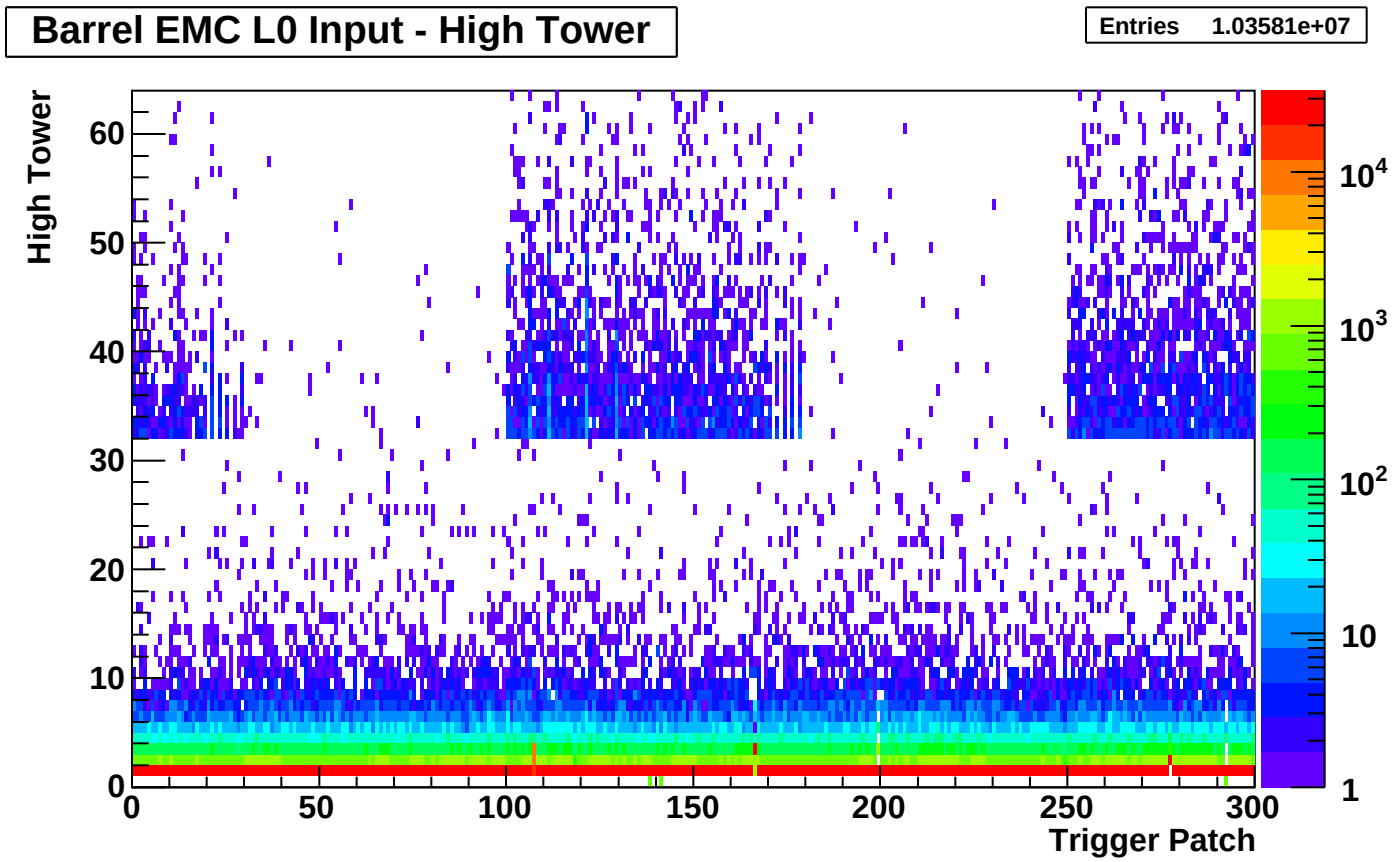
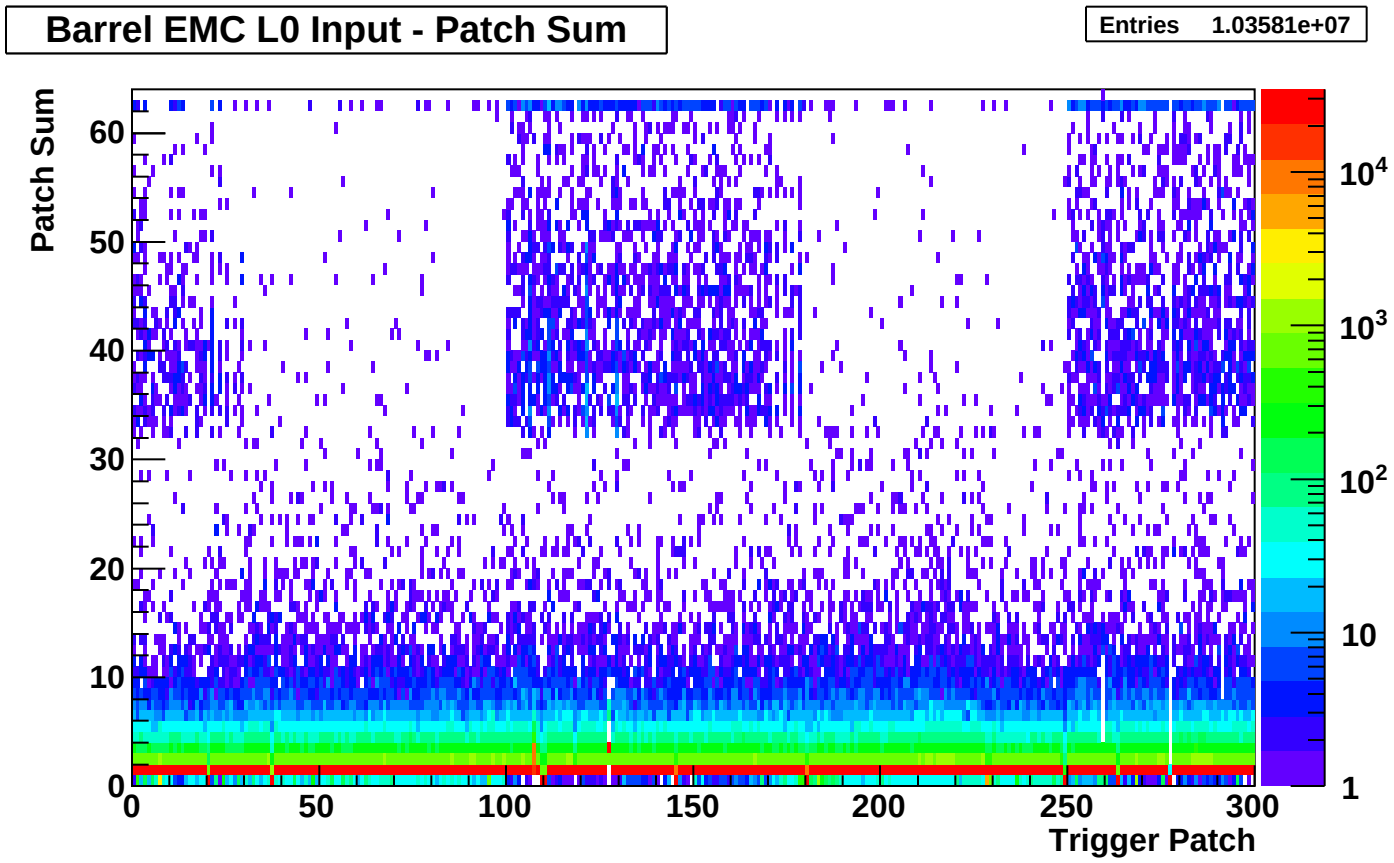
