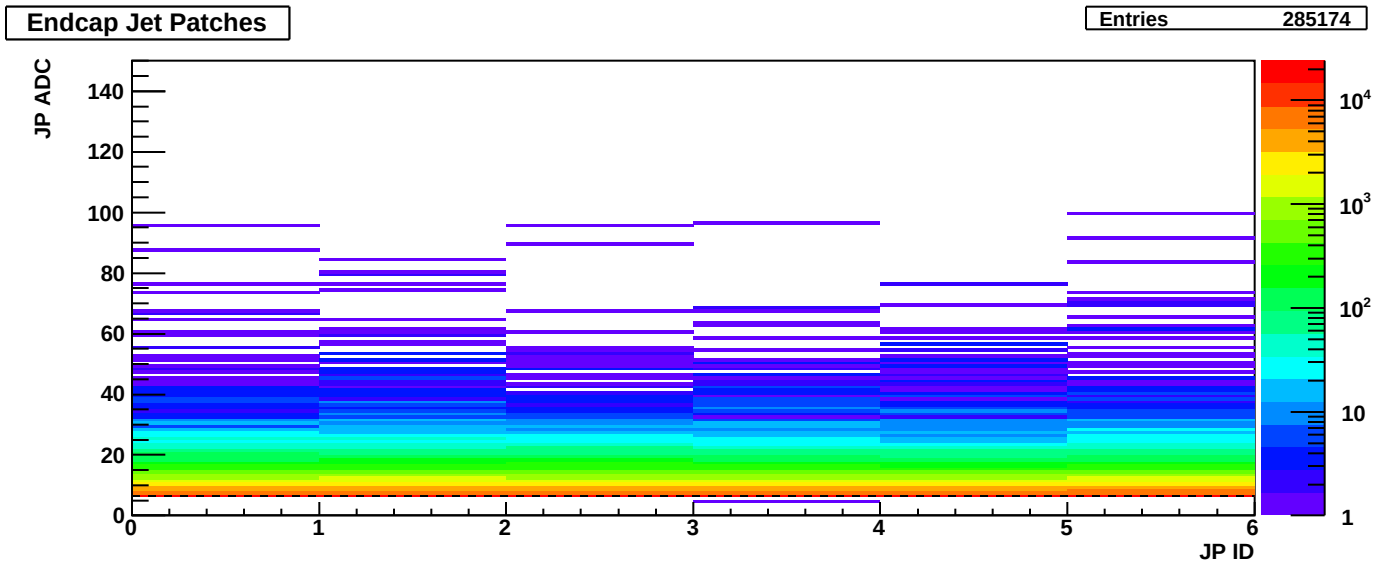

Barrel EMC L0 Input - High Tower
Entries 1.42587e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

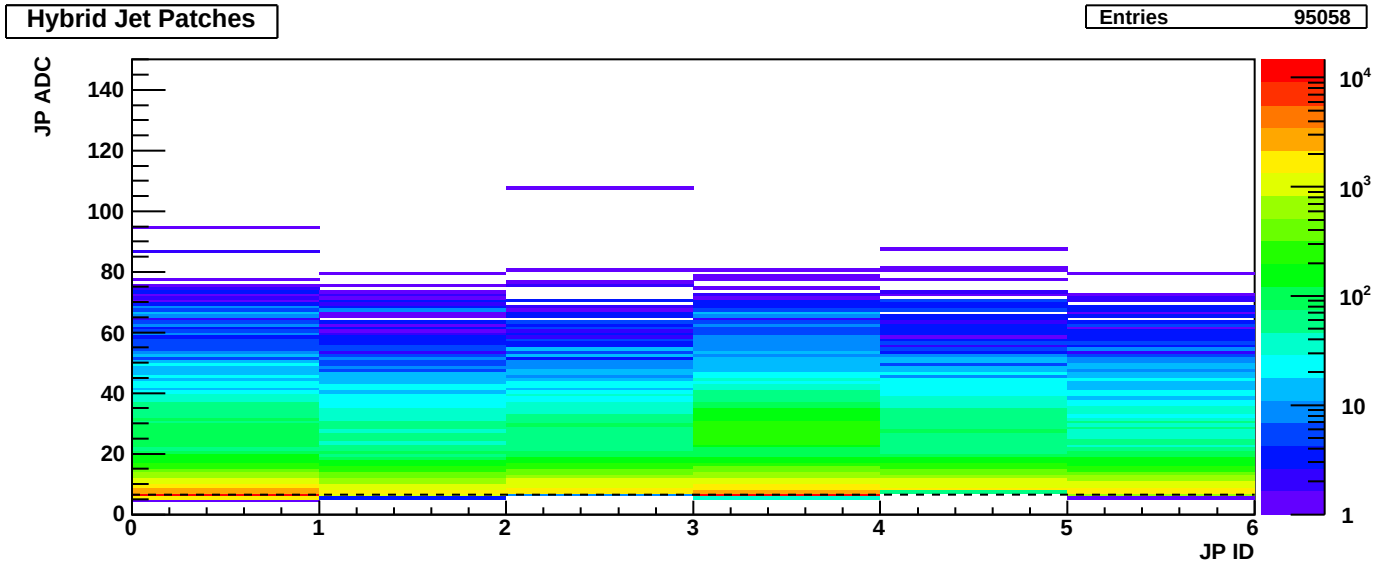

Barrel EMC L0 Input - Patch Sum
Entries 1.42587e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

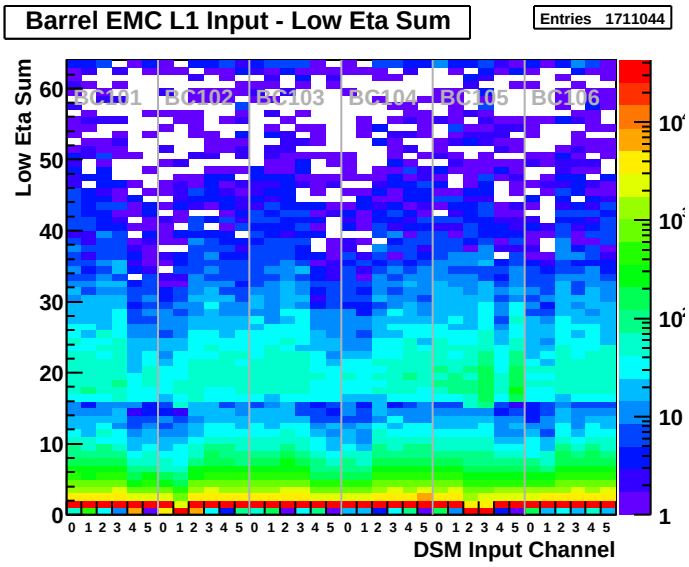

Endcap EMC L0 Input - High Tower
Entries 4277610
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

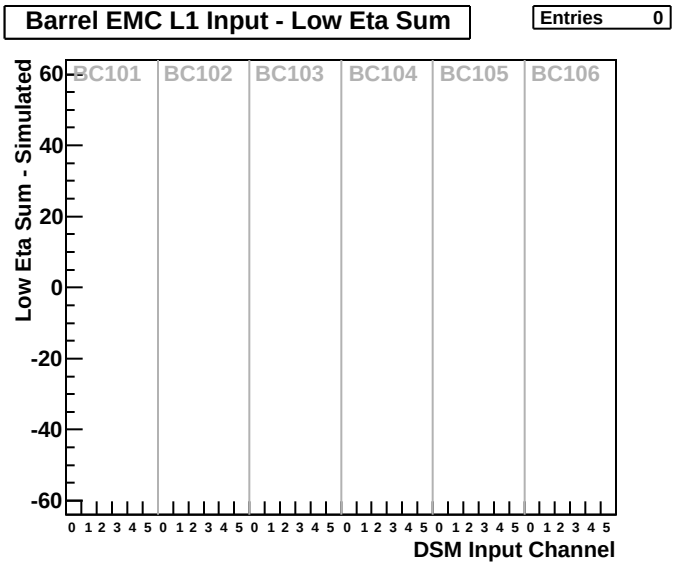

Endcap EMC L0 Input - Patch Sum
Entries 4277610
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

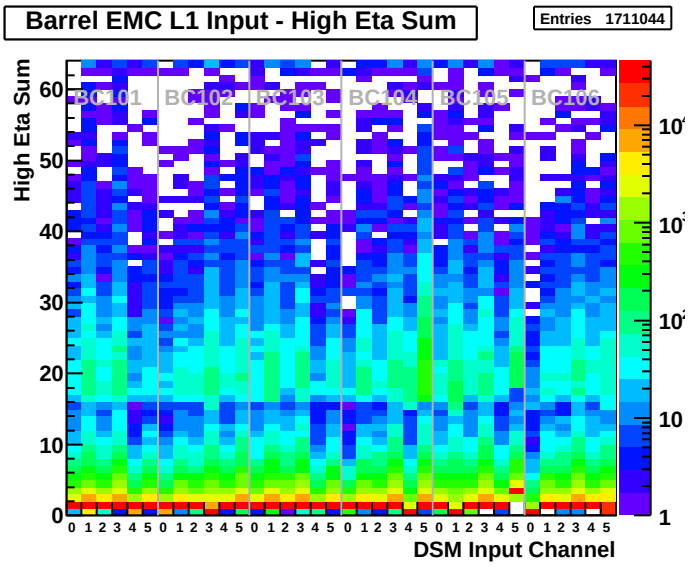

Barrel Jet Patches
Entries 855522
JP ADC
JP ID

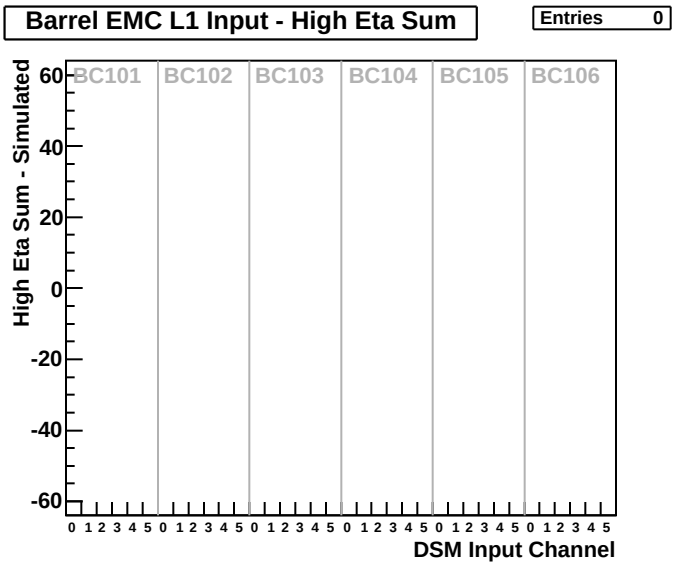

Endcap Jet Patches
Entries 285174
JP ADC
JP ID

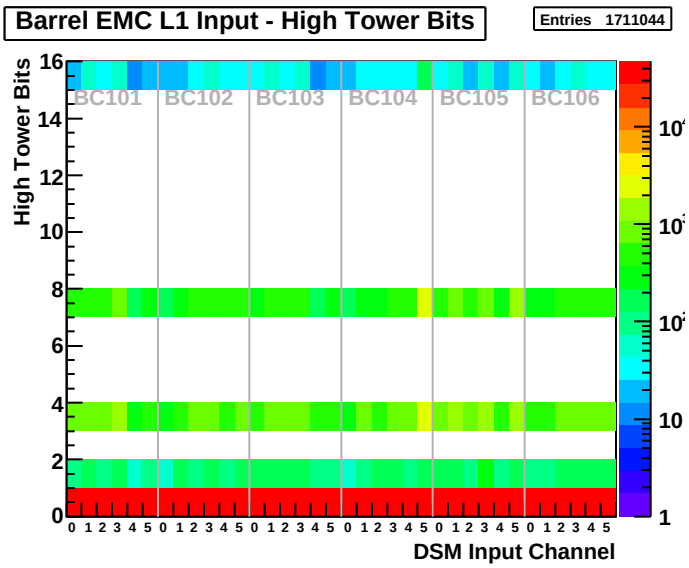

Hybrid Jet Patches
Entries 95058
JP ADC
JP ID

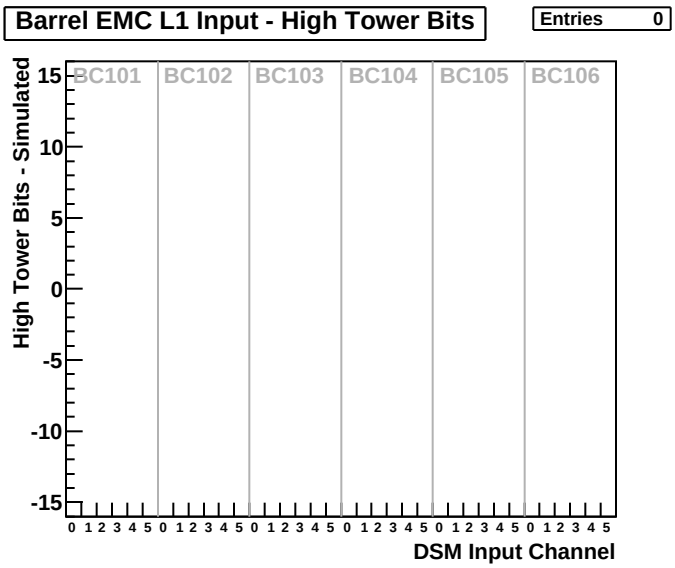

Barrel EMC L1 Input - Low Eta Sum
Entries 1711044
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

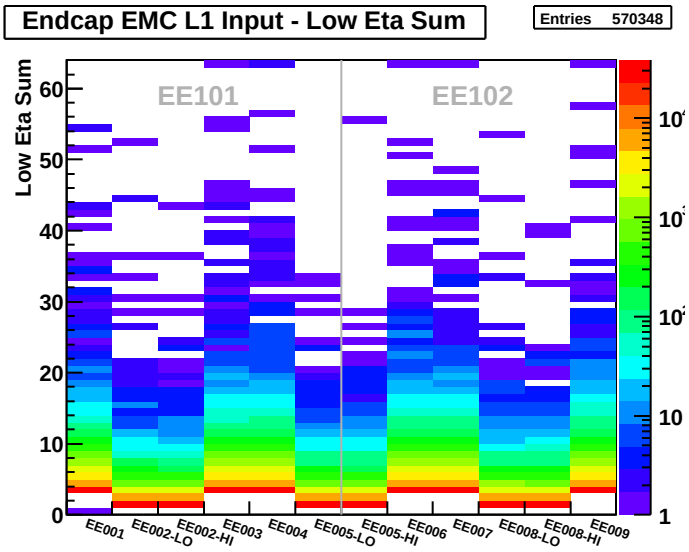

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

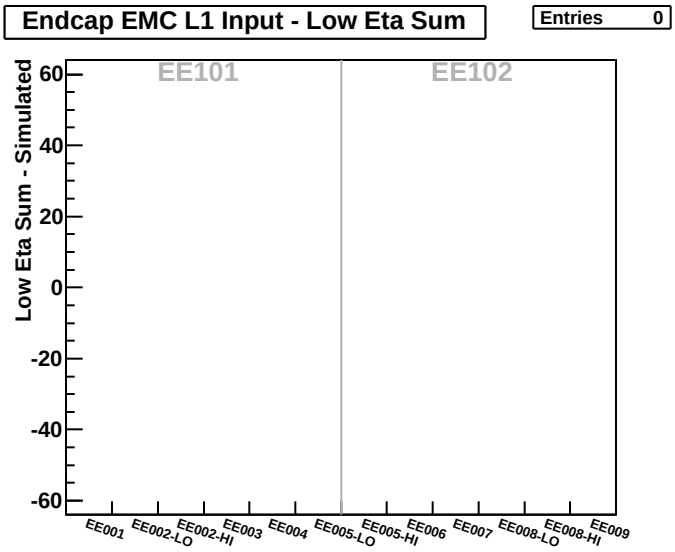

Barrel EMC L1 Input - High Eta Sum
Entries 1711044
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

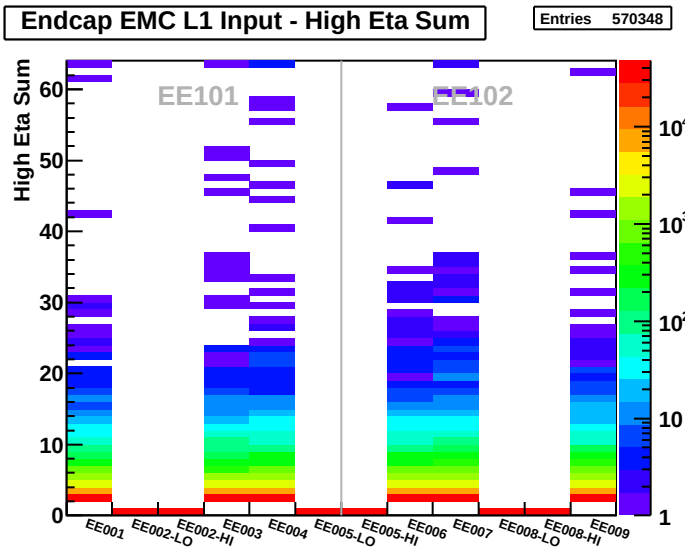

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

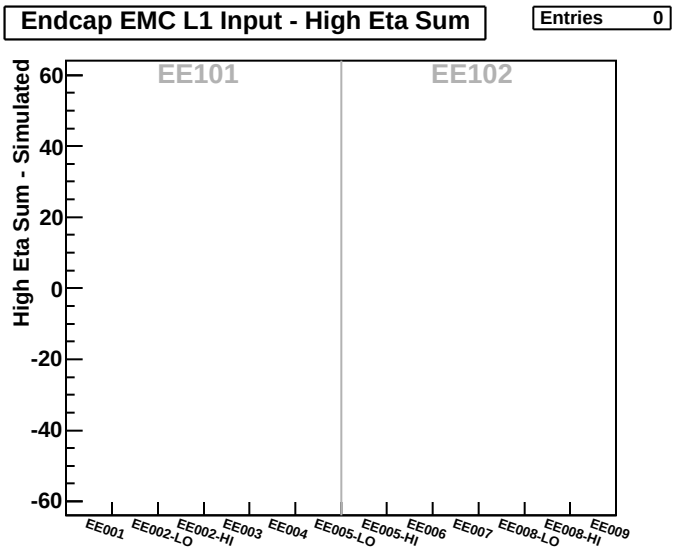

Barrel EMC L1 Input - High Tower Bits
Entries 1711044
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

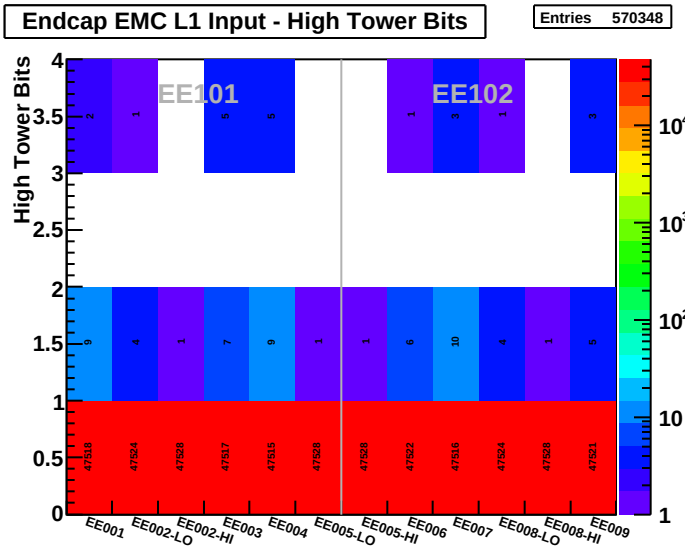

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

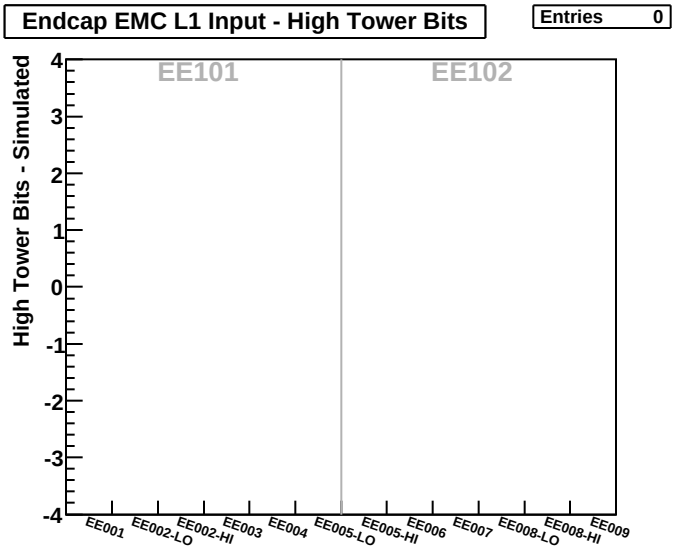

Endcap EMC L1 Input - Low Eta Sum
Entries 570348
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