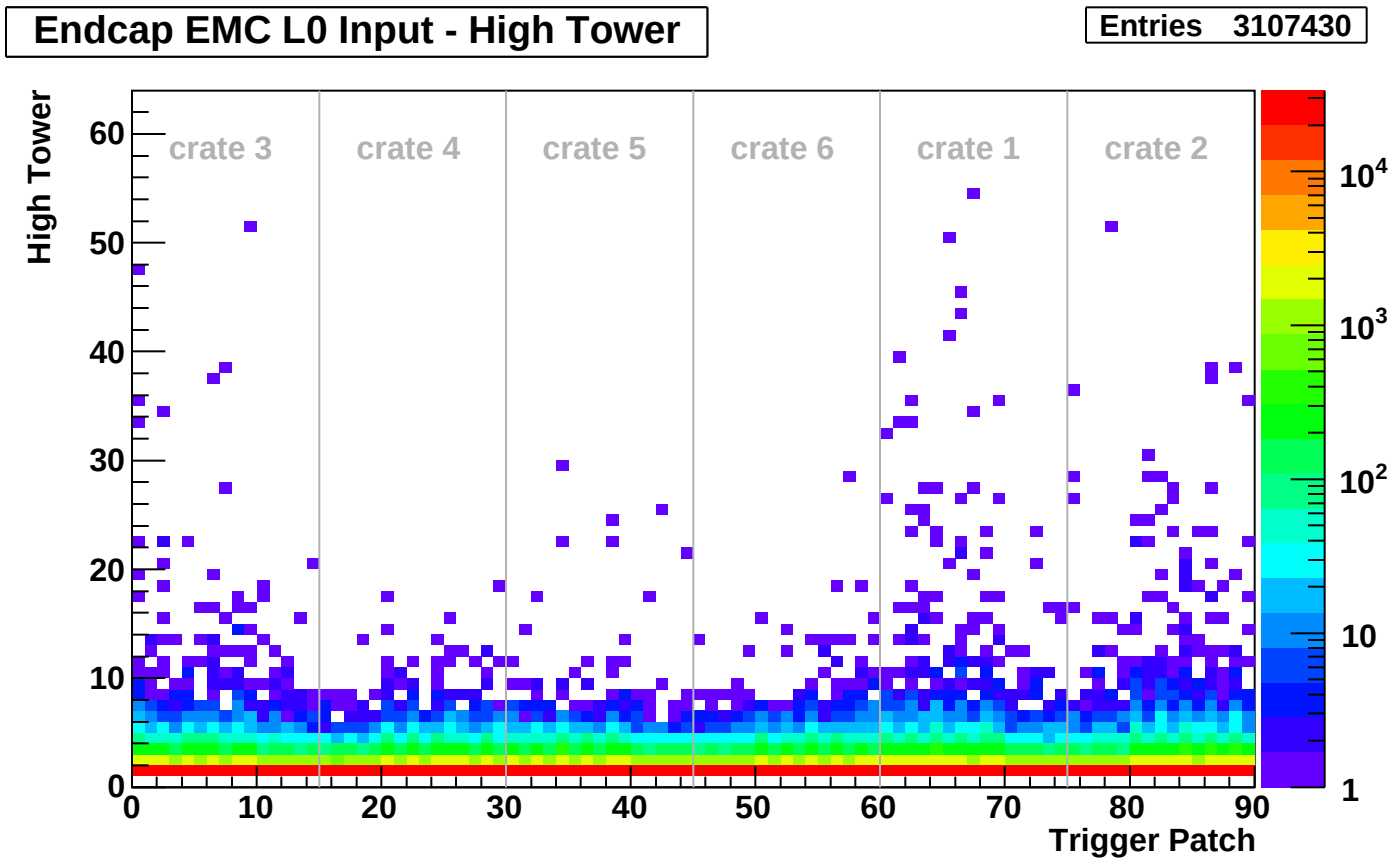
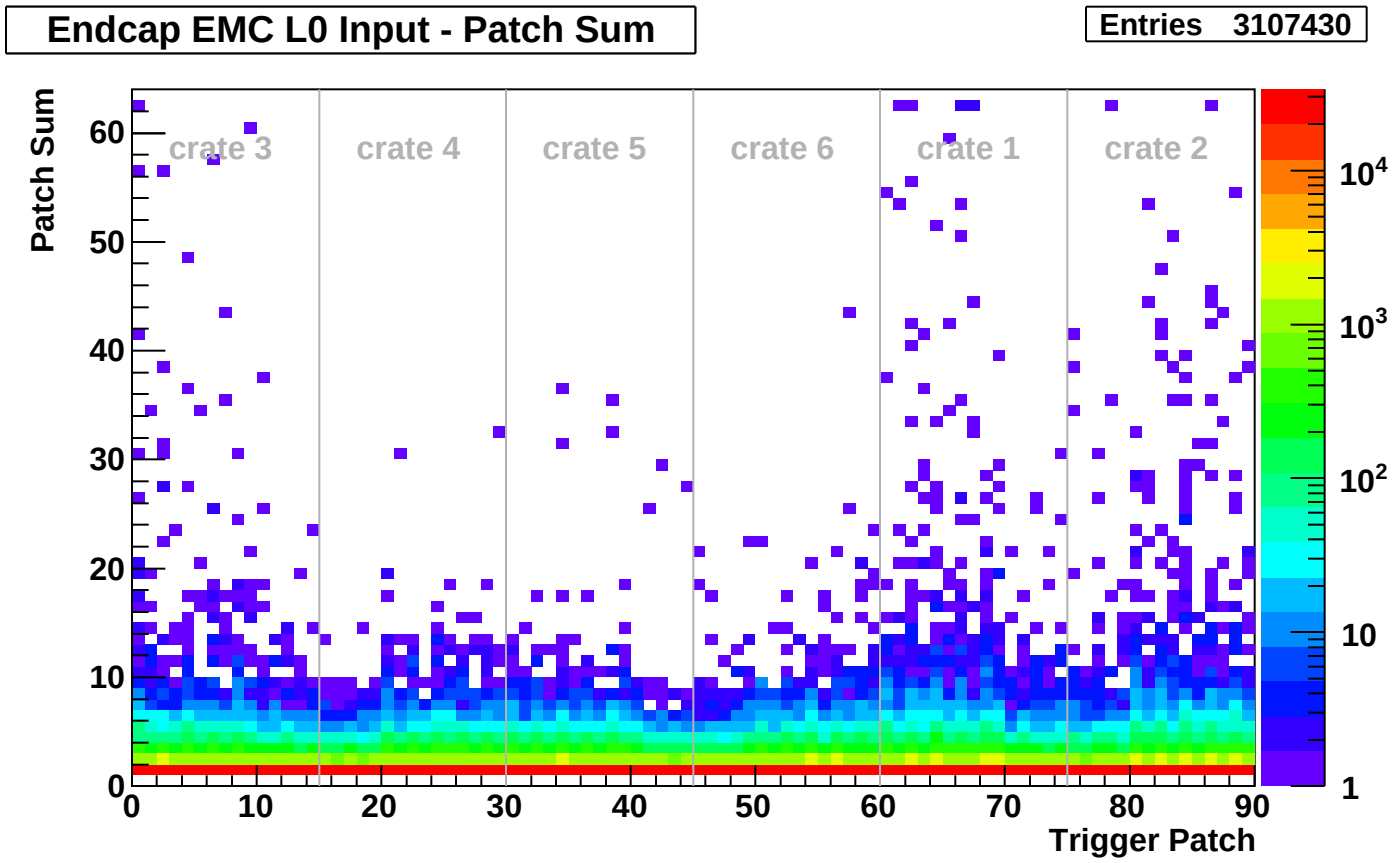