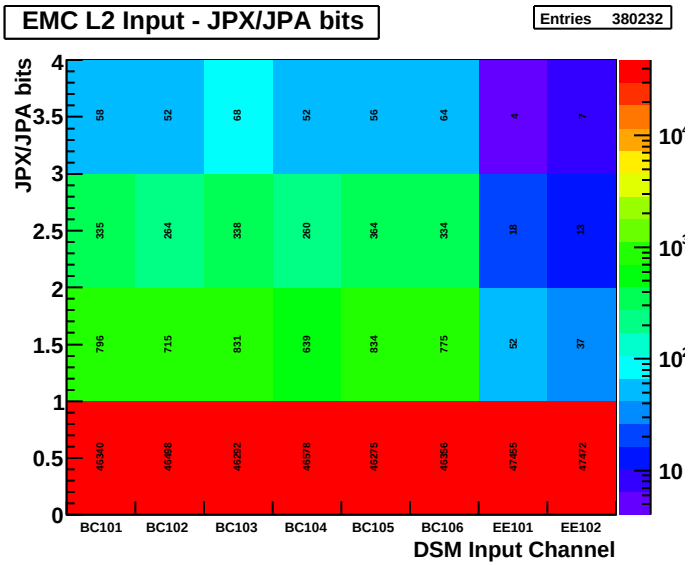

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

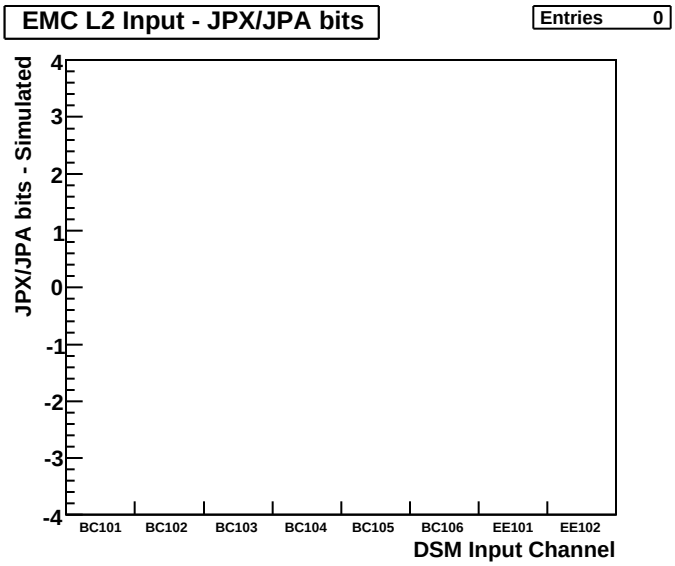

Endcap EMC L1 Input - High Eta Sum
Entries 570348
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

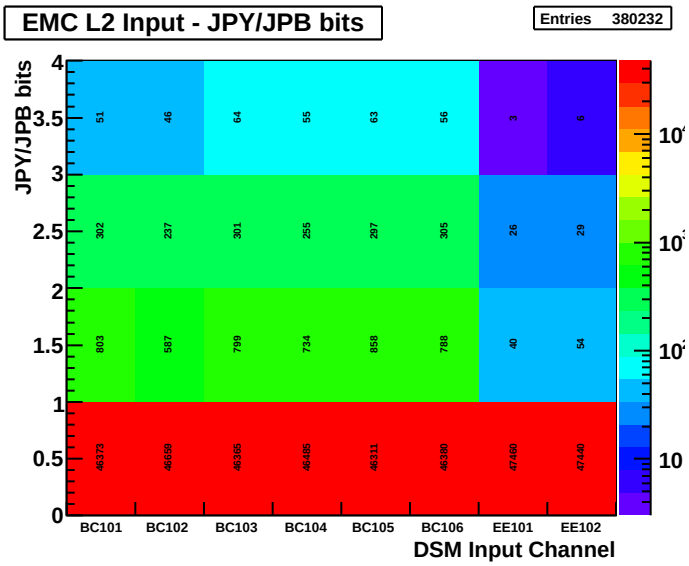

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

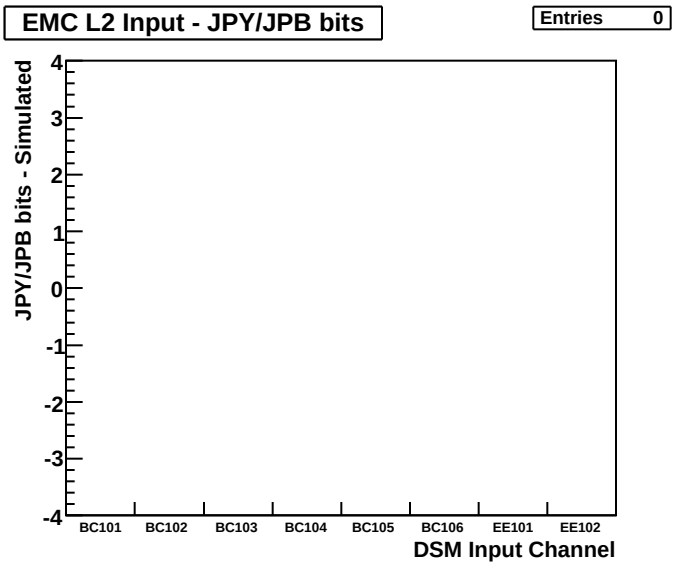

Endcap EMC L1 Input - High Tower Bits
Entries 570348
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

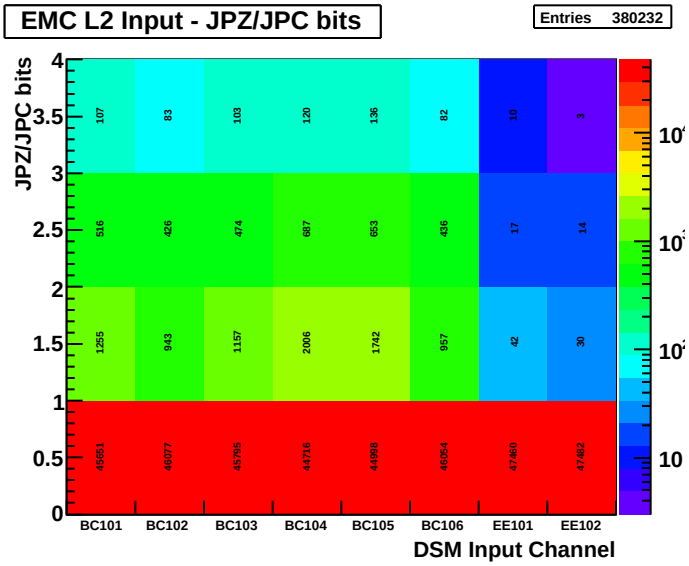

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

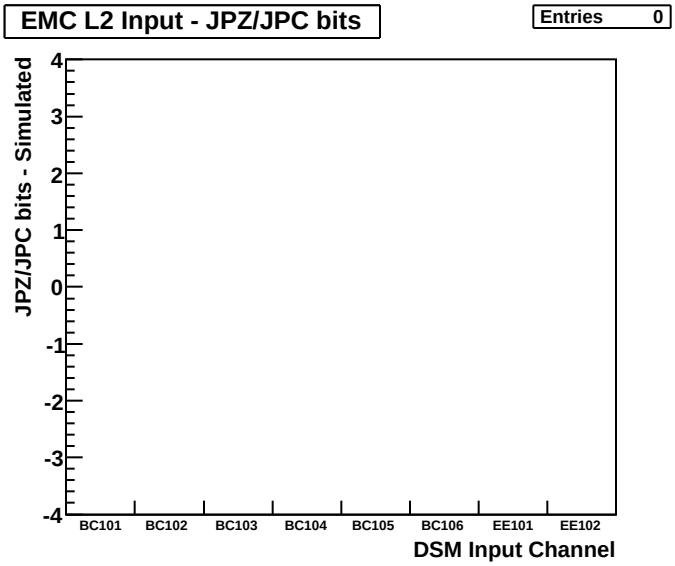

EMC L2 Input - JPX/JPA bits
Entries 380232
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
58 52 68 52 56 64 4 7
335 264 338 260 364 334 18 13
796 715 831 639 834 775 52 37
46340 46498 46292 46578 46275 46356 47455 47472

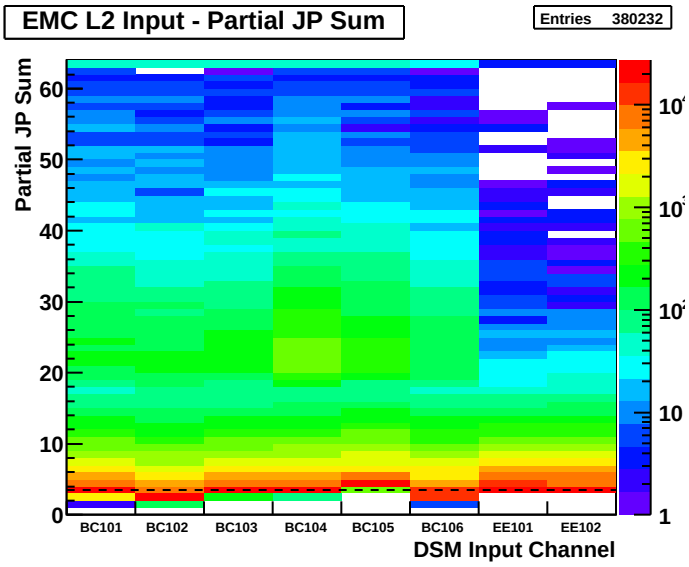

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

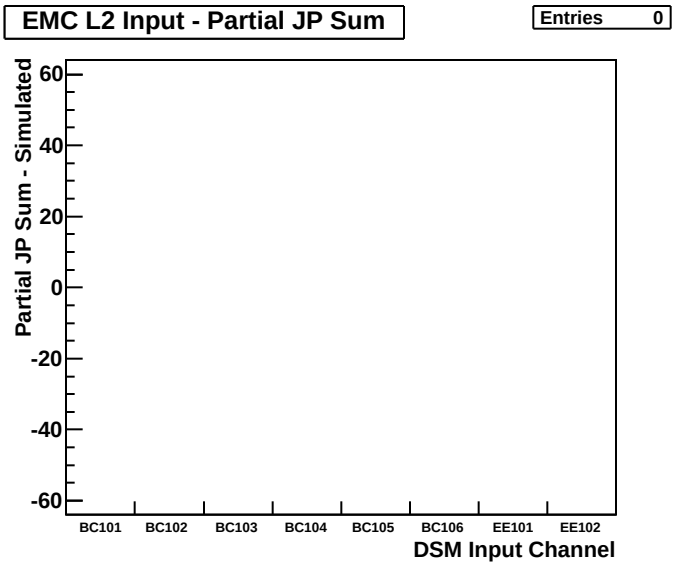

EMC L2 Input - JPY/JPB bits
Entries 380232
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
51 46 64 55 63 56 3 6
302 237 301 255 297 305 26 29
803 587 799 734 858 788 40 54
46373 46659 46365 46485 46311 46380 47460 47440

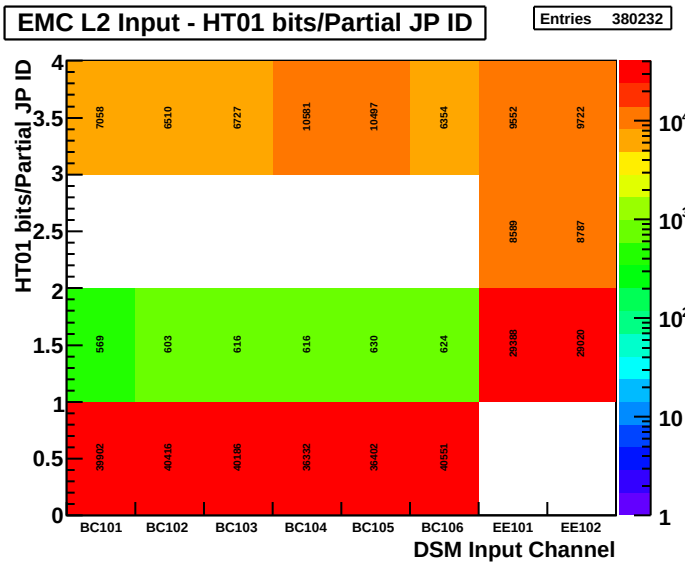

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

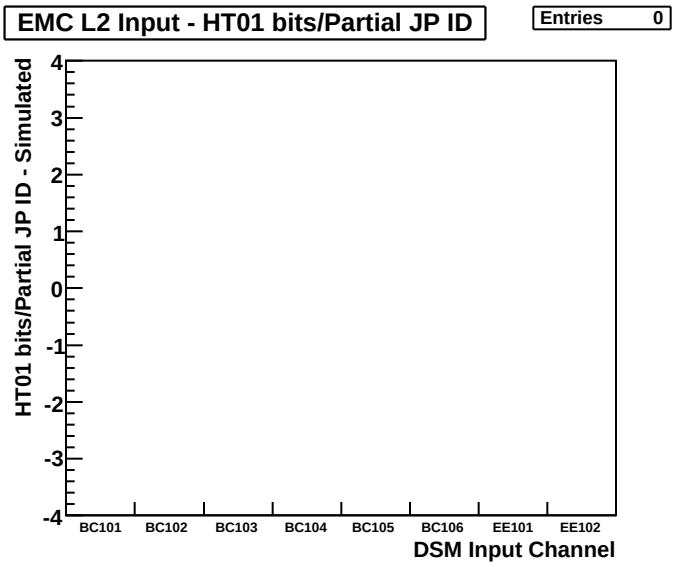

EMC L2 Input - JPZ/JPC bits
Entries 380232
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
107 83 103 120 136 82 10 3
516 426 474 687 653 436 17 14
1255 943 1157 2006 1742 957 42 30
45651 46077 45795 44716 44998 46054 47460 47482

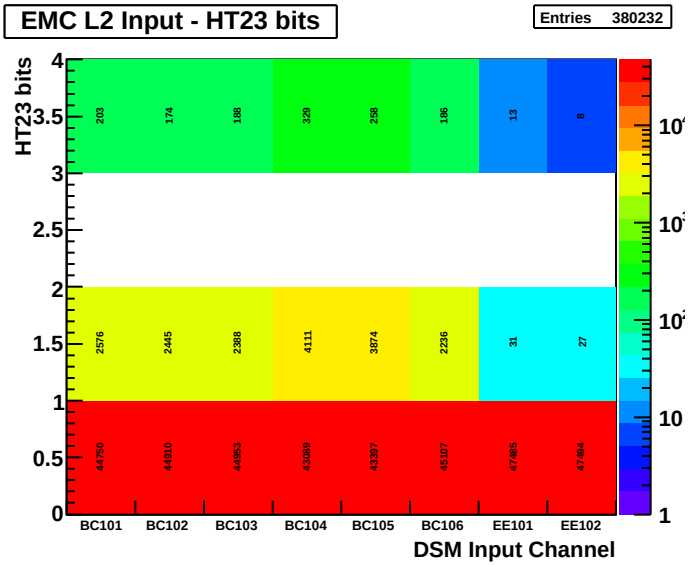

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

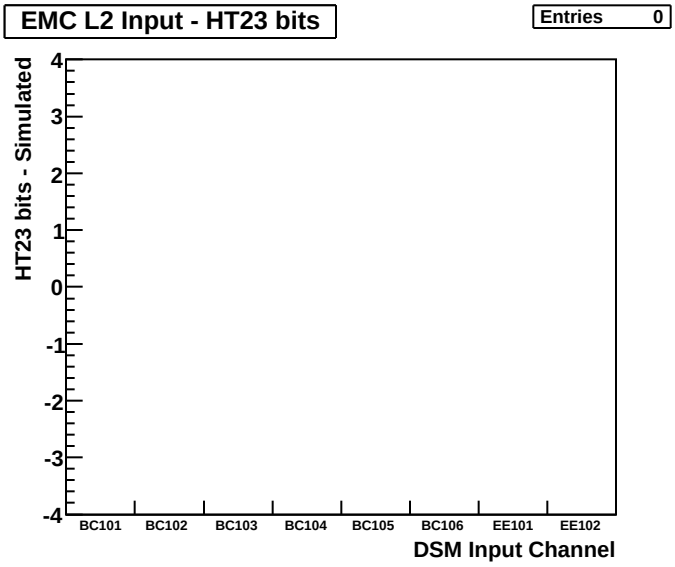

EMC L2 Input - Partial JP Sum
Entries 380232
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

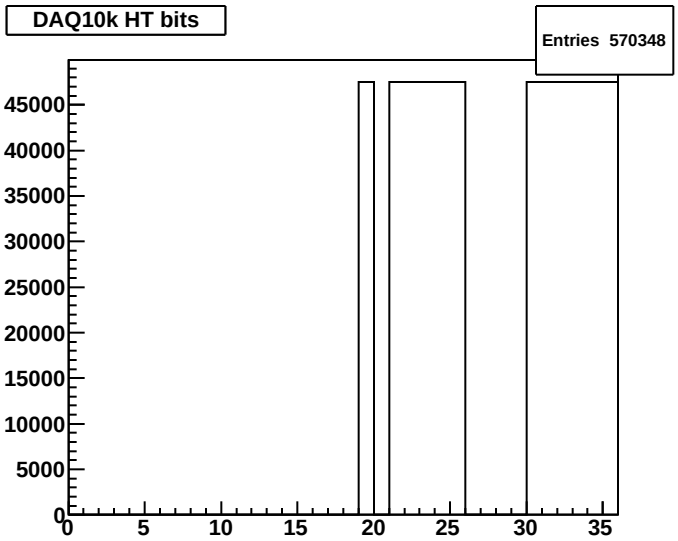

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

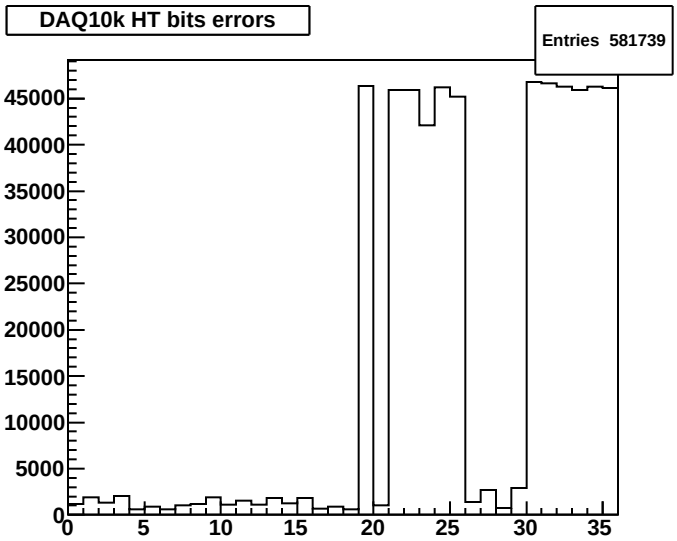

EMC L2 Input - HT01 bits/Partial JP ID
Entries 380232
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

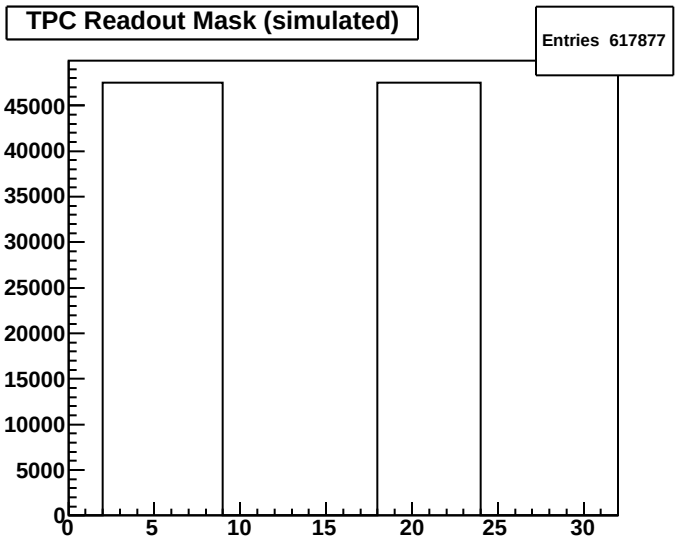

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

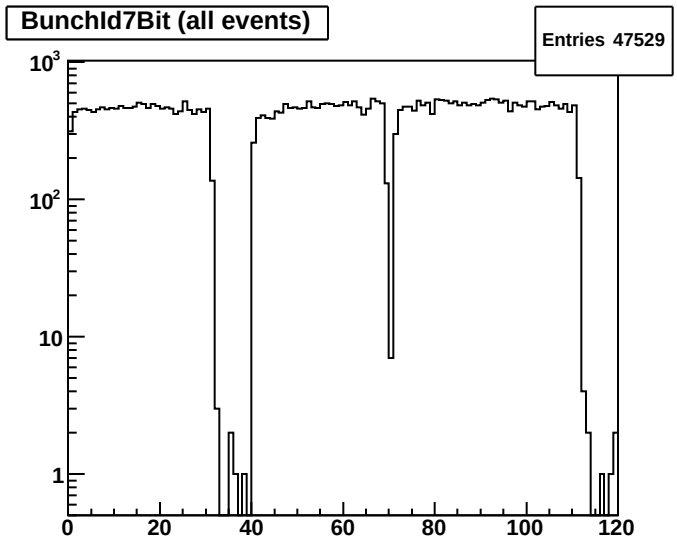

EMC L2 Input - HT23 bits
Entries 380232
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

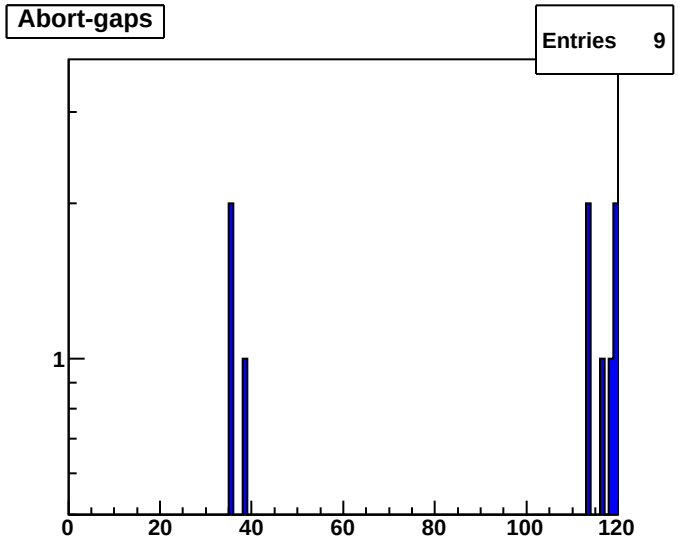

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

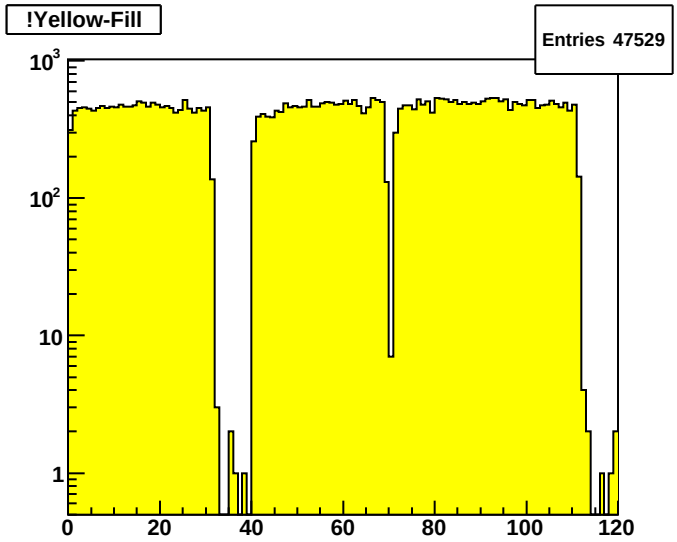

DAQ10k HT bits
Entries 570348
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

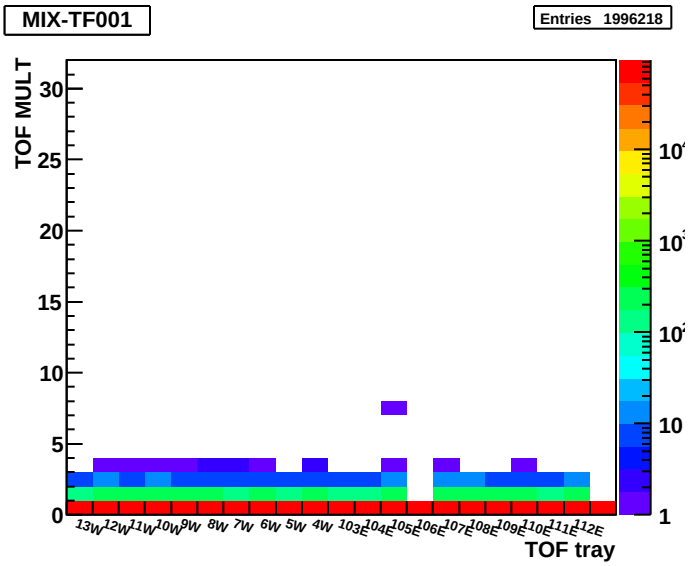

DAQ10k HT bits errors
Entries 581739
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

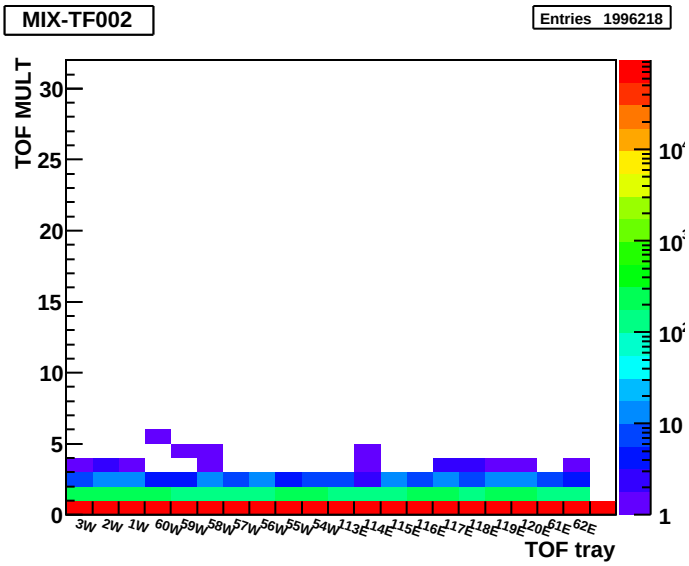

TPC Readout Mask (simulated)
Entries 617877
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

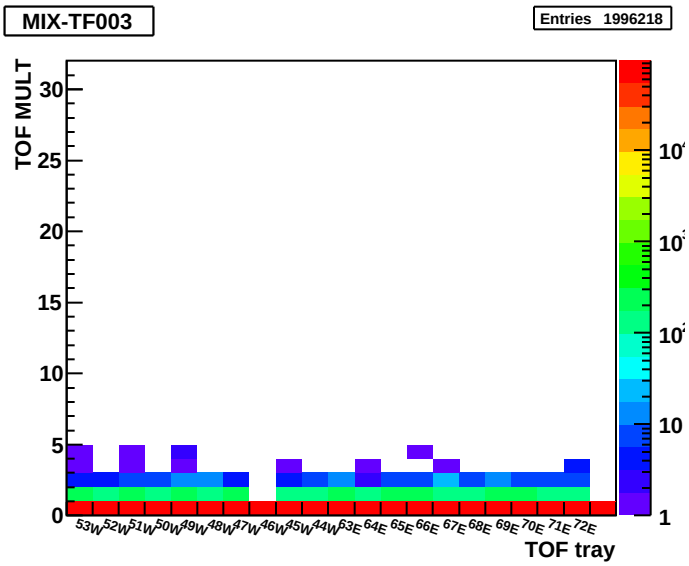

BunchId7Bit (all events)
Entries 47529
10^3
10^2
10
1
0 20 40 60 80 100 120

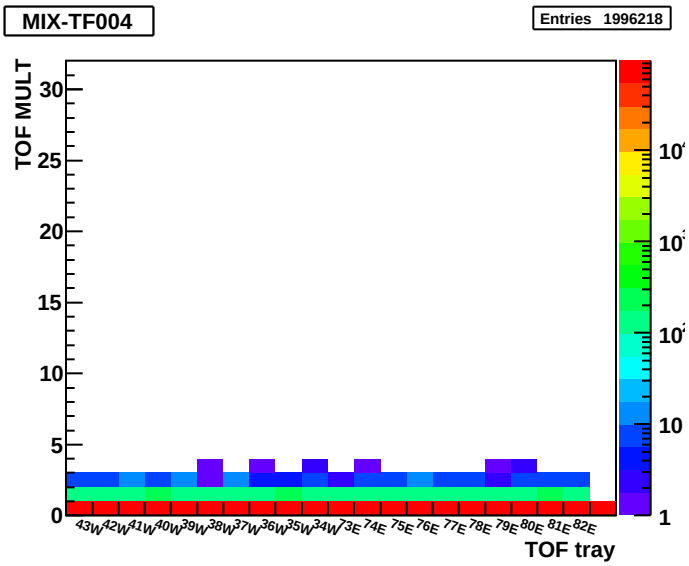

Abort-gaps
Entries 9
1
0 20 40 60 80 100 120

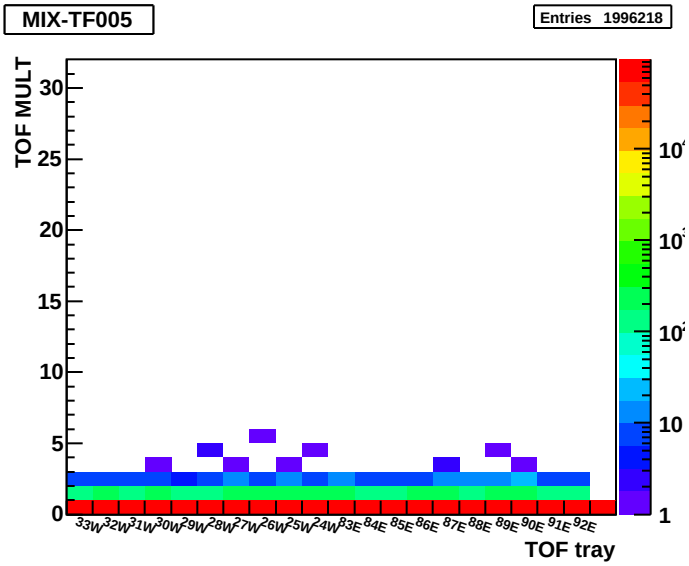

!Yellow-Fill
Entries 47529
10^3
10^2
10
1
0 20 40 60 80 100 120

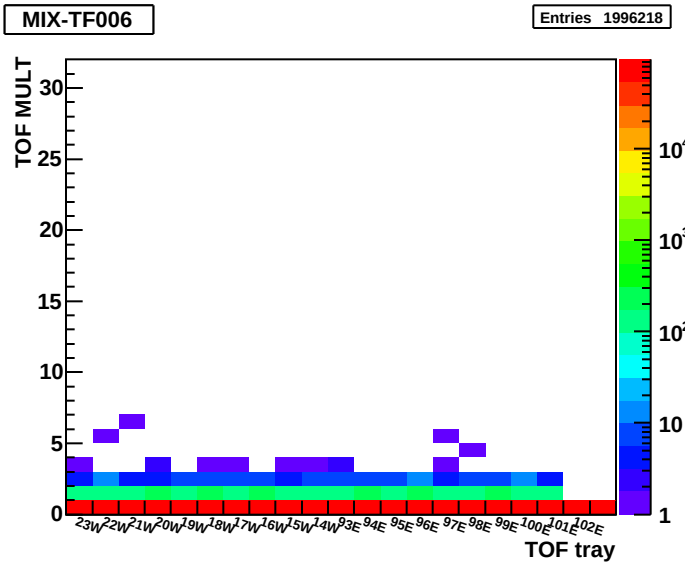

MIX-TF001
Entries 1996218
TOF MULT
TOF tray

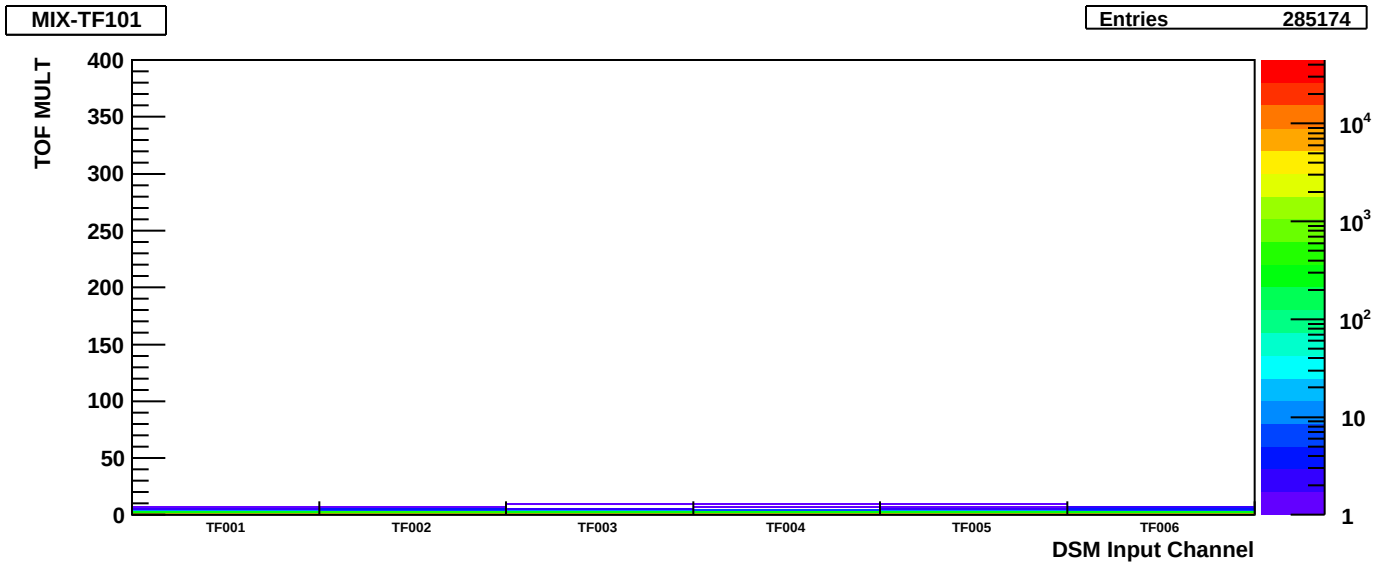

MIX-TF002
Entries 1996218
TOF MULT
TOF tray

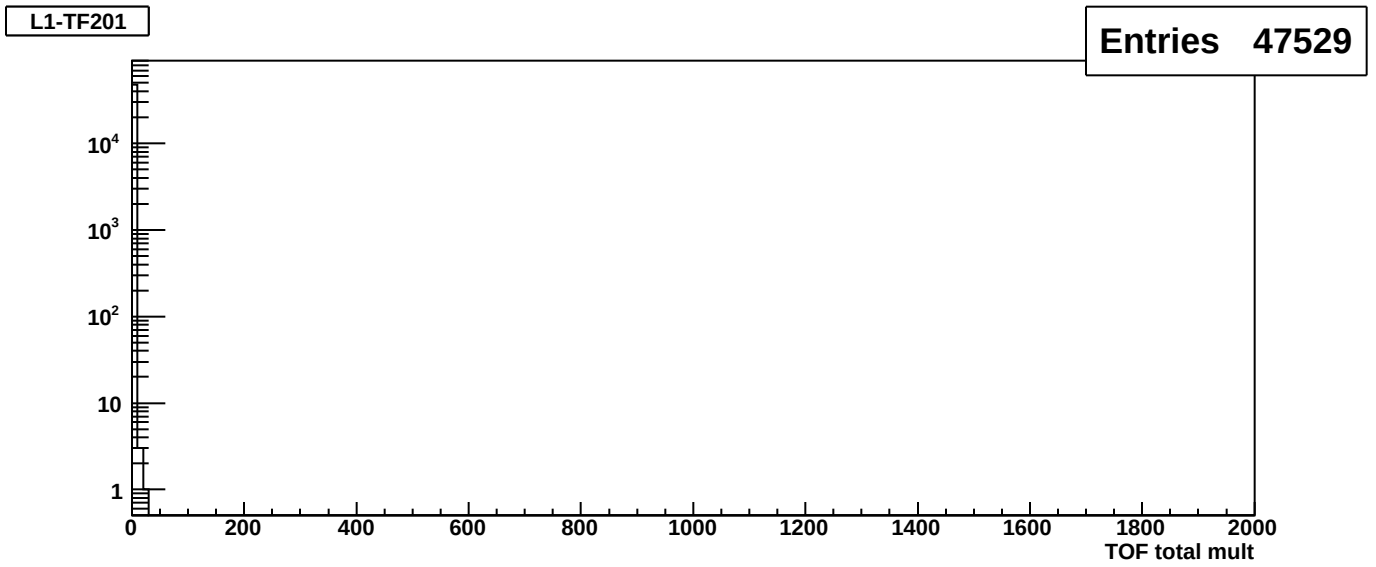

MIX-TF003
Entries 1996218
TOF MULT
TOF tray

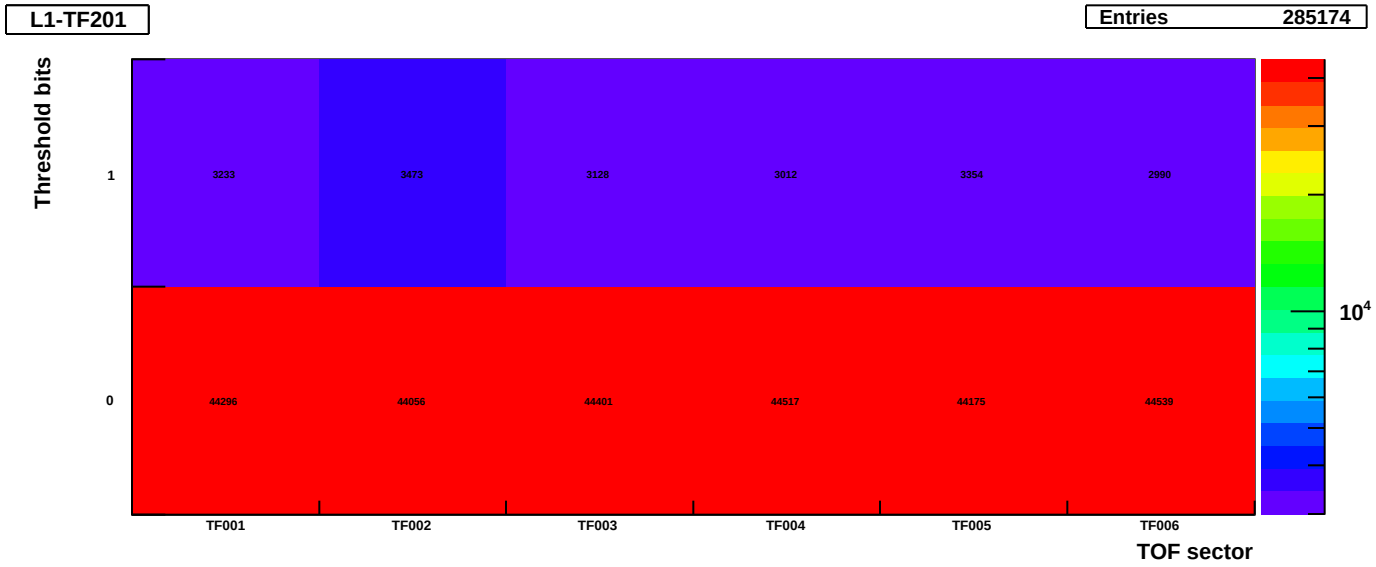

MIX-TF004
Entries 1996218
TOF MULT
TOF tray

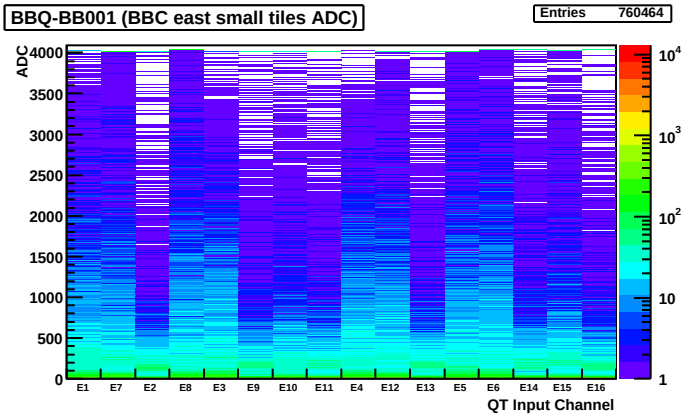

MIX-TF005
Entries 1996218
TOF MULT
TOF tray

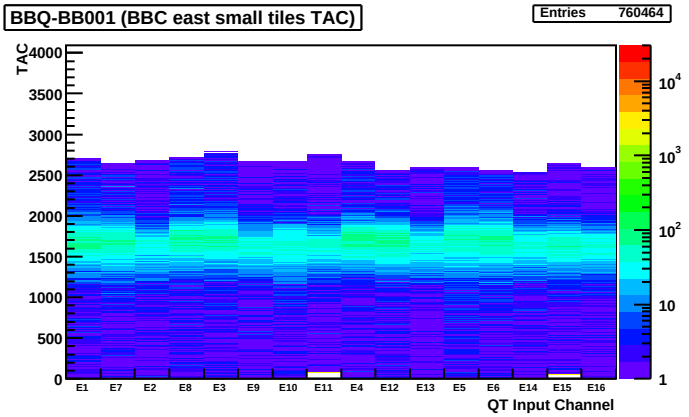

MIX-TF006
Entries 1996218
TOF MULT
TOF tray

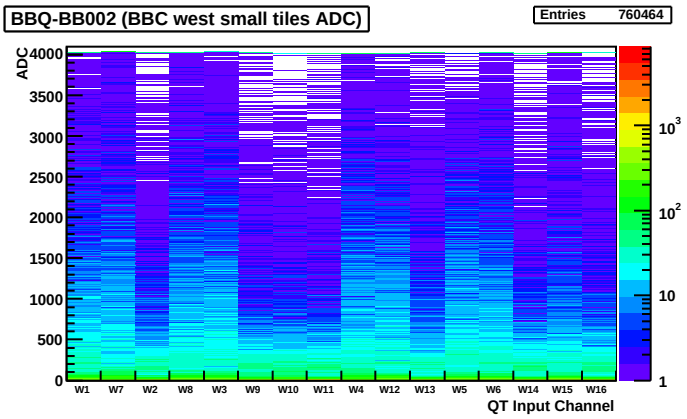

MIX-TF101
Entries 285174
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

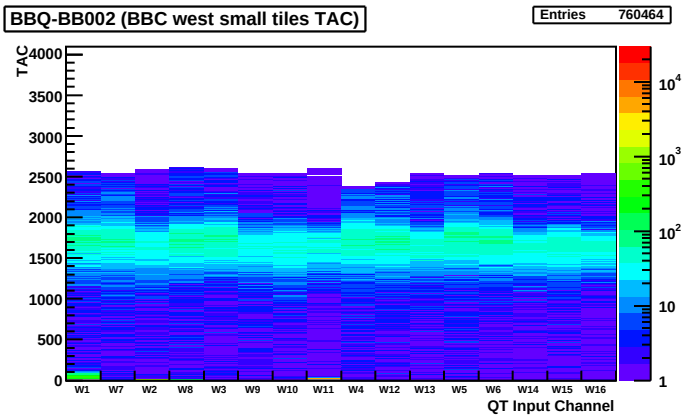

L1-TF201
Entries 47529
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

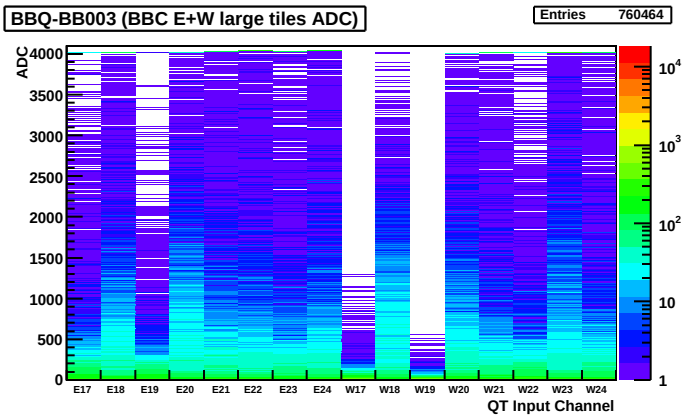

L1-TF201
Entries 285174
Threshold bits
1
0
3233
3473
3128
3012
3354
2990
44296
44056
44401
44517
44175
44539
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