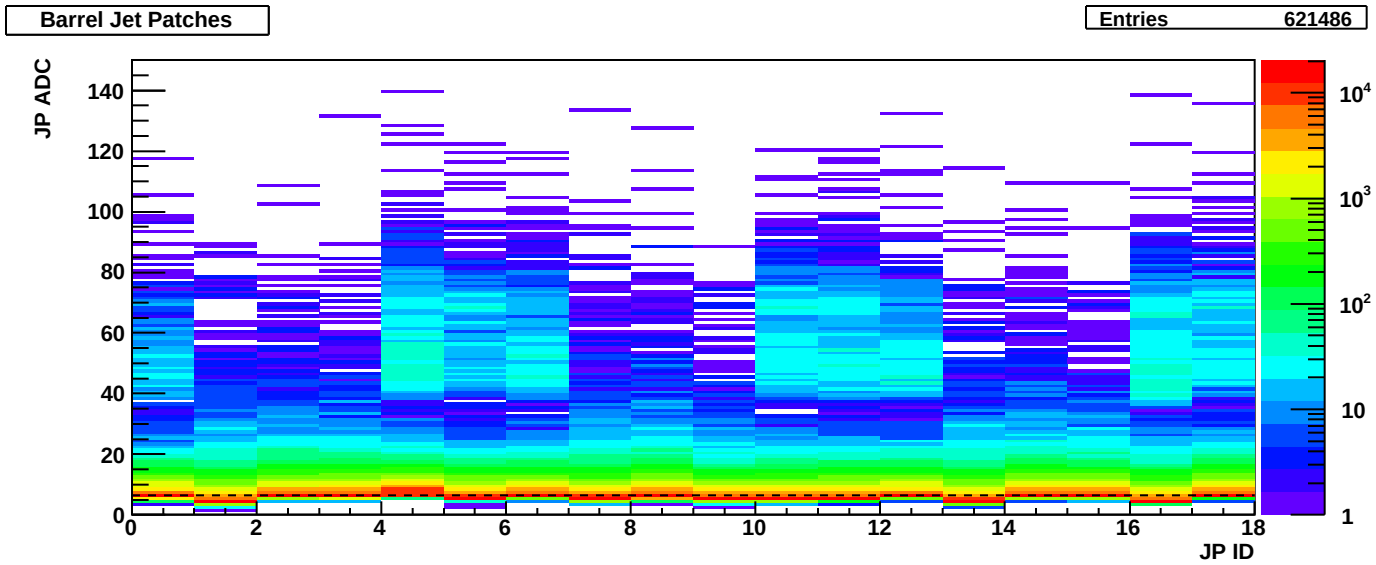
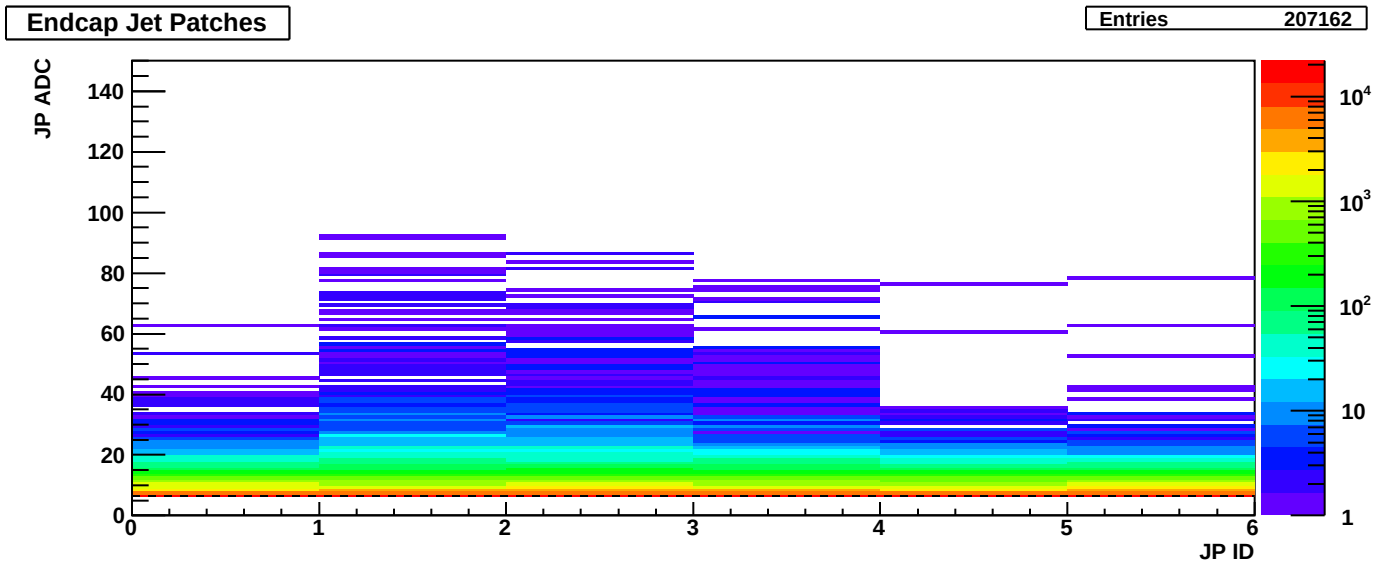