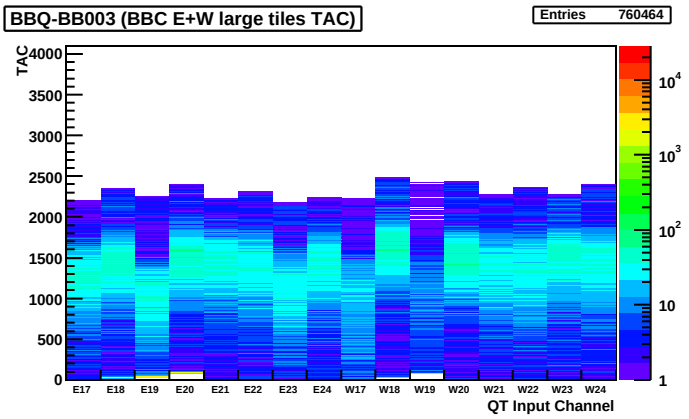

BBQ-BB001 (BBC east small tiles ADC)
Entries 760464
ADC
QT Input Channel

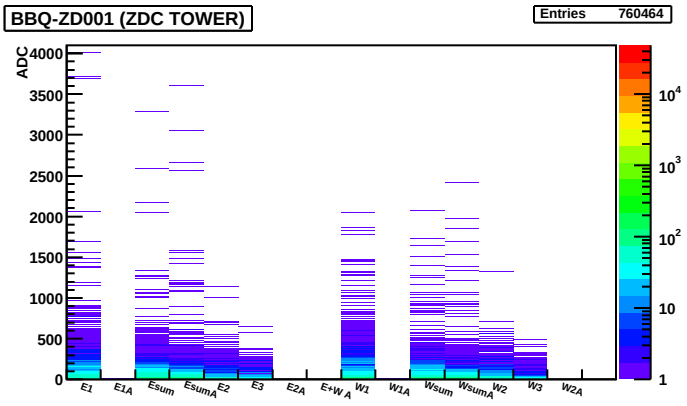

BBQ-BB001 (BBC east small tiles TAC)
Entries 760464
TAC
QT Input Channel

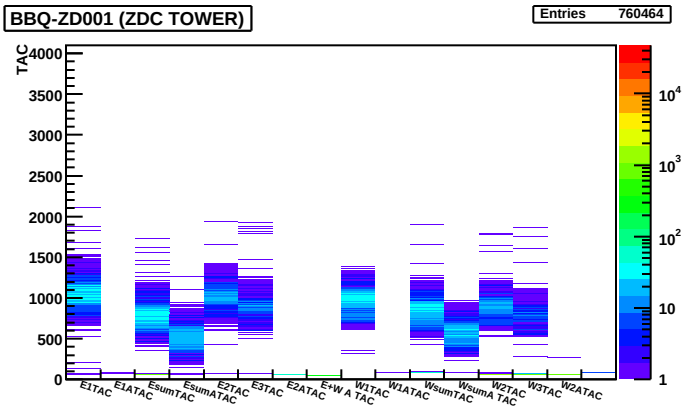

BBQ-BB002 (BBC west small tiles ADC)
Entries 760464
ADC
QT Input Channel

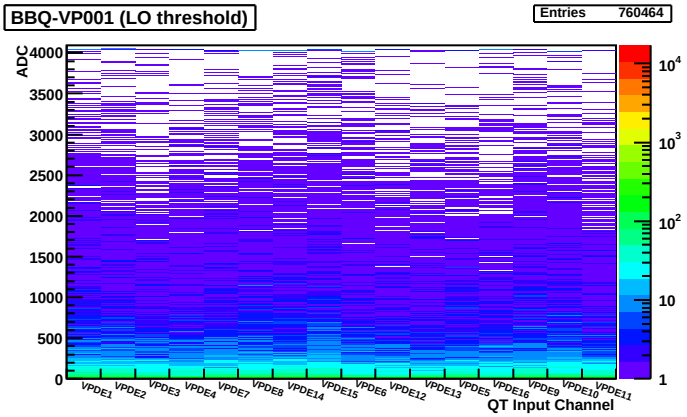

BBQ-BB002 (BBC west small tiles TAC)
Entries 760464
TAC
QT Input Channel

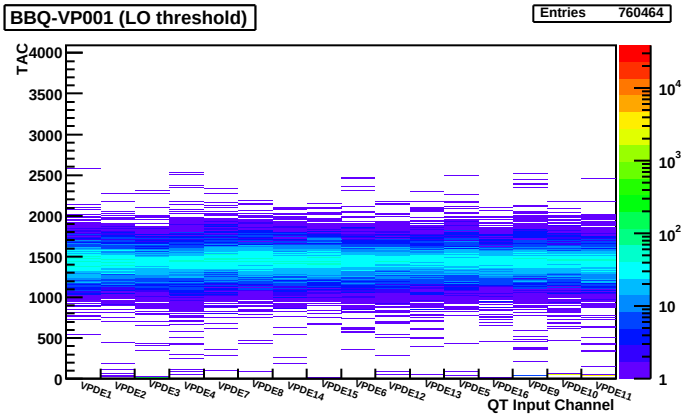

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 760464
ADC
QT Input Channel

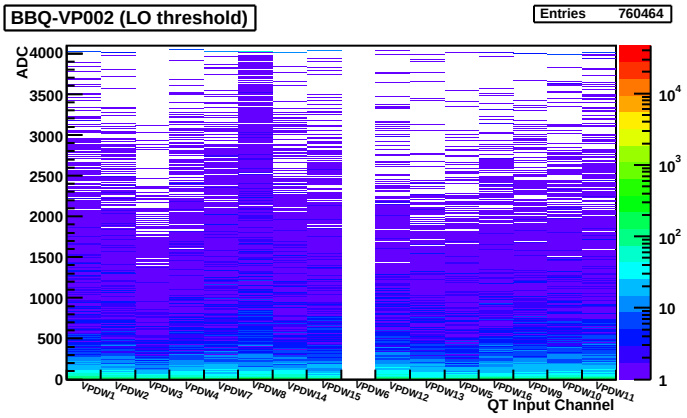

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 760464
TAC
QT Input Channel

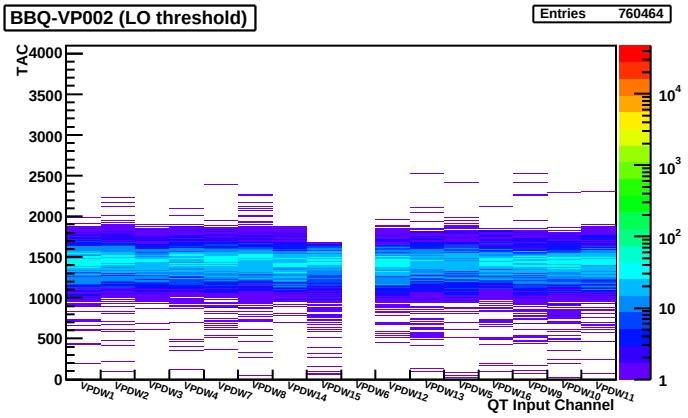

BBQ-ZD001 (ZDC TOWER)
Entries 760464
ADC

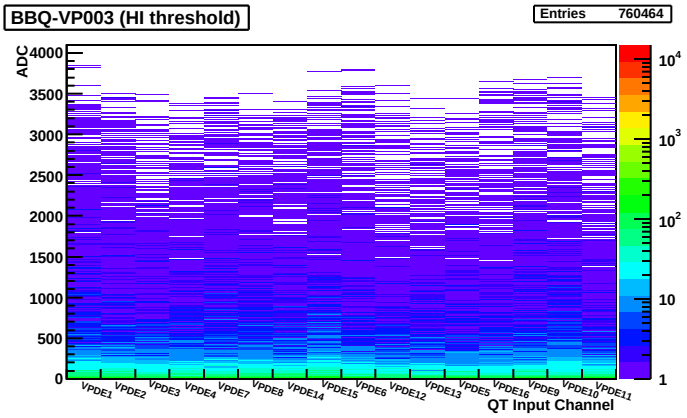

BBQ-ZD001 (ZDC TOWER)
Entries 760464
TAC

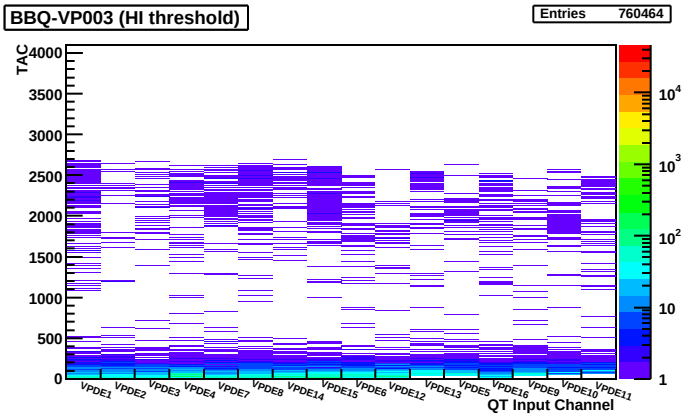

BBQ-VP001 (LO threshold)
Entries 760464
ADC
QT Input Channel

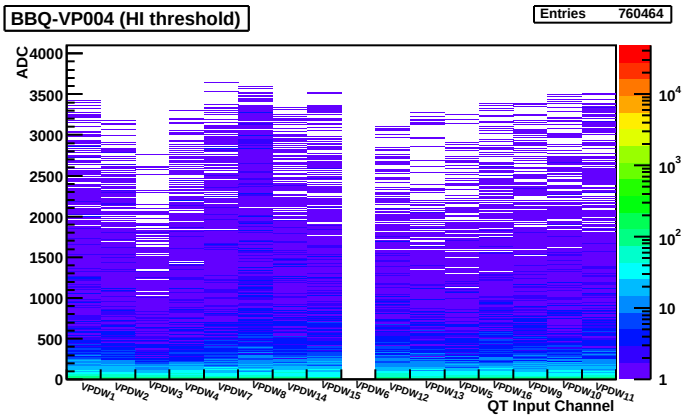

BBQ-VP001 (LO threshold)
Entries 760464
TAC
QT Input Channel

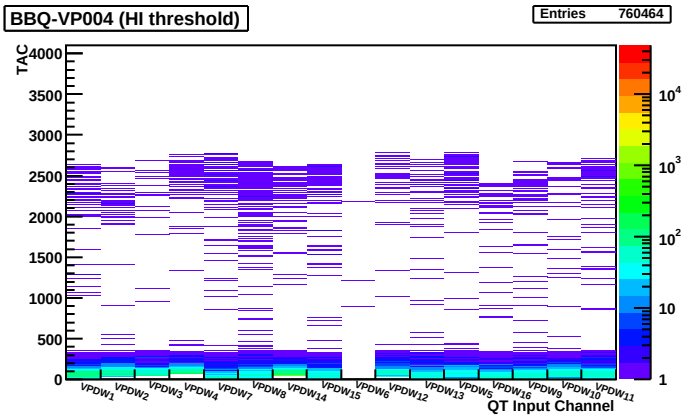

BBQ-VP002 (LO threshold)
Entries 760464
ADC
QT Input Channel

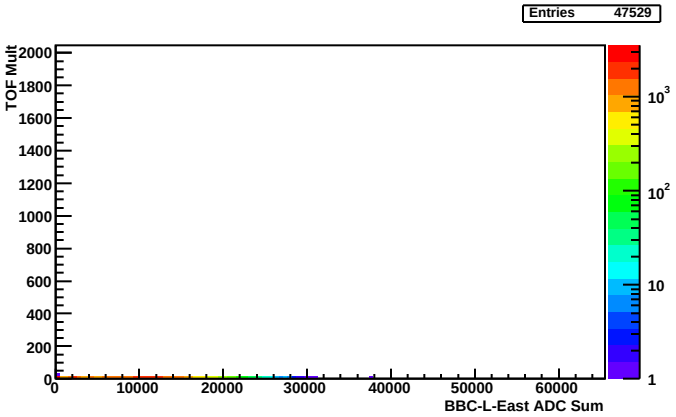

BBQ-VP002 (LO threshold)
Entries 760464
TAC
QT Input Channel

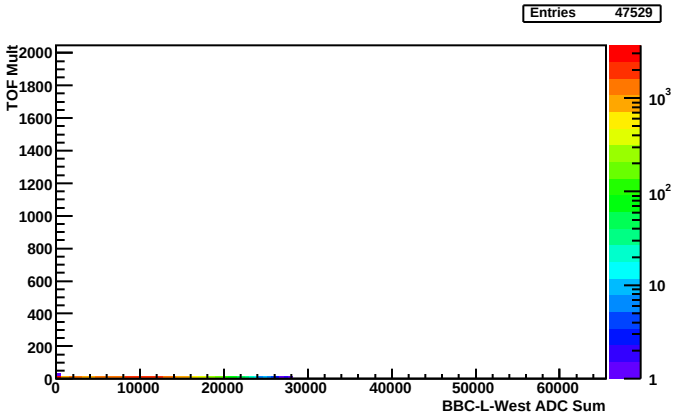

BBQ-VP003 (HI threshold)
Entries 760464
ADC
QT Input Channel

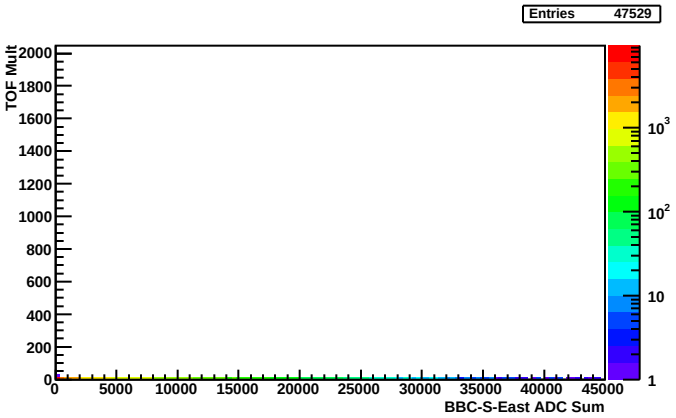

BBQ-VP003 (HI threshold)
Entries 760464
TAC
QT Input Channel

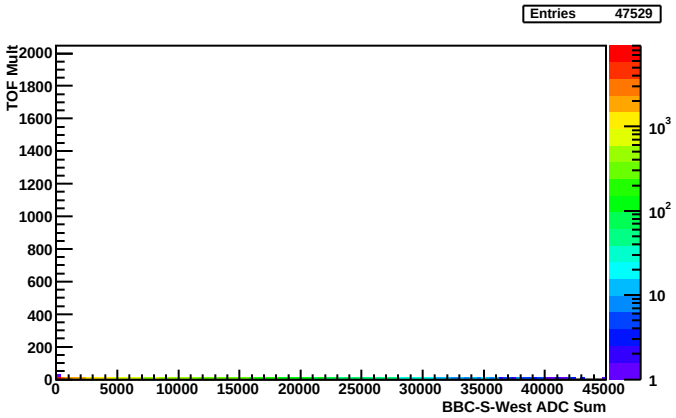

BBQ-VP004 (HI threshold)
Entries 760464
ADC
QT Input Channel

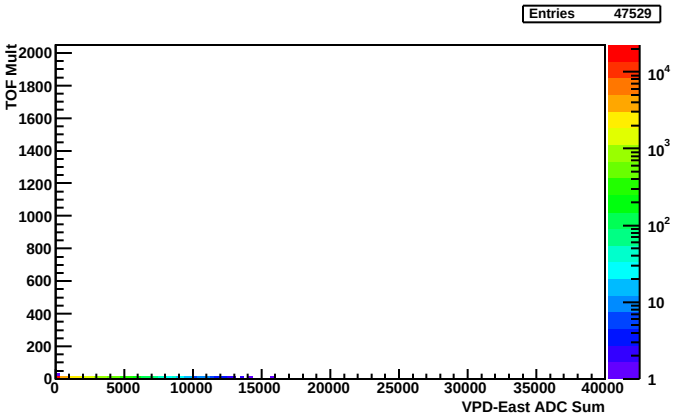

BBQ-VP004 (HI threshold)
Entries 760464
TAC
QT Input Channel

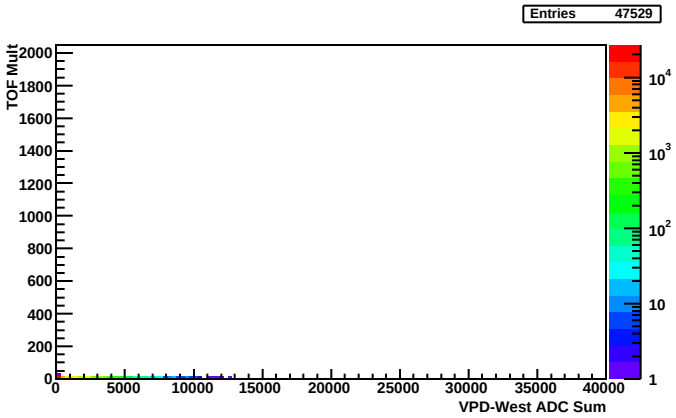

Entries 47529
TOF Mult
BBC-L-East ADC Sum

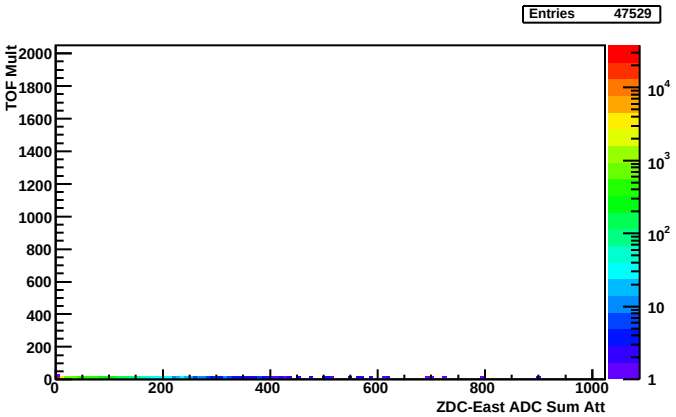

Entries 47529
TOF Mult
BBC-L-West ADC Sum

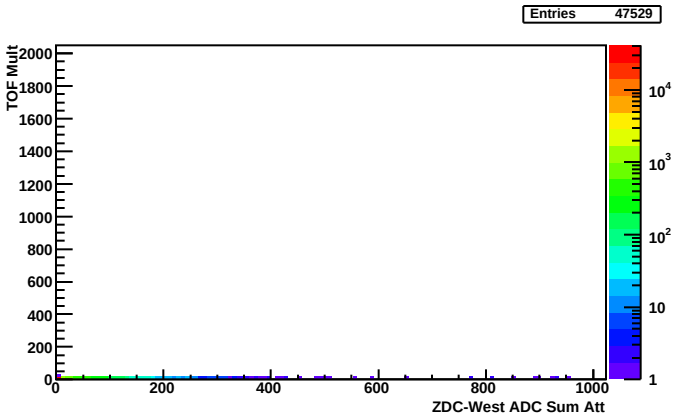

Entries 47529
TOF Mult
BBC-S-East ADC Sum

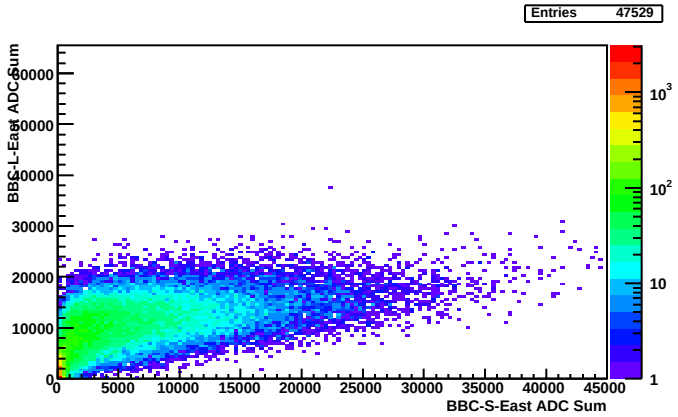

Entries 47529
TOF Mult
BBC-S-West ADC Sum

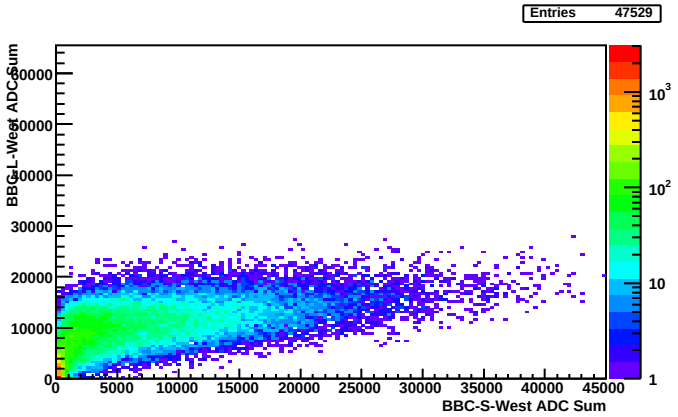

Entries 47529
TOF Mult
VPD-East ADC Sum

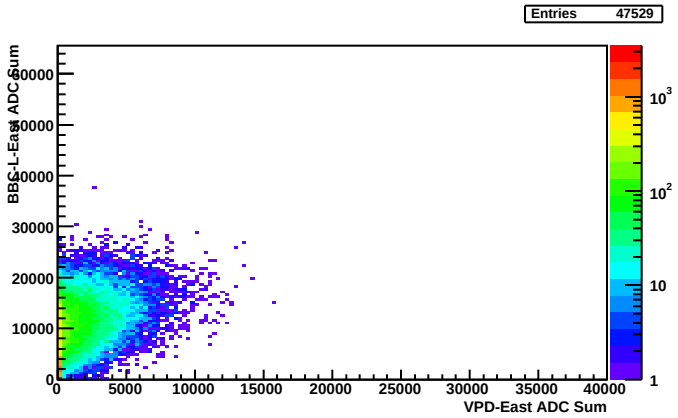

Entries 47529
TOF Mult
VPD-West ADC Sum

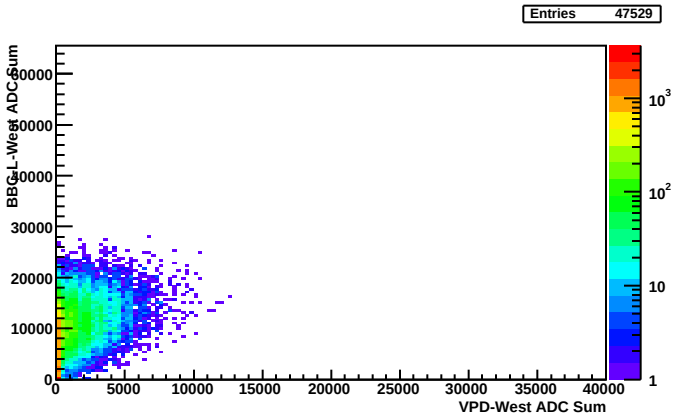

Entries 47529
TOF Mult
ZDC-East ADC Sum Att

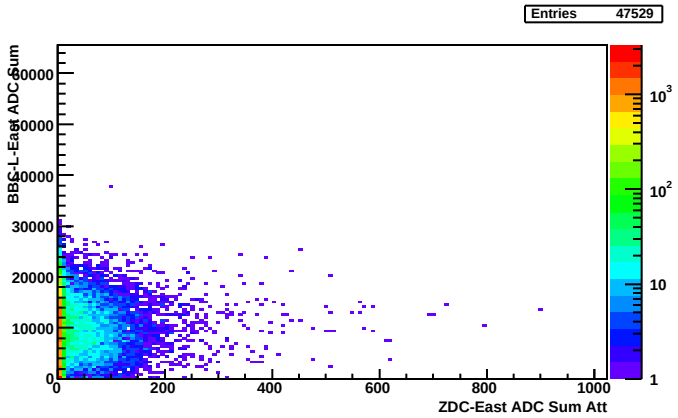

Entries 47529
TOF Mult
ZDC-West ADC Sum Att

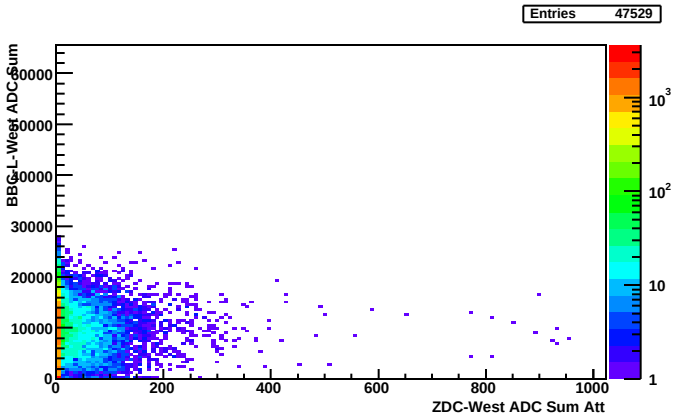

Entries 47529
BBC-L-East ADC Sum
BBC-S-East ADC Sum

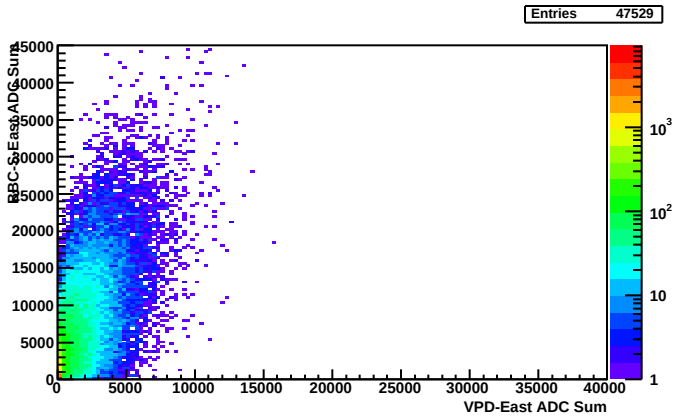

Entries 47529
BBC-L-West ADC Sum
BBC-S-West ADC Sum

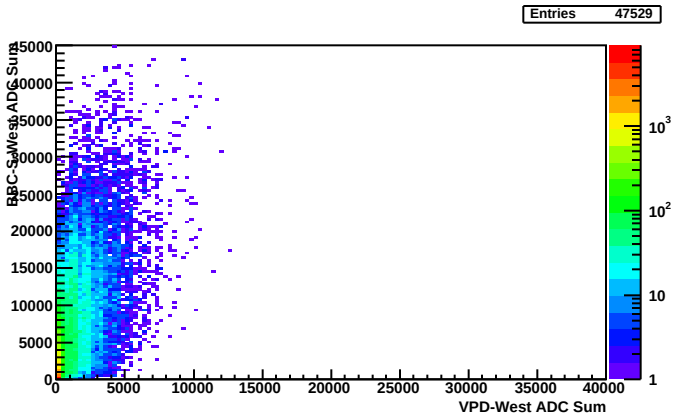

Entries 47529
BBC-L-East ADC Sum
VPD-East ADC Sum

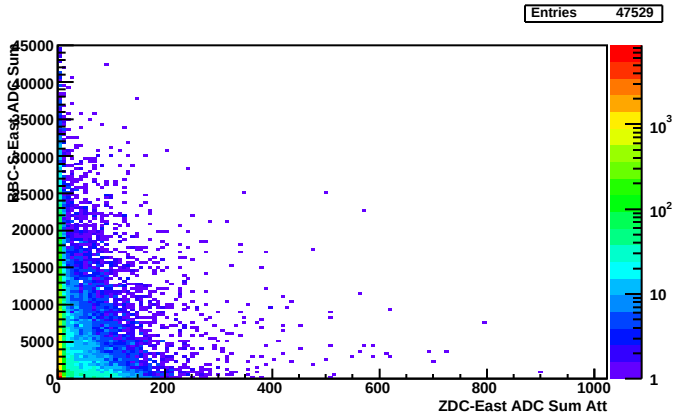

Entries 47529
BBC-L-West ADC Sum
VPD-West ADC Sum

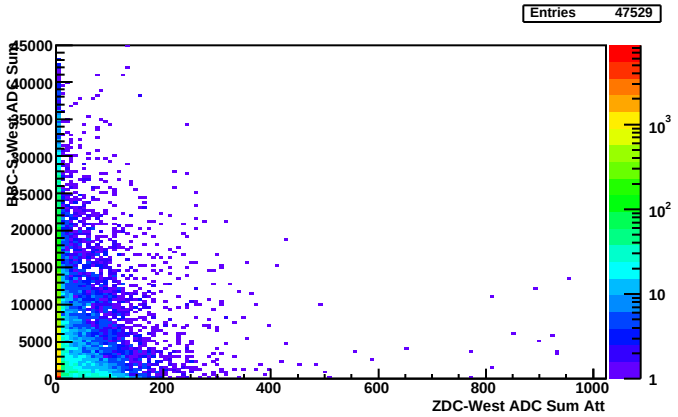

Entries 47529
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

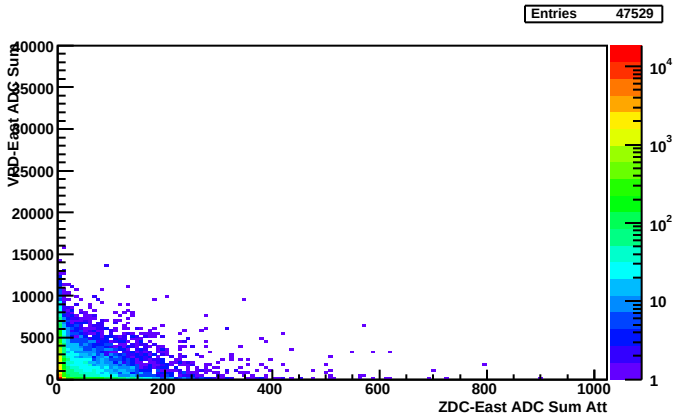

Entries 47529
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

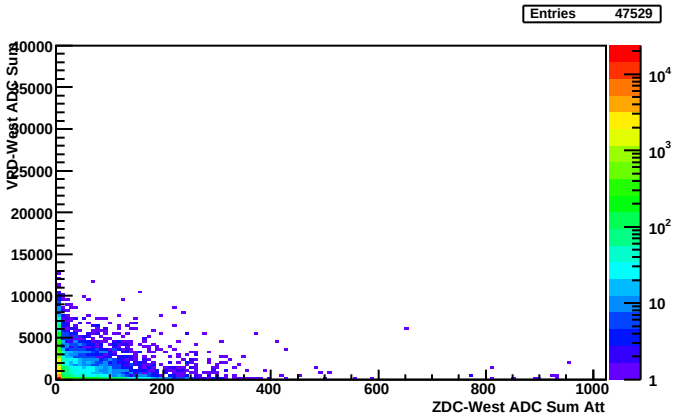

Entries 47529
BBC-S-East ADC Sum
VPD-East ADC Sum

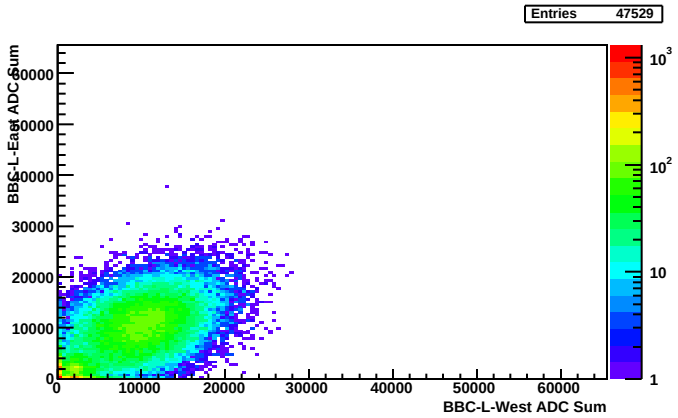

Entries 47529
BBC-S-West ADC Sum
VPD-West ADC Sum

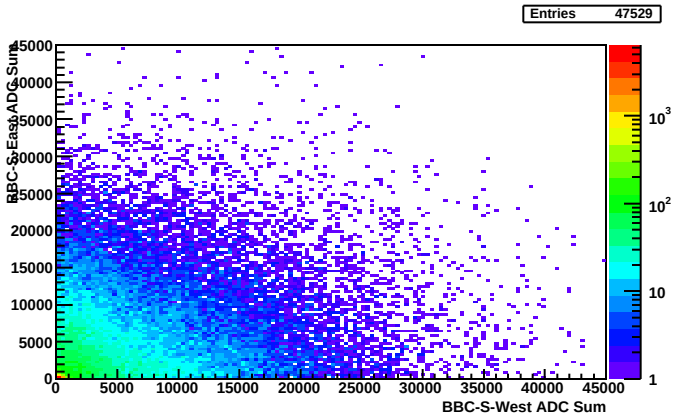

Entries 47529
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

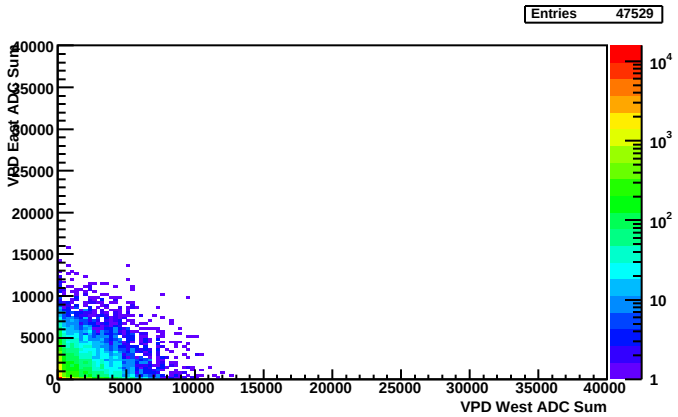

Entries 47529
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

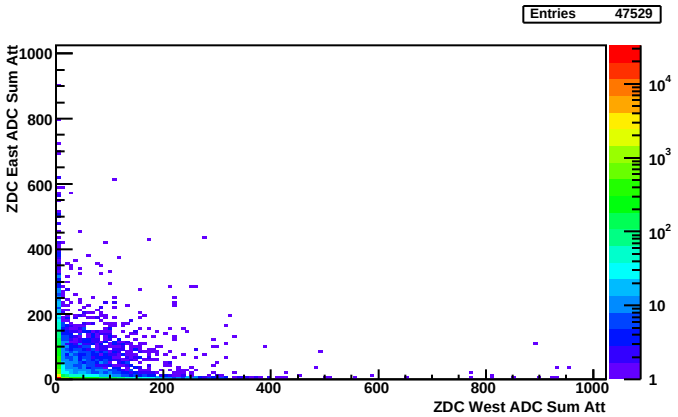

Entries 47529
VPD-East ADC Sum
ZDC-East ADC Sum Att

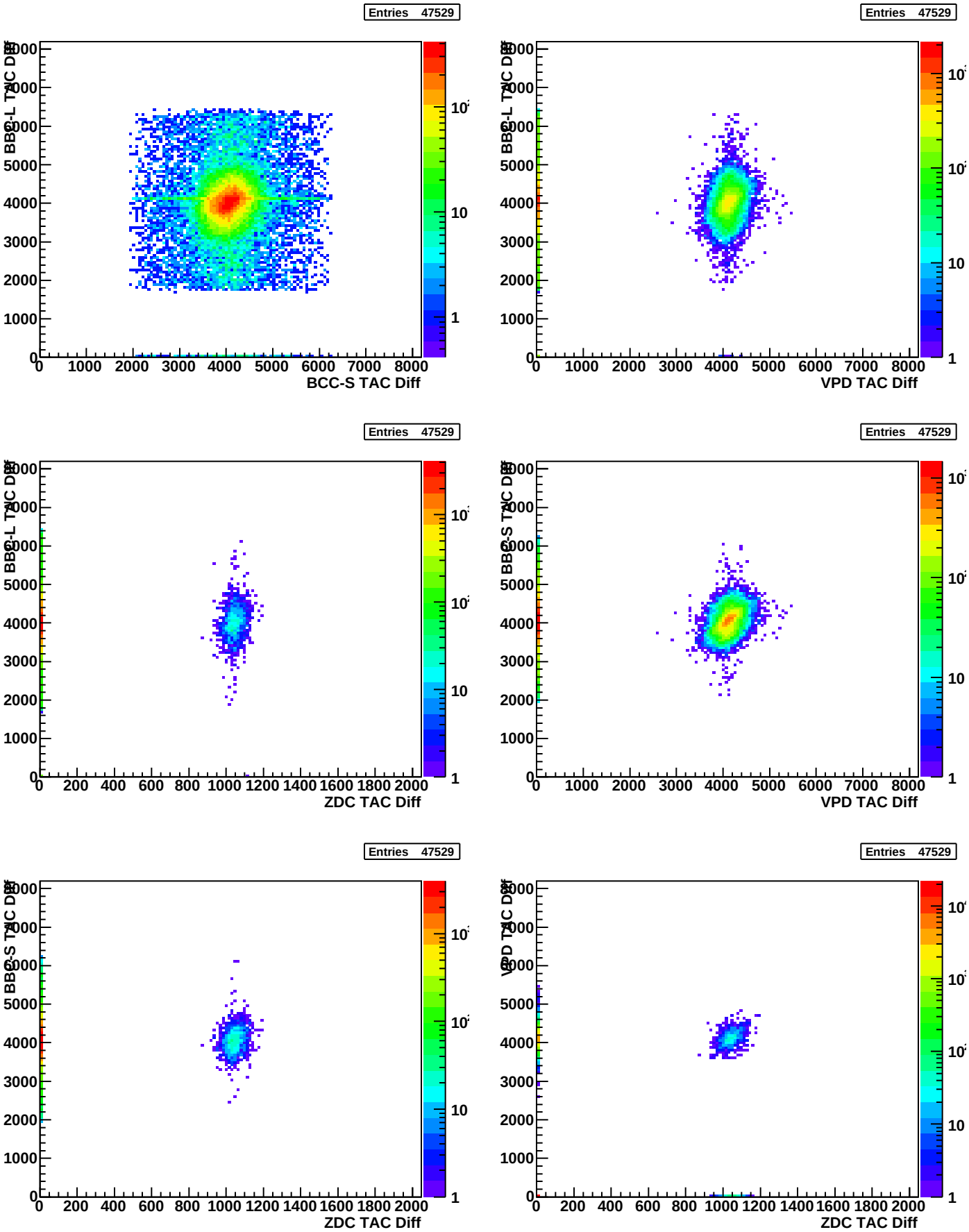

Entries 47529
VPD-West ADC Sum
ZDC-West ADC Sum Att

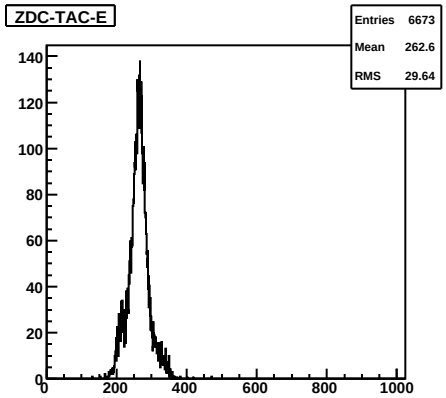

Entries 47529
BBC-L-East ADC Sum
BBC-L-West ADC Sum

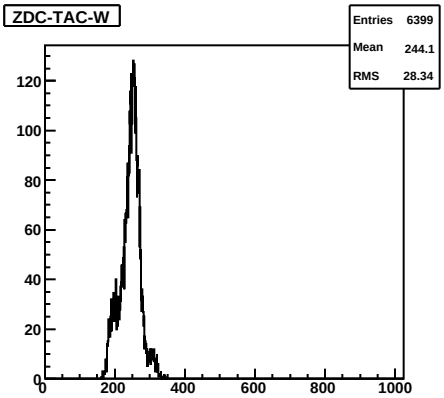

Entries 47529
BBC-S-East ADC Sum
BBC-S-West ADC Sum

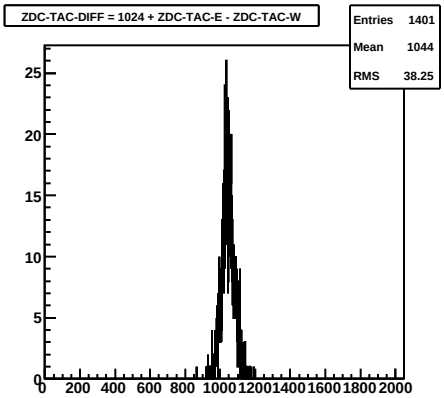

Entries 47529
VPD East ADC Sum
VPD West ADC Sum

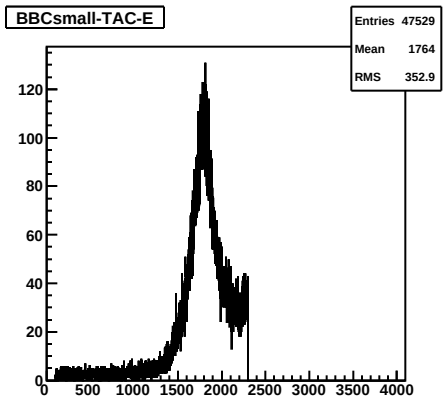

Entries 47529
ZDC East ADC Sum Att
ZDC West ADC Sum Att

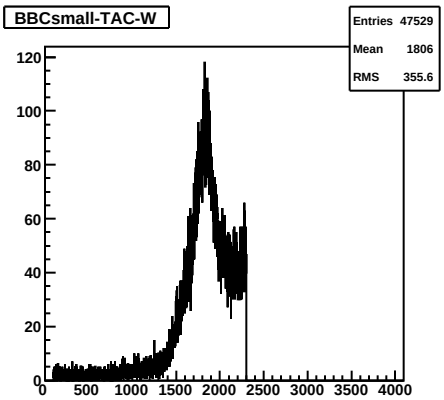

Entries 47529
BBC-L TAC Diff
BCC-S TAC Diff
Entries 47529
BBC-L TAC Diff
VPD TAC Diff
Entries 47529
BBC-L TAC Diff
ZDC TAC Diff
Entries 47529
BBC-S TAC Diff
VPD TAC Diff
Entries 47529
BBC-S TAC Diff
ZDC TAC Diff
Entries 47529
VPD TAC Diff
ZDC TAC Diff