Barrel EMC L0 Input - High Tower
Entries 1.03581e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

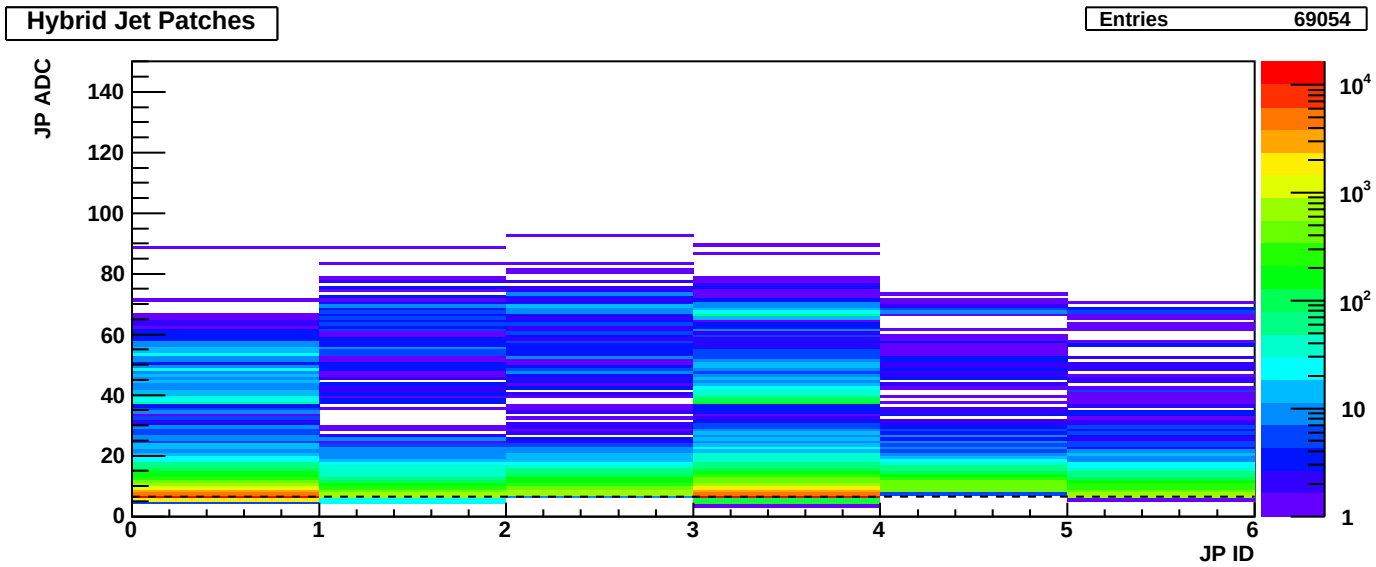

Barrel EMC L0 Input - Patch Sum
Entries 1.03581e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