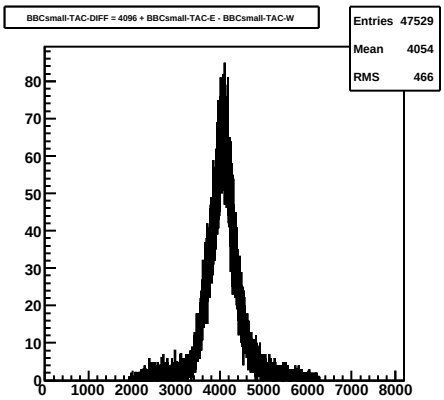

ZDC-TAC-E
Entries 6673
Mean 262.6
RMS 29.64

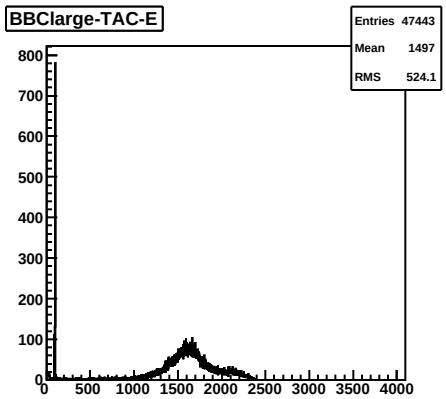

ZDC-TAC-W
Entries 6399
Mean 244.1
RMS 28.34

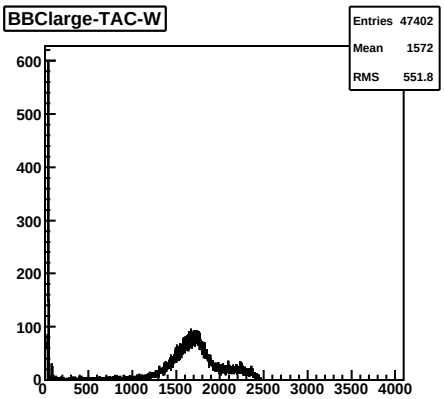

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1401
Mean 1044
RMS 38.25

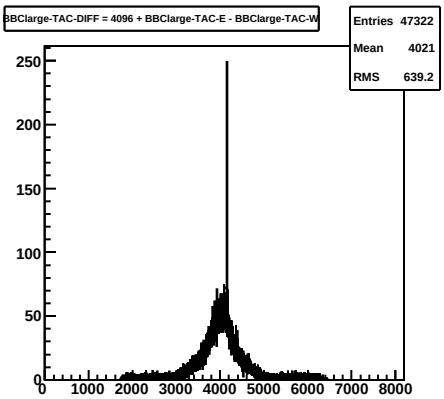

BBCsmall-TAC-E
Entries 47529
Mean 1764
RMS 352.9

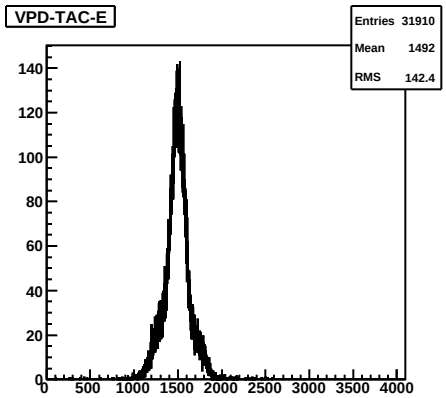

BBCsmall-TAC-W
Entries 47529
Mean 1806
RMS 355.6

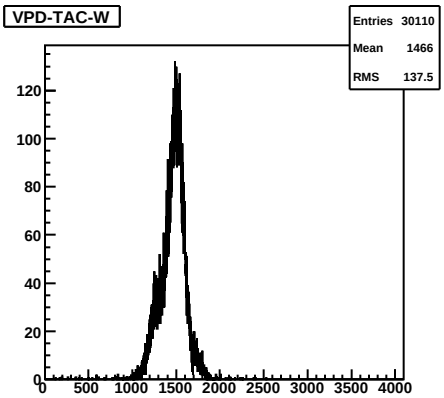

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 47529
Mean 4054
RMS 466

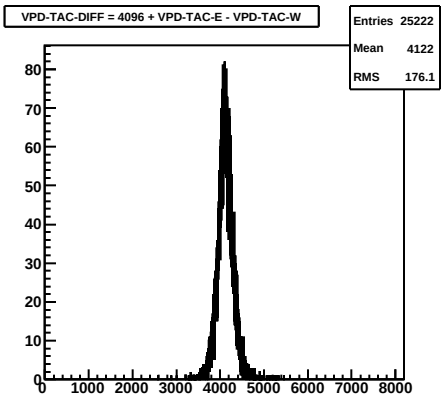

BBClarge-TAC-E
Entries 47443
Mean 1497
RMS 524.1

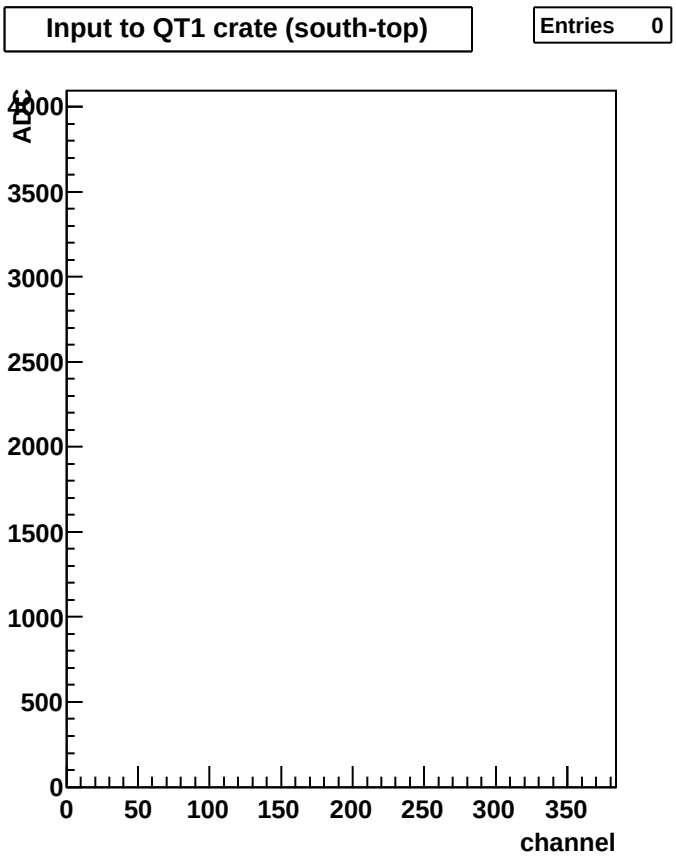

BBClarge-TAC-W
Entries 47402
Mean 1572
RMS 551.8

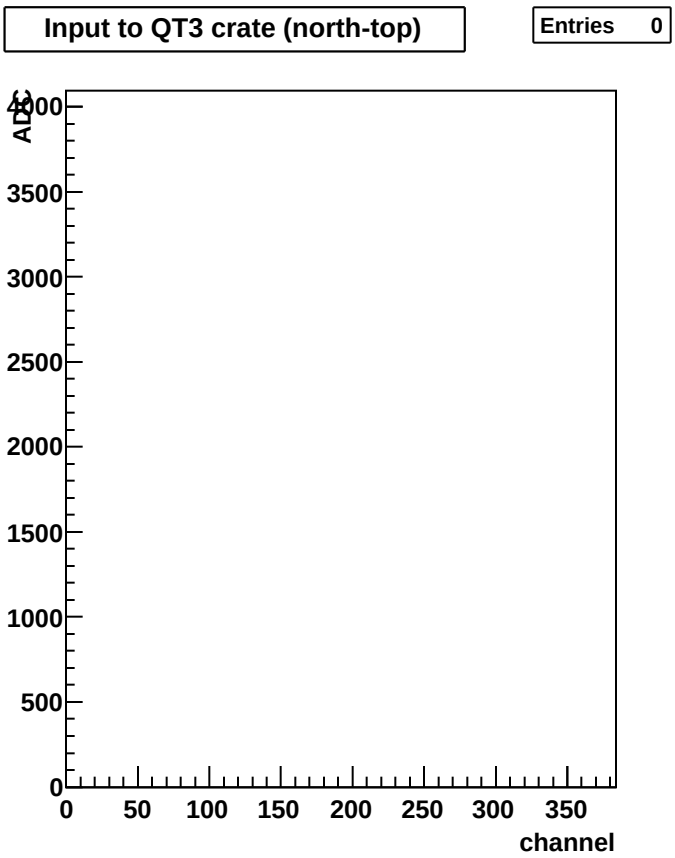

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 47322
Mean 4021
RMS 639.2

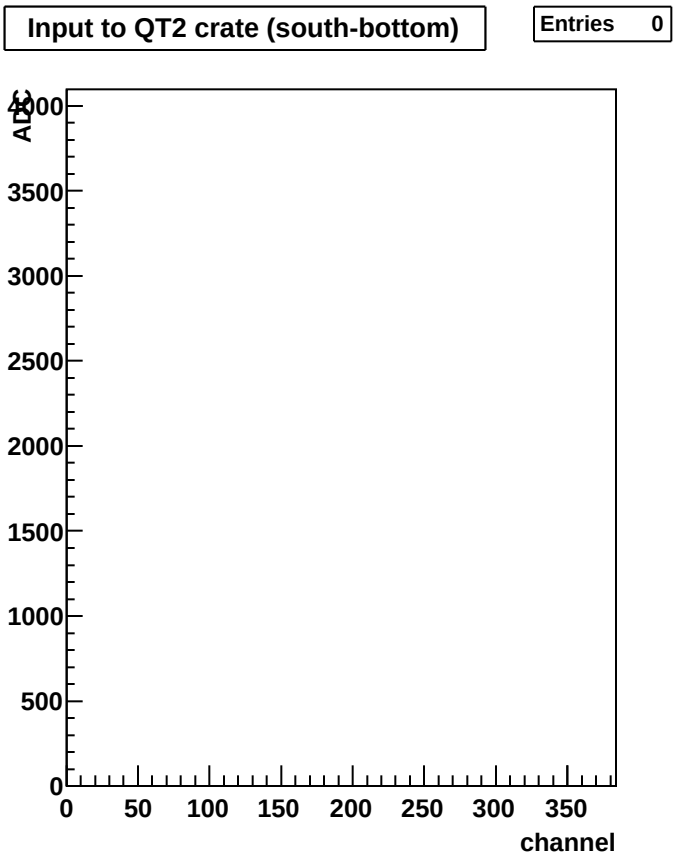

VPD-TAC-E
Entries 31910
Mean 1492
RMS 142.4

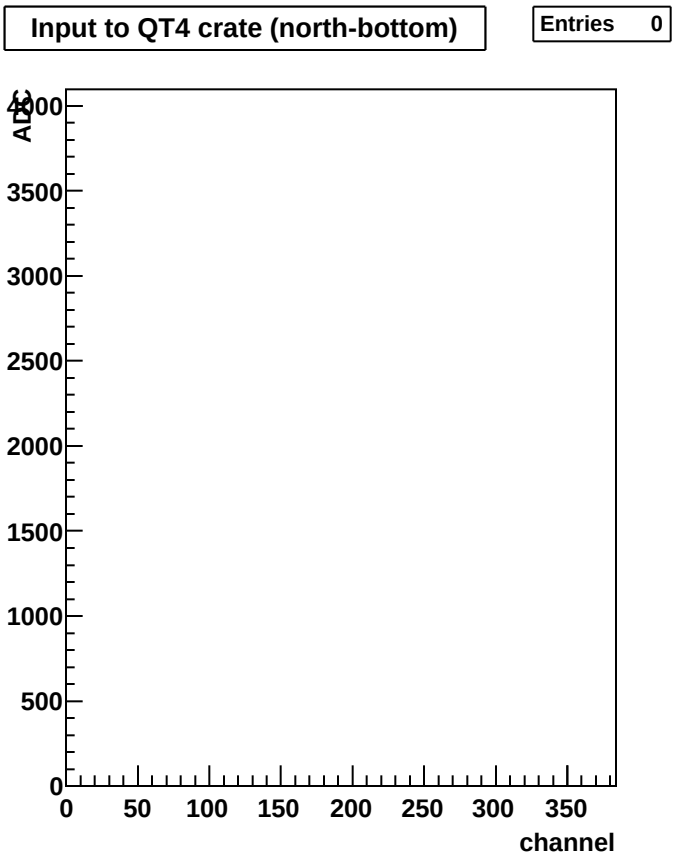

VPD-TAC-W
Entries 30110
Mean 1466
RMS 137.5

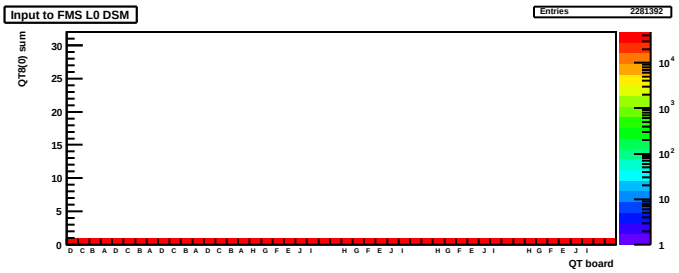

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 25222
Mean 4122
RMS 176.1

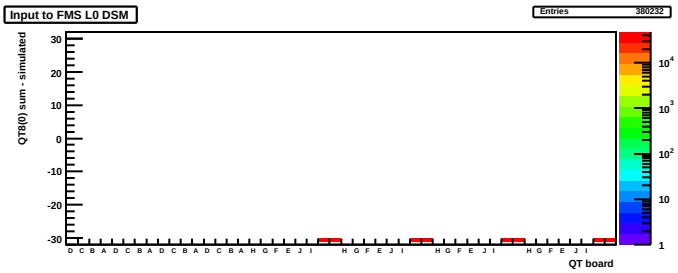

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

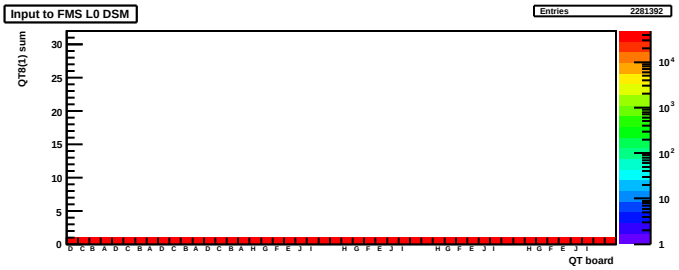

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

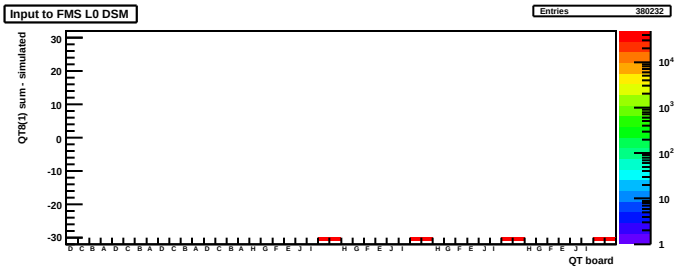

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

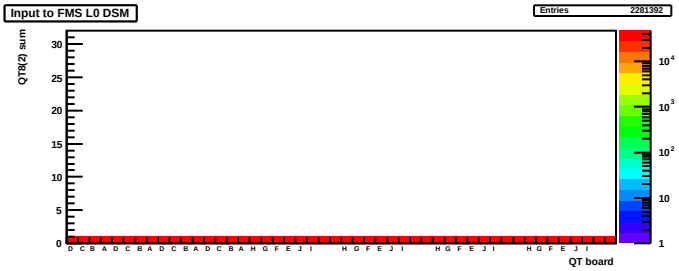

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

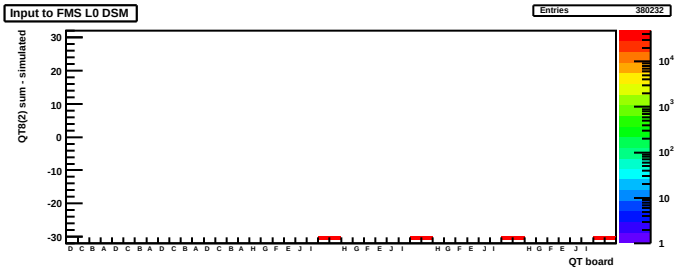

Input to FMS L0 DSM
Entries 2281392
QT8(0) sum
QT board

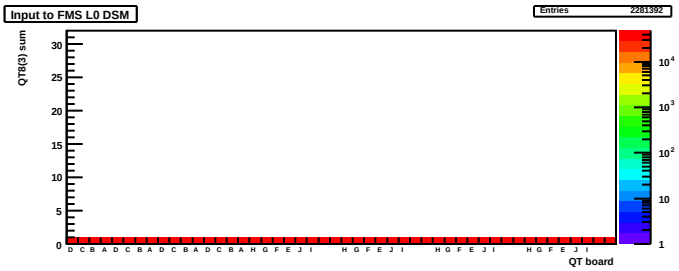

Input to FMS L0 DSM
Entries 380232
QT8(0) sum - simulated
QT board

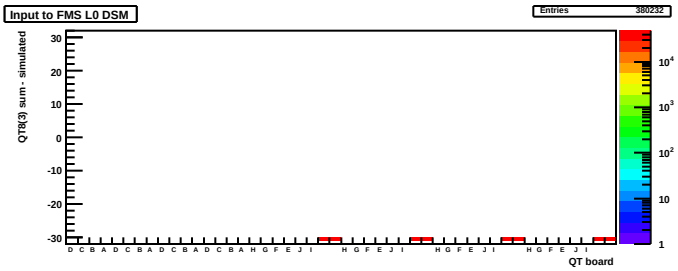

Input to FMS L0 DSM
Entries 2281392
QT8(1) sum
QT board

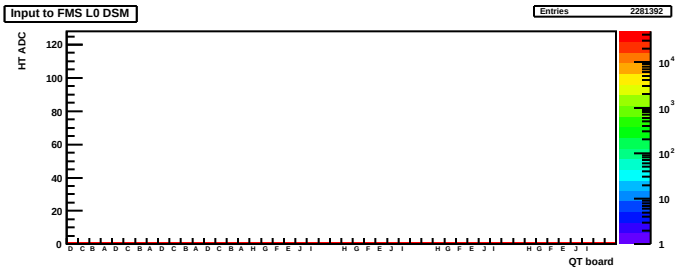

Input to FMS L0 DSM
Entries 380232
QT8(1) sum - simulated
QT board

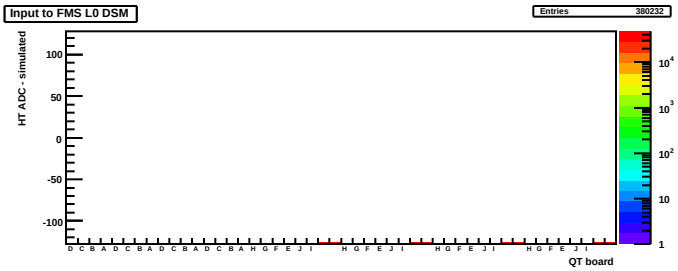

Input to FMS L0 DSM
Entries 2281392
QT8(2) sum
QT board

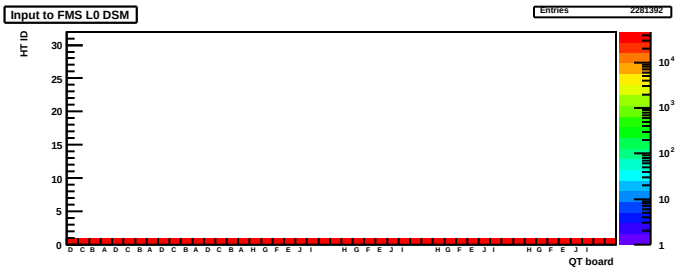

Input to FMS L0 DSM
Entries 380232
QT8(2) sum - simulated
QT board

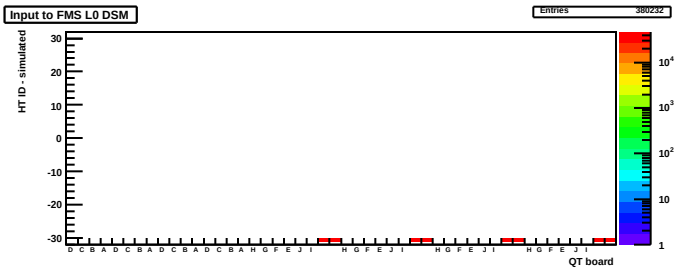

Input to FMS L0 DSM
Entries 2281392
QT8(3) sum
QT board

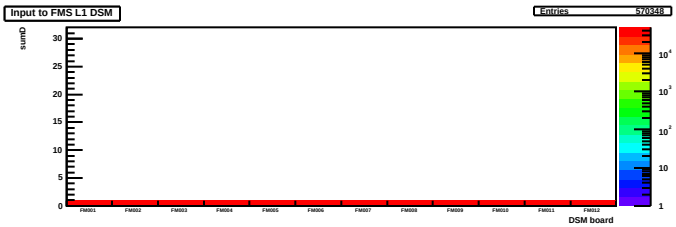