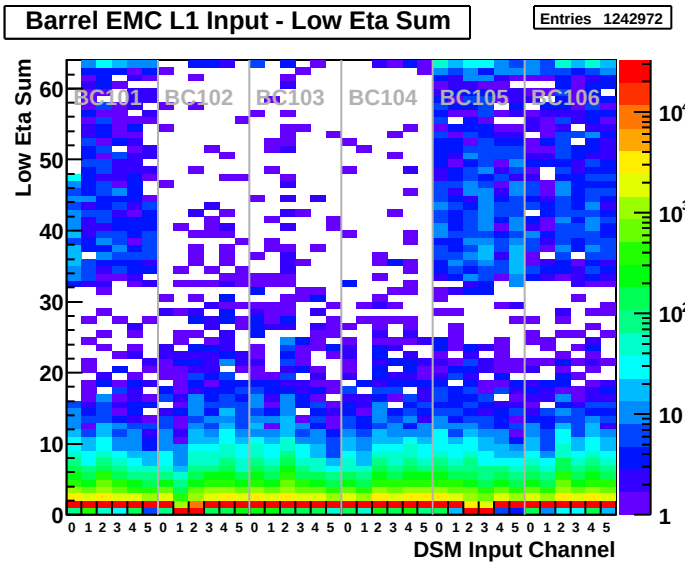

Endcap EMC L0 Input - High Tower
Entries 3107430
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

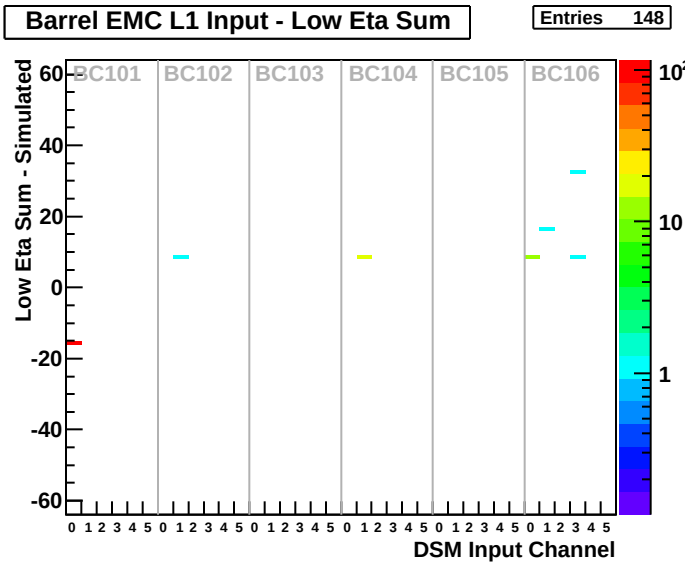

Endcap EMC L0 Input - Patch Sum
Entries 3107430
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

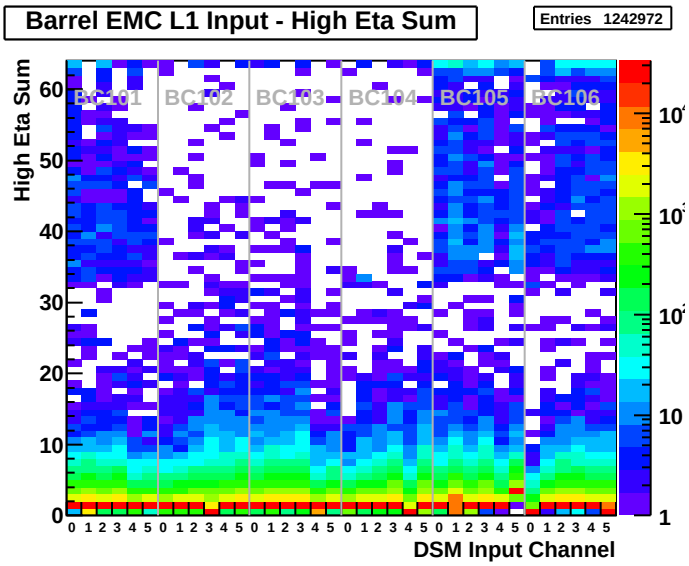

Barrel Jet Patches
Entries 621486
JP ADC
JP ID

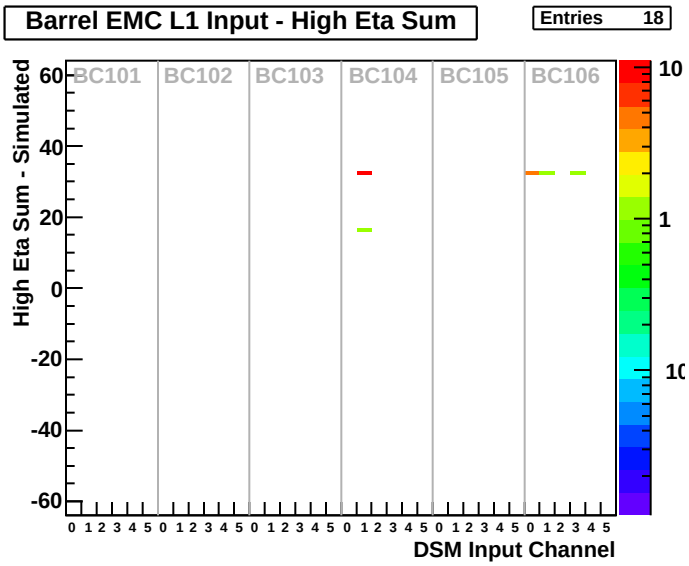

Endcap Jet Patches
Entries 207162
JP ADC
JP ID

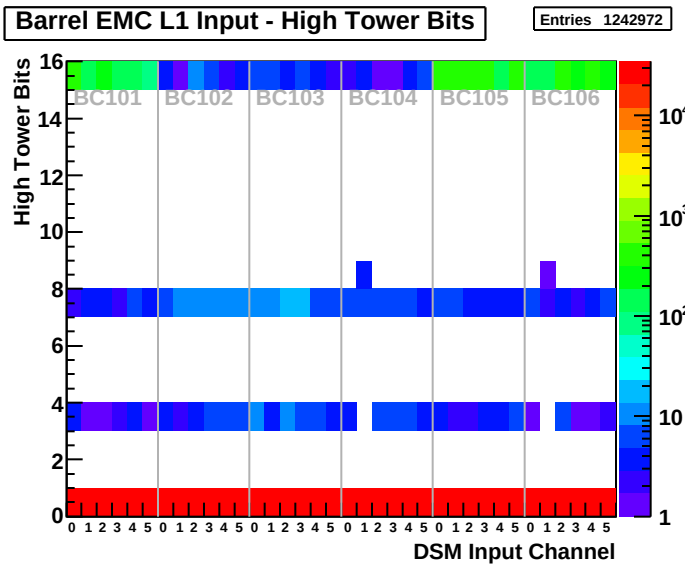

Hybrid Jet Patches
Entries 69054
JP ADC
JP ID

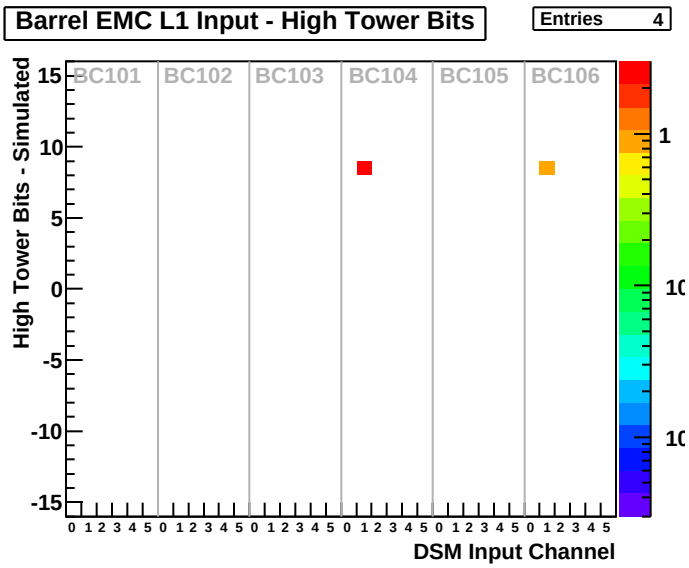

Barrel EMC L1 Input - Low Eta Sum
Entries 1242972
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

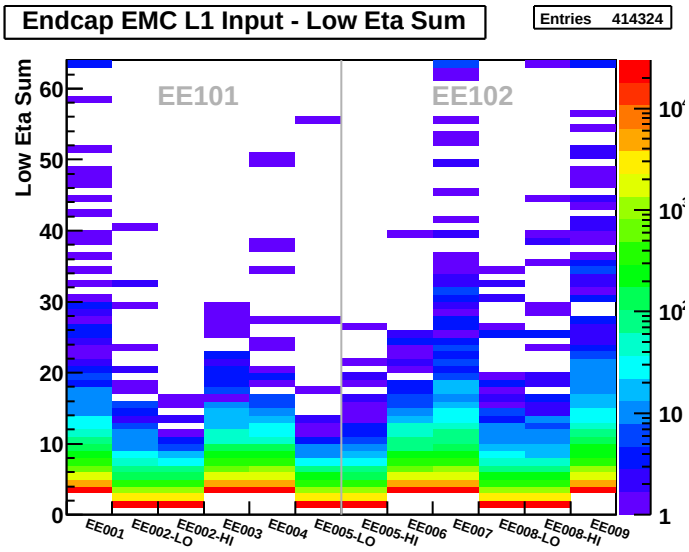

Barrel EMC L1 Input - Low Eta Sum
Entries 148
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

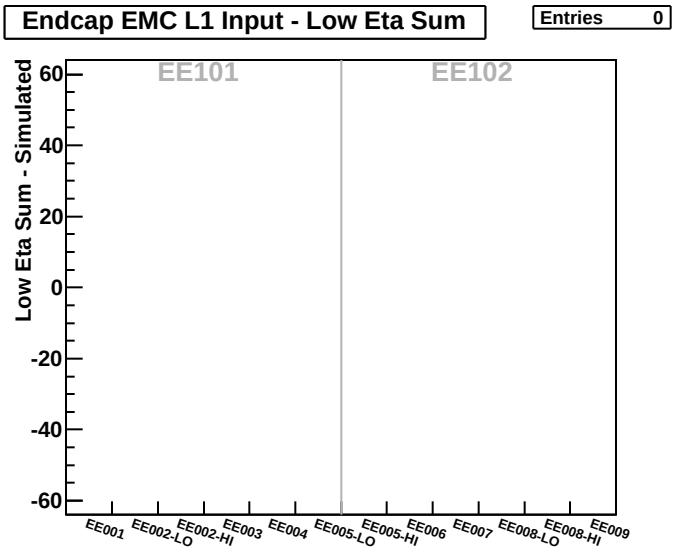

Barrel EMC L1 Input - High Eta Sum
Entries 1242972
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