Input to FMS L0 DSM
Entries 380232
QT8(3) sum - simulated
QT board

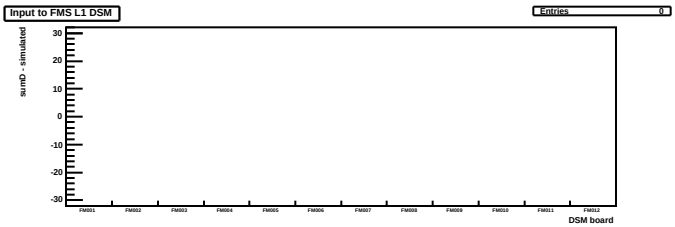

Input to FMS L0 DSM
Entries 2281392
HT ADC
QT board

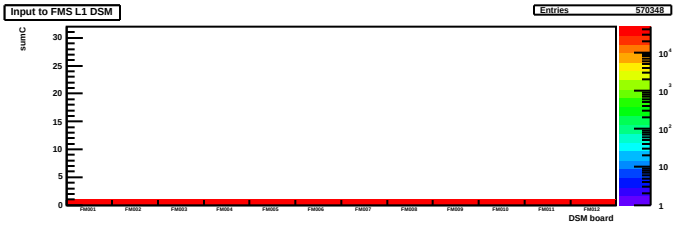

Input to FMS L0 DSM
Entries 380232
HT ADC - simulated
QT board

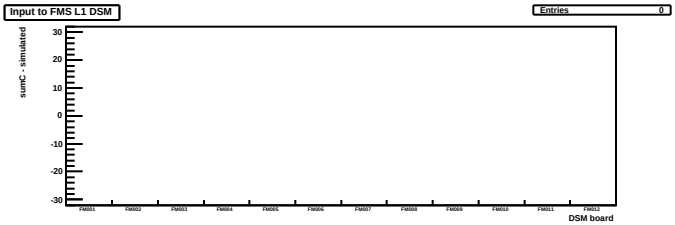

Input to FMS L0 DSM
Entries 2281392
HT ID
QT board

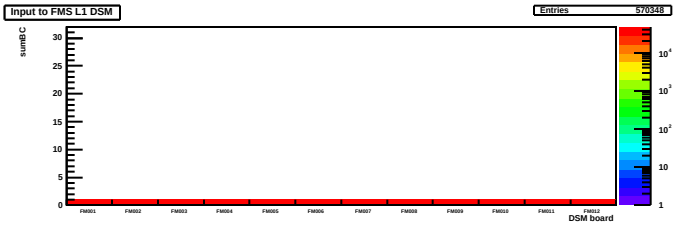

Input to FMS L0 DSM
Entries 380232
HT ID - simulated
QT board

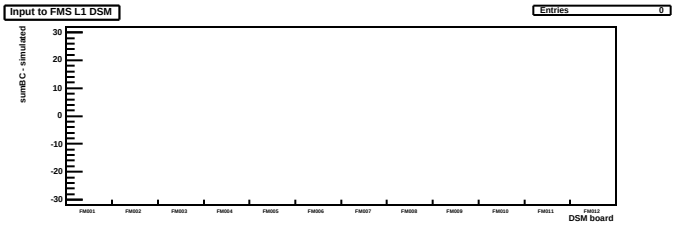

Input to FMS L1 DSM
Entries 570348
sumD
DSM board

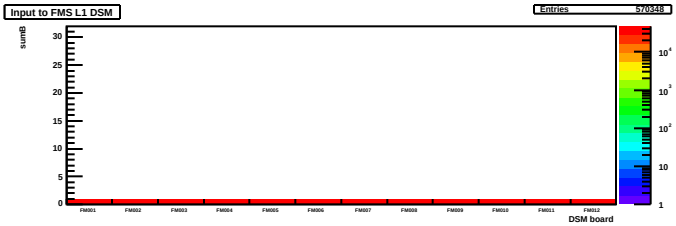

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

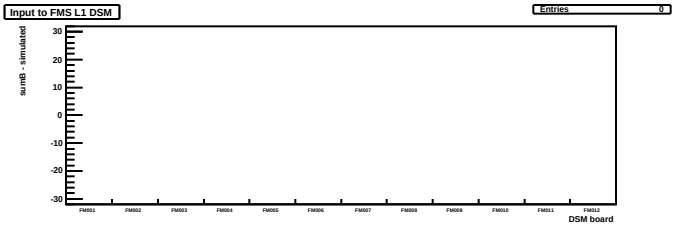

Input to FMS L1 DSM
Entries 570348
sumC
DSM board

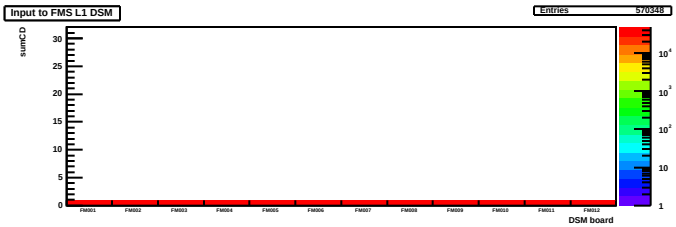

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

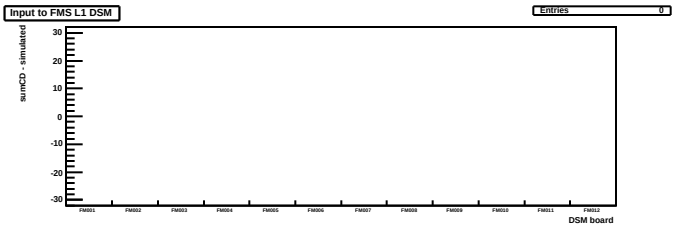

Input to FMS L1 DSM
Entries 570348
sumBC
DSM board

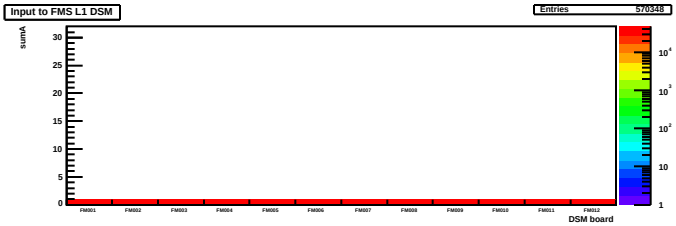

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

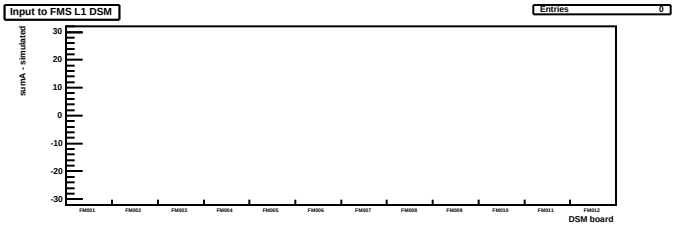

Input to FMS L1 DSM
Entries 570348
sumB
DSM board

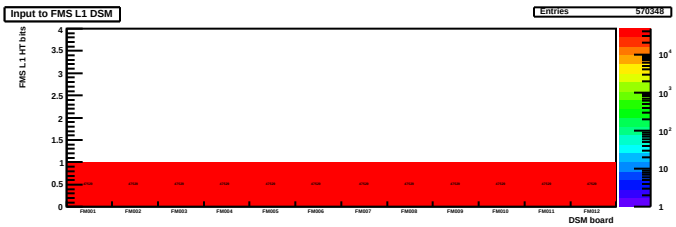

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

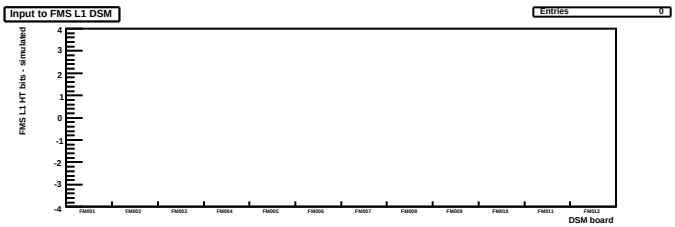

Input to FMS L1 DSM
Entries 570348
sumCD
DSM board

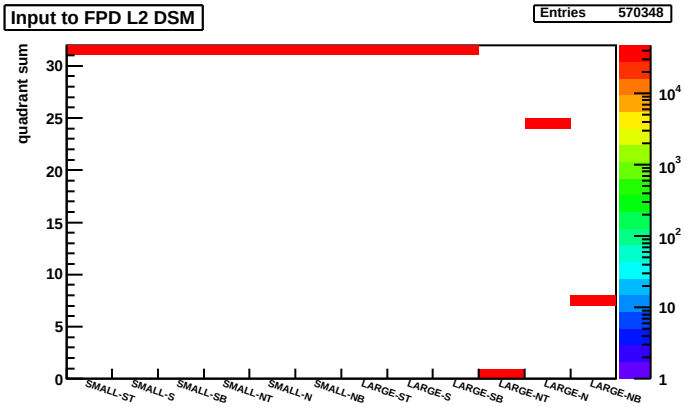

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

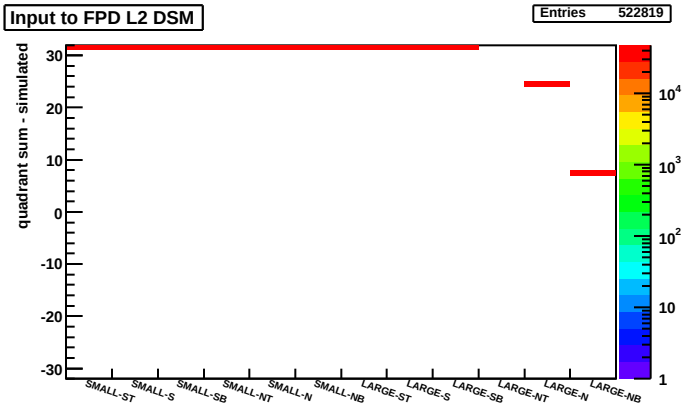

Input to FMS L1 DSM
Entries 570348
sumA
DSM board

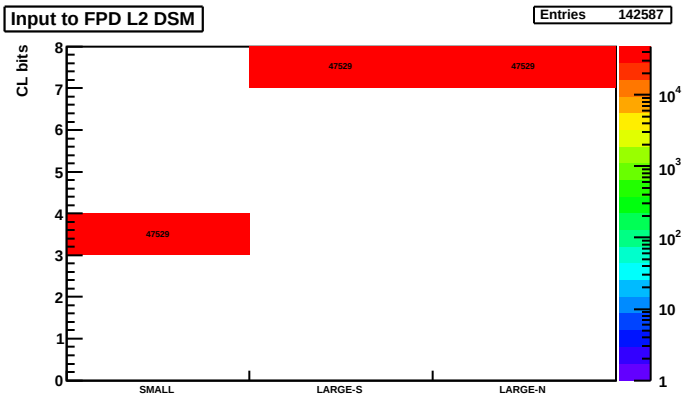

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

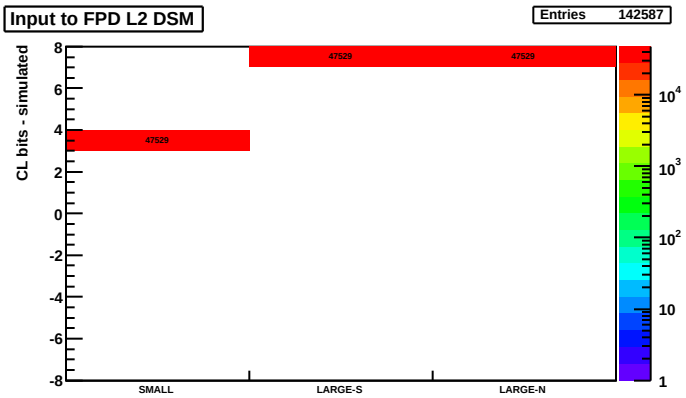

Input to FMS L1 DSM
Entries 570348
FMS L1 HT bits
DSM board

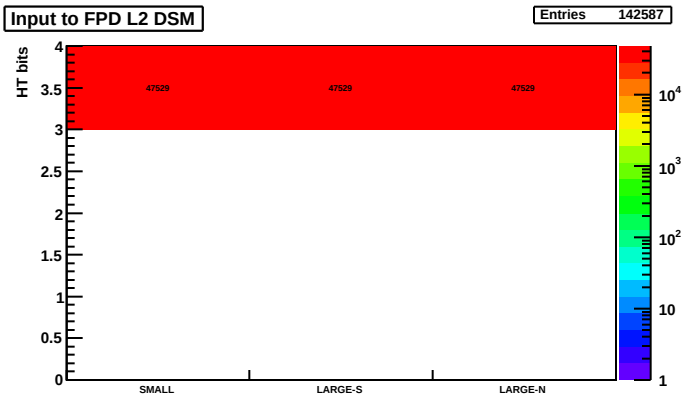

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

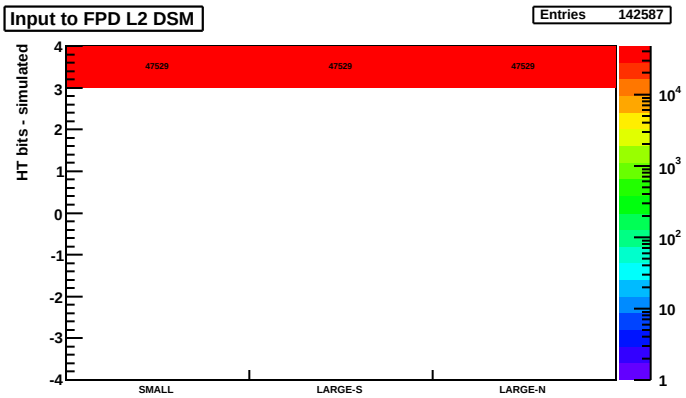

Input to FPD L2 DSM
Entries 570348
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

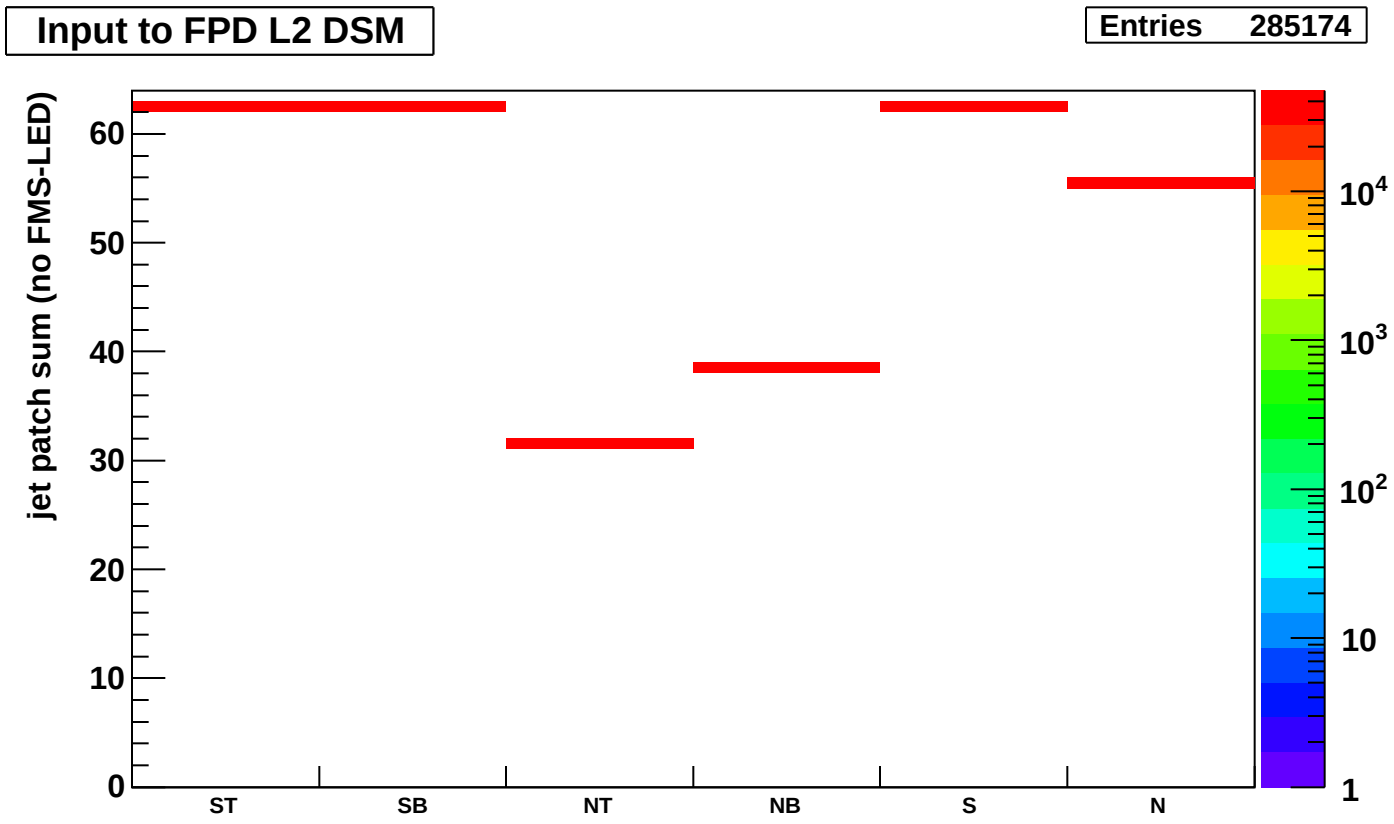

Input to FPD L2 DSM
Entries 522819
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

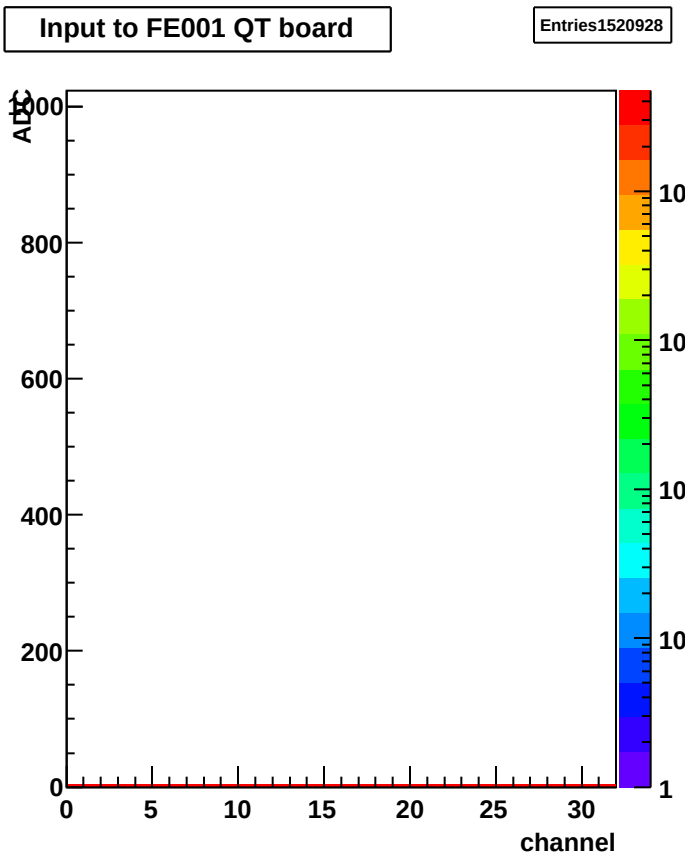

Input to FPD L2 DSM
Entries 142587
CL bits
47529
47529
47529
SMALL
LARGE-S
LARGE-N

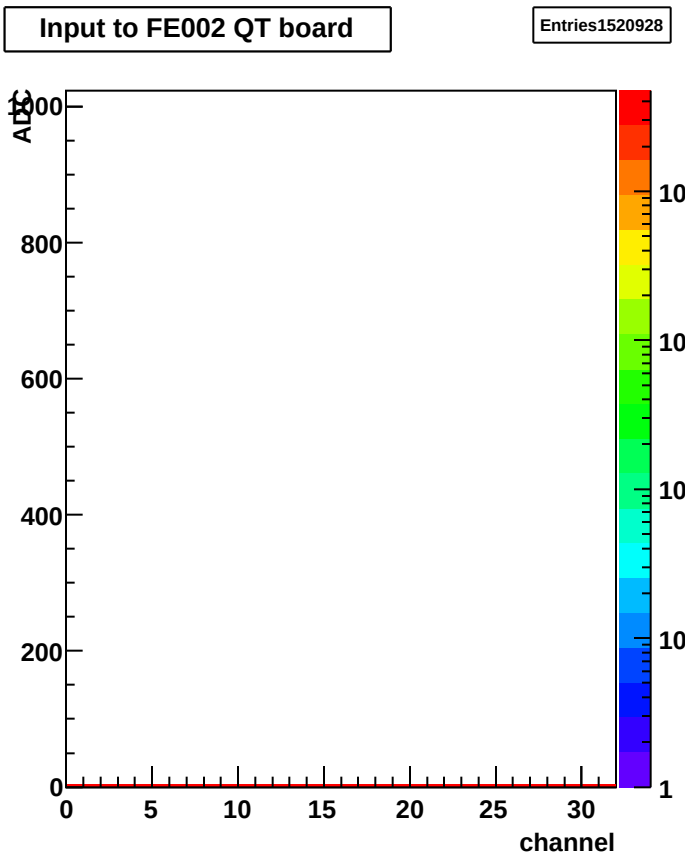

Input to FPD L2 DSM
Entries 142587
CL bits - simulated
47529
47529
47529
SMALL
LARGE-S
LARGE-N