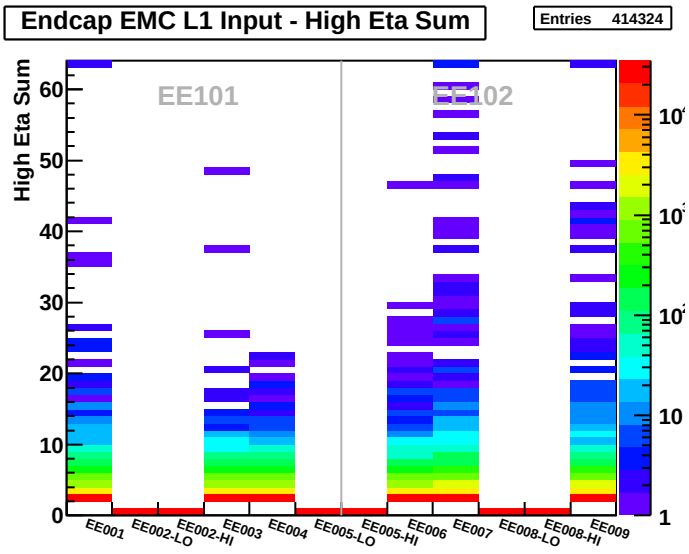

Barrel EMC L1 Input - High Eta Sum
Entries 18
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

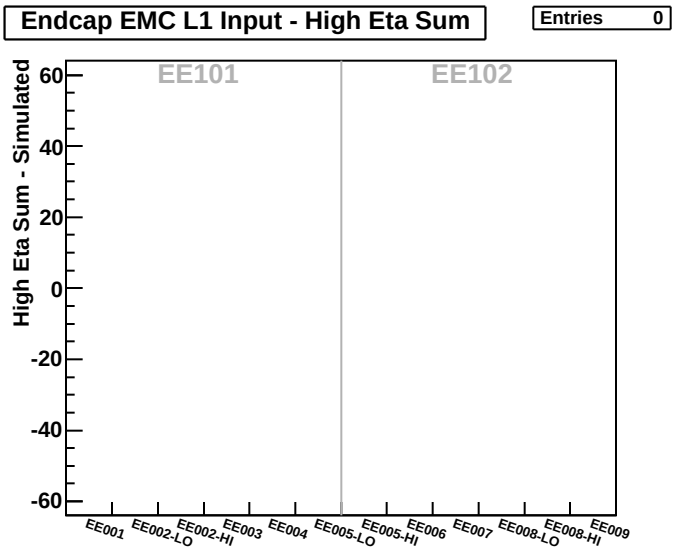

Barrel EMC L1 Input - High Tower Bits
Entries 1242972
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

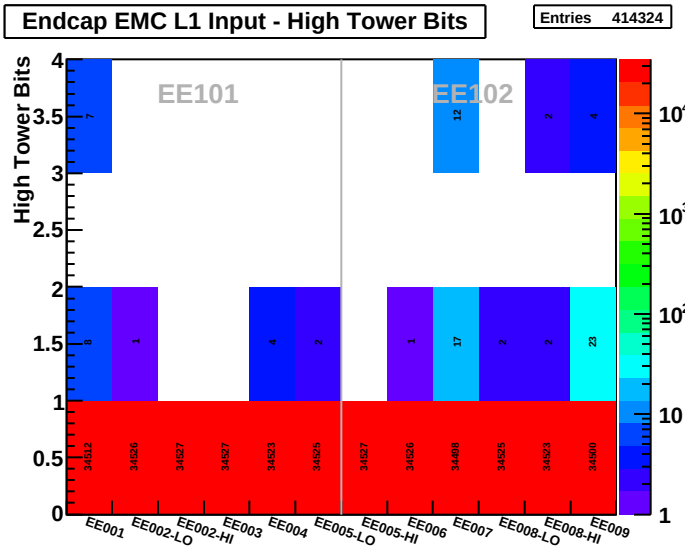

Barrel EMC L1 Input - High Tower Bits
Entries 4
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

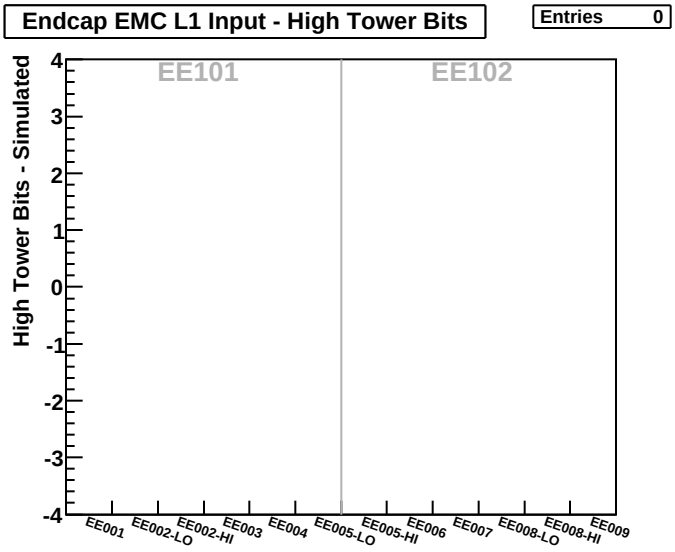

Endcap EMC L1 Input - Low Eta Sum
Entries 414324
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