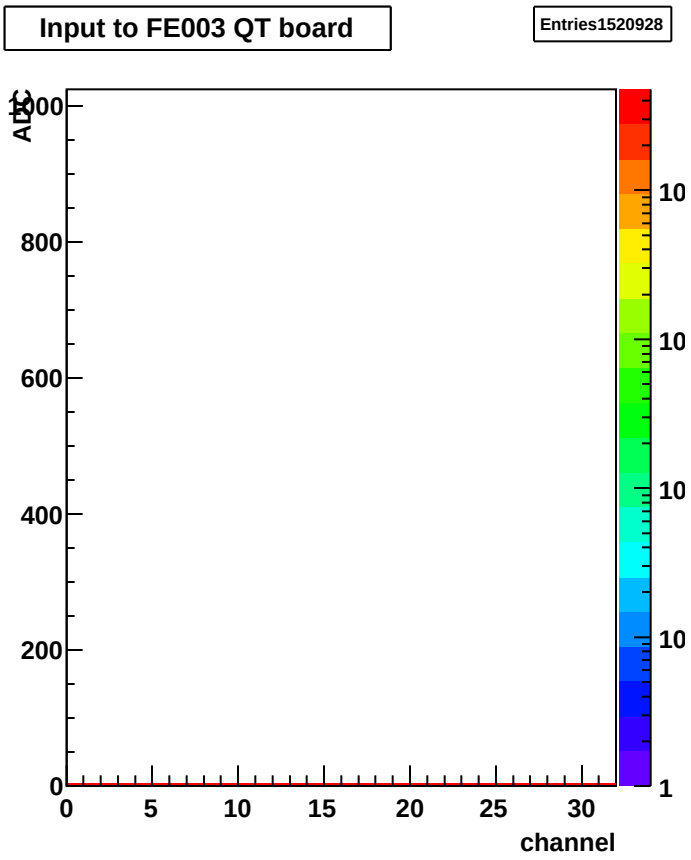

Input to FPD L2 DSM
Entries 142587
HT bits
47529
47529
47529
SMALL
LARGE-S
LARGE-N

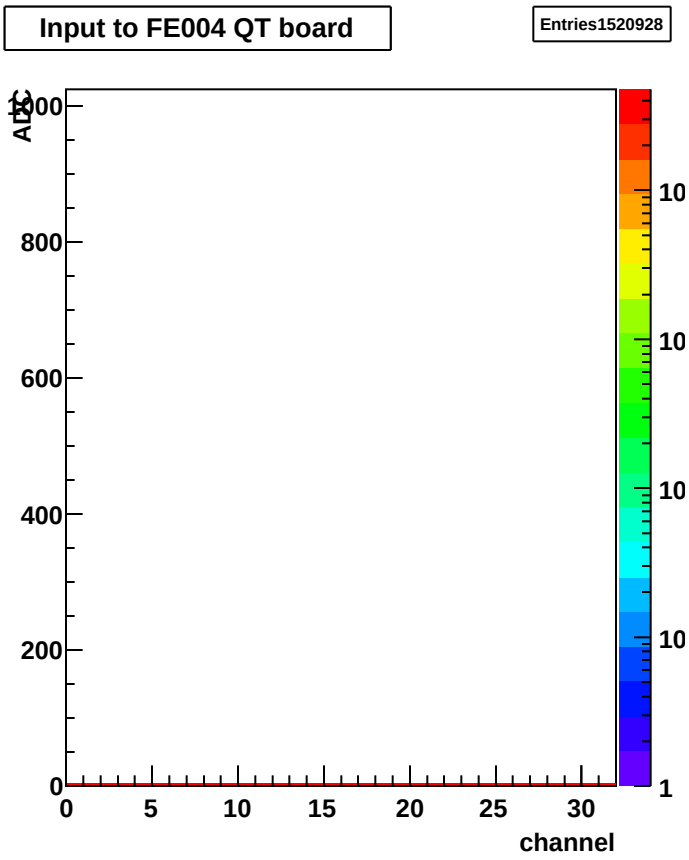

Input to FPD L2 DSM
Entries 142587
HT bits - simulated
47529
47529
47529
SMALL
LARGE-S
LARGE-N

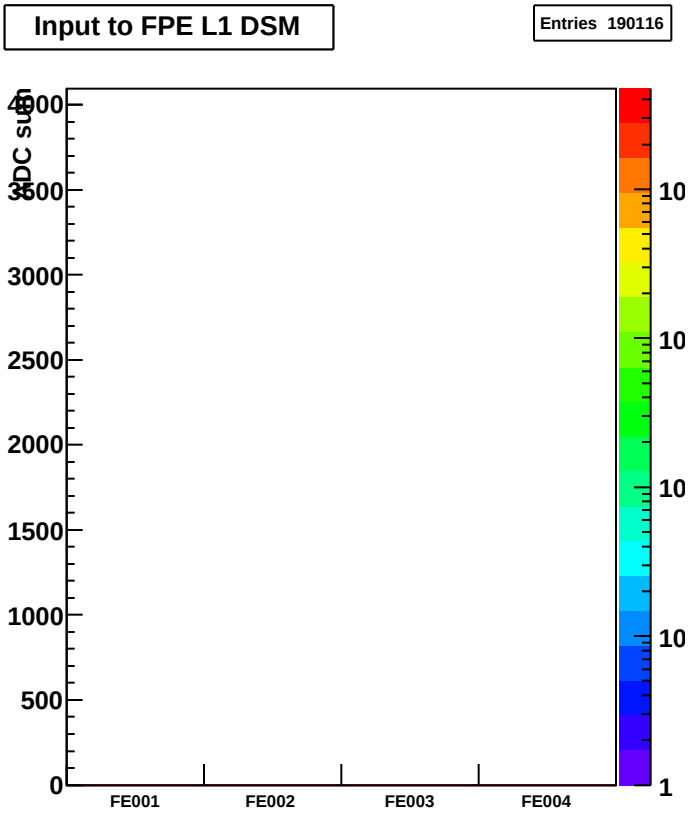

Input to FPD L2 DSM
Entries 285174
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

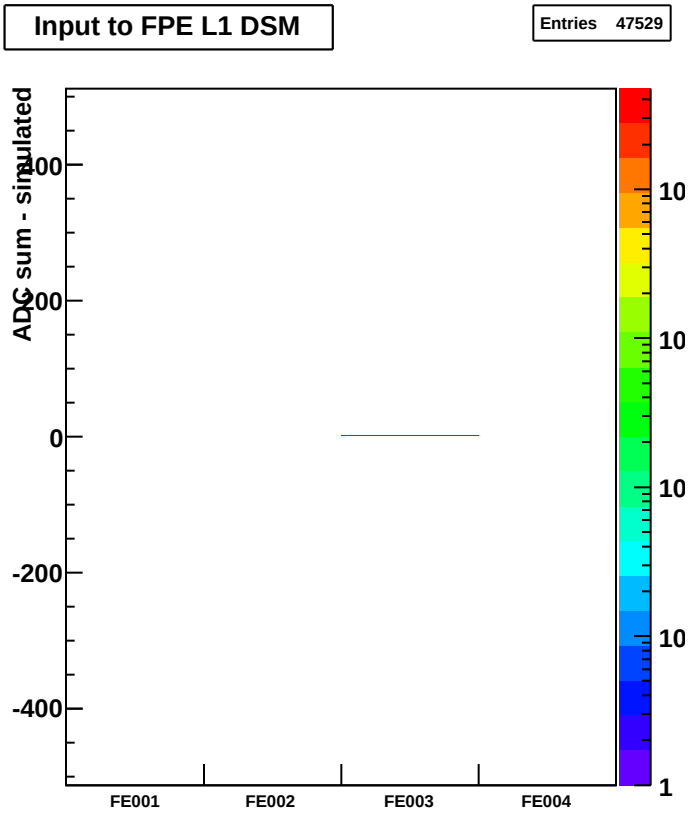

Input to FE001 QT board
Entries1520928
ADC
channel

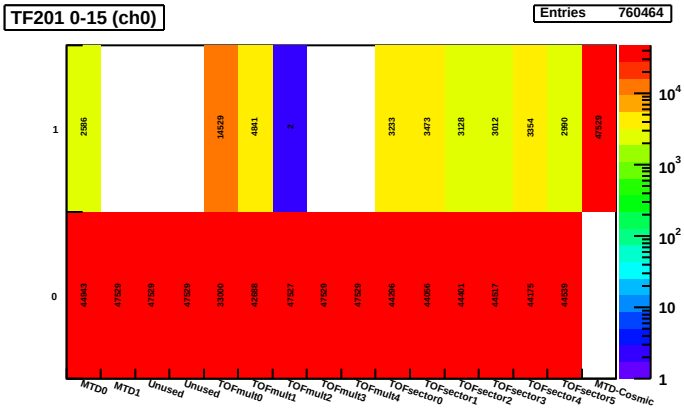

Input to FE002 QT board
Entries1520928
ADC
channel

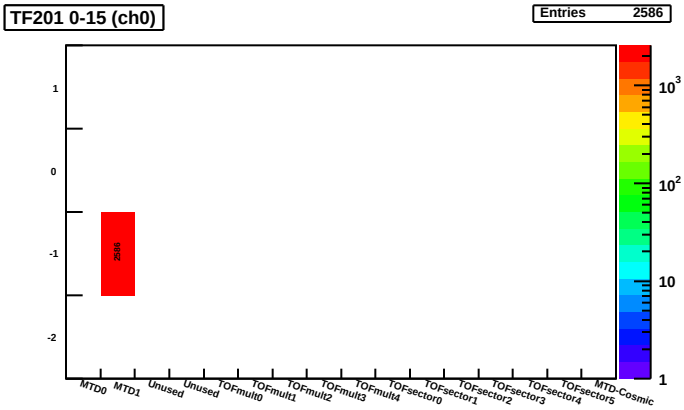

Input to FE003 QT board
Entries1520928
ADC
channel

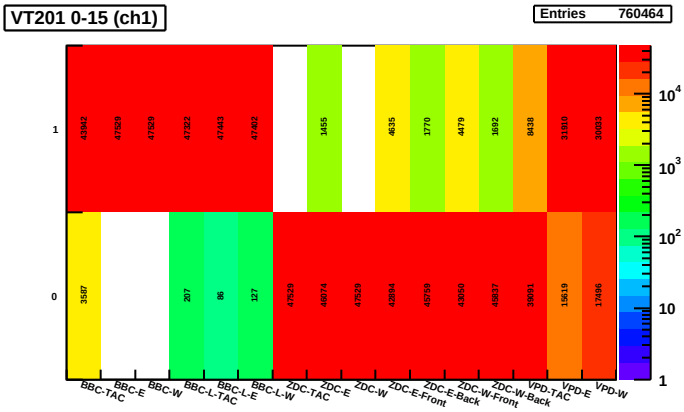

Input to FE004 QT board
Entries1520928
ADC
channel

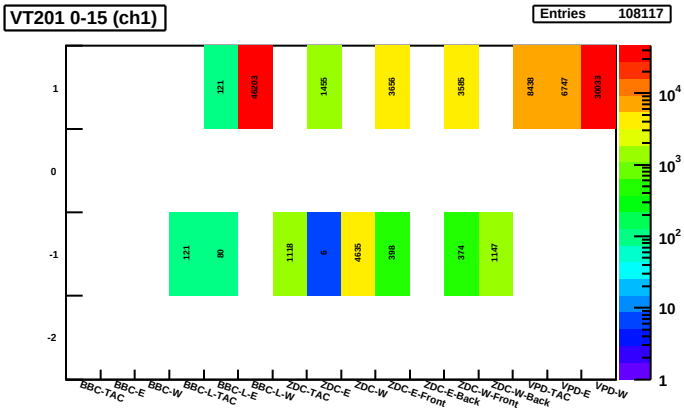

Input to FPE L1 DSM
Entries 190116
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 47529
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 760464
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2586
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 760464
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 108117
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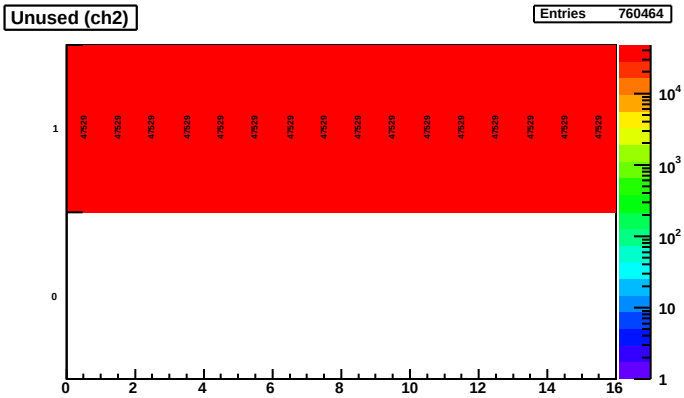
Unused (ch2)
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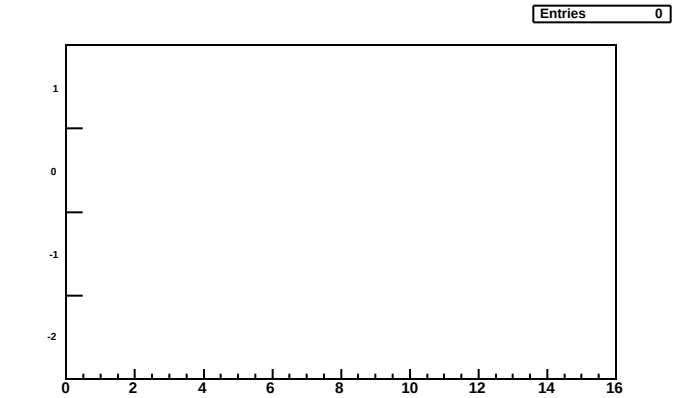
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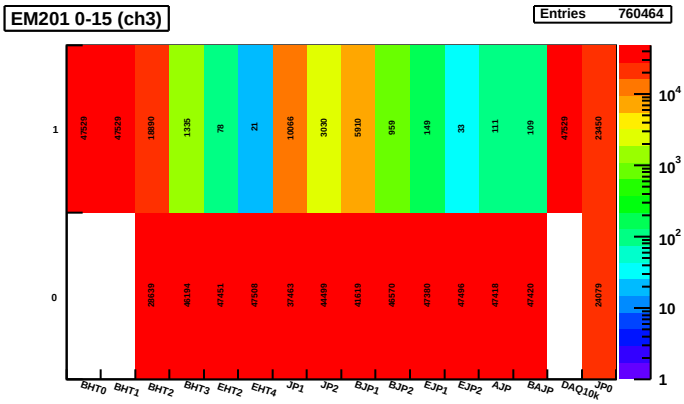
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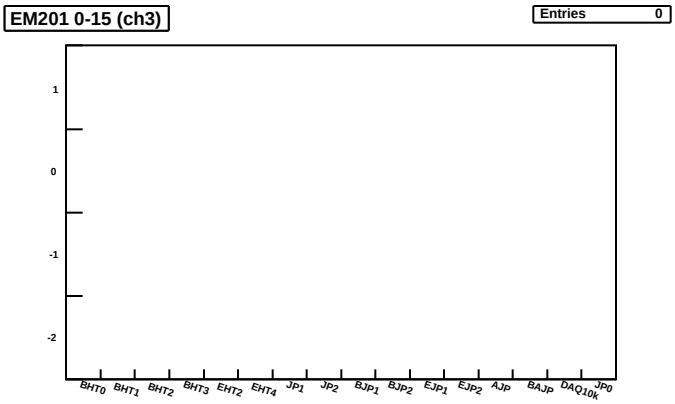
Entries 760464
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


EM201 0-15 (ch3)
Entries 0
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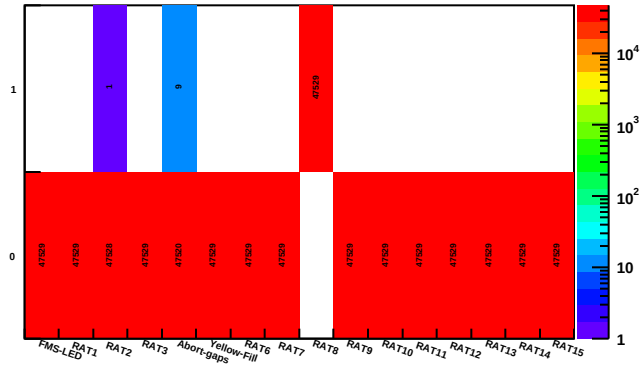
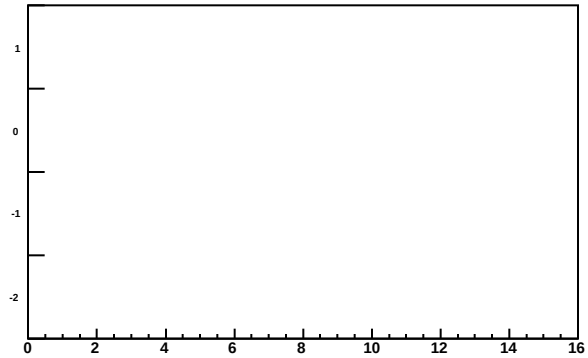
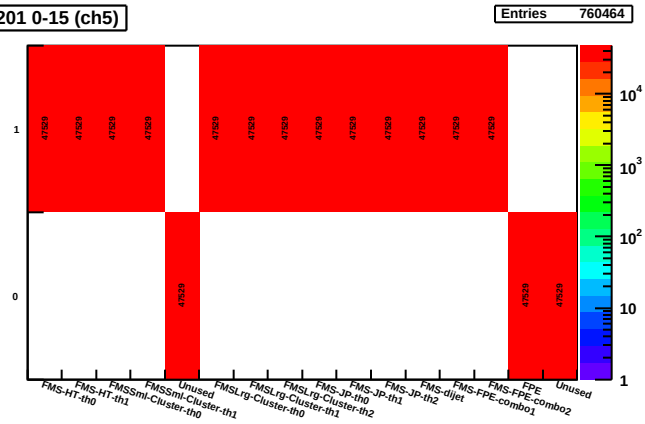
RAT board (ch4)





FP201 0-15 (ch5)



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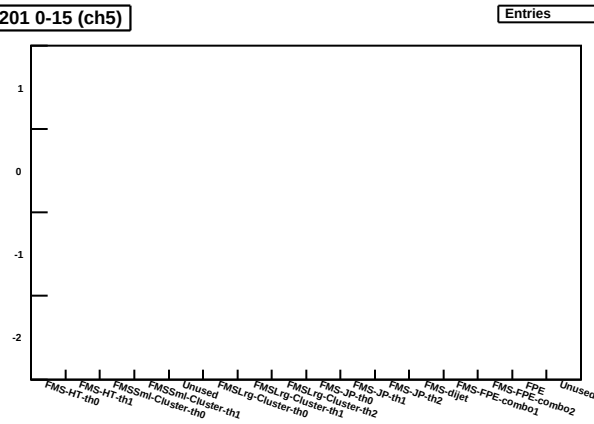
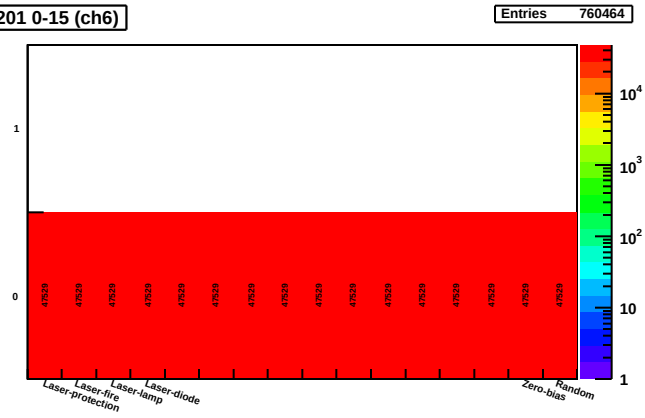
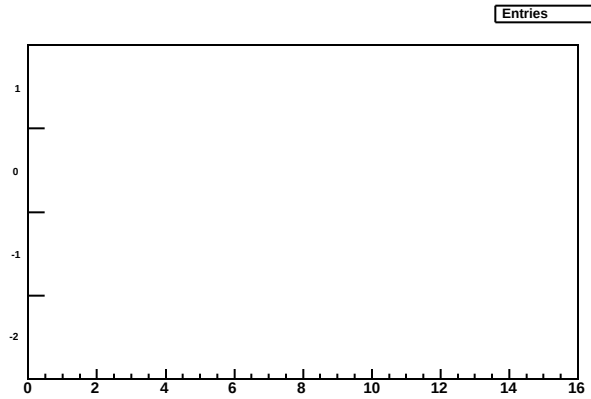
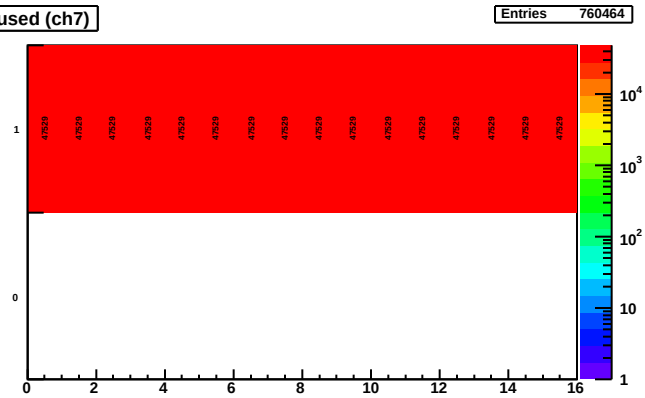
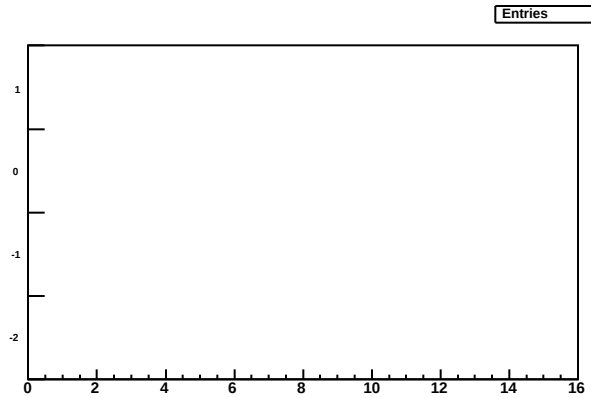


ST201 0-15 (ch6)





Unused (ch7)