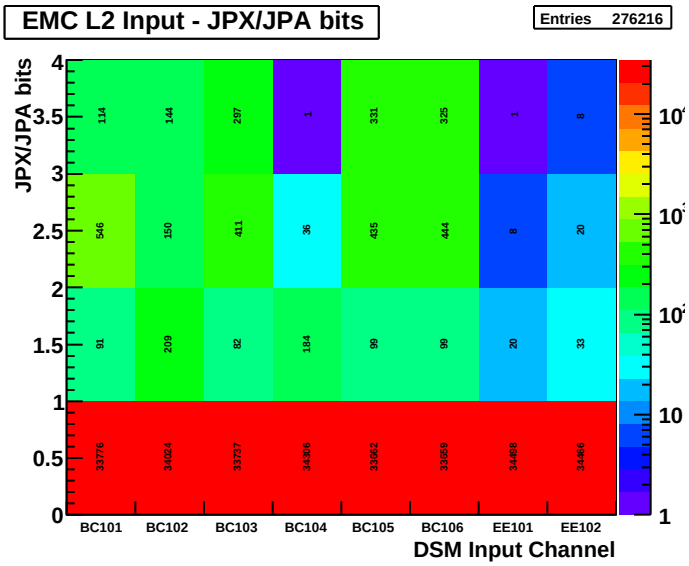

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

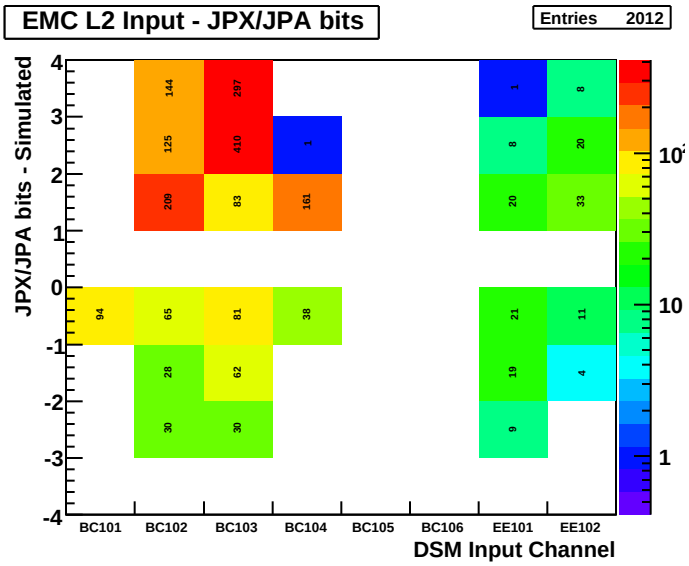

Endcap EMC L1 Input - High Eta Sum
Entries 414324
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

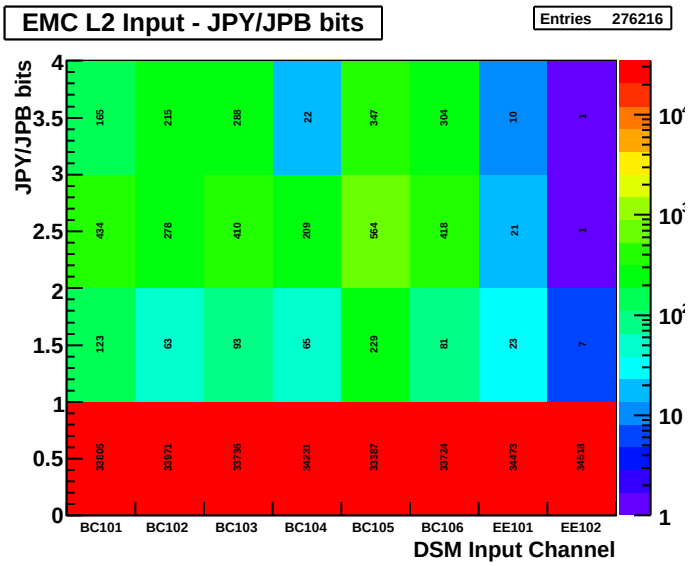

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

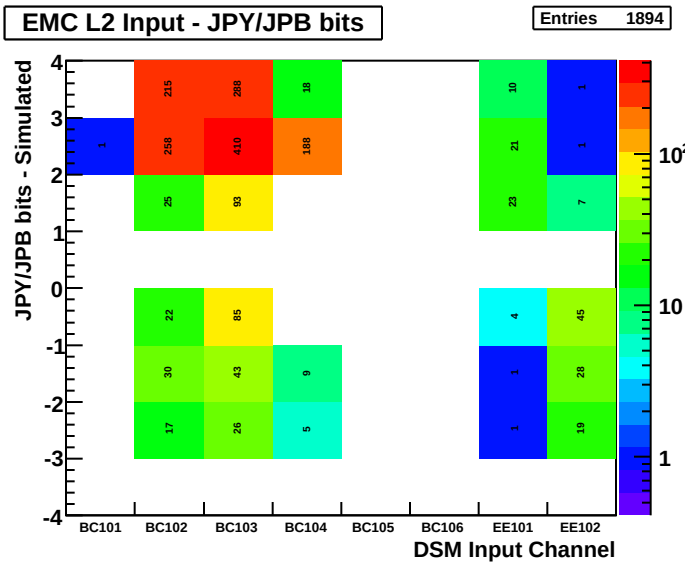

Endcap EMC L1 Input - High Tower Bits
Entries 414324
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

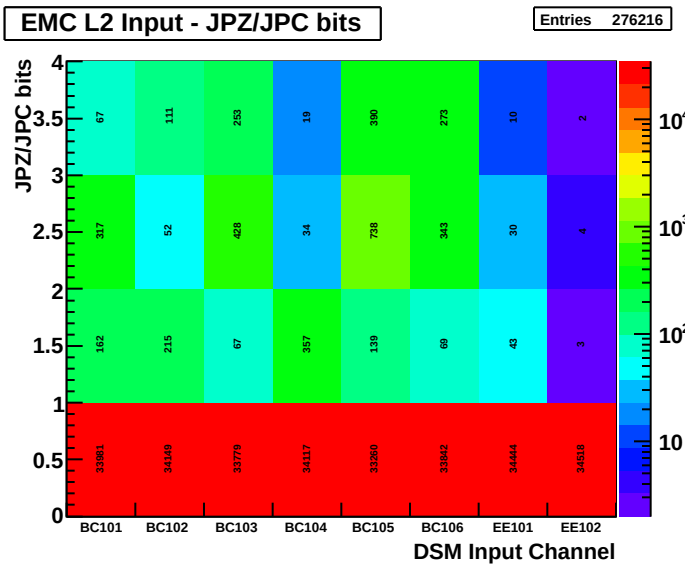

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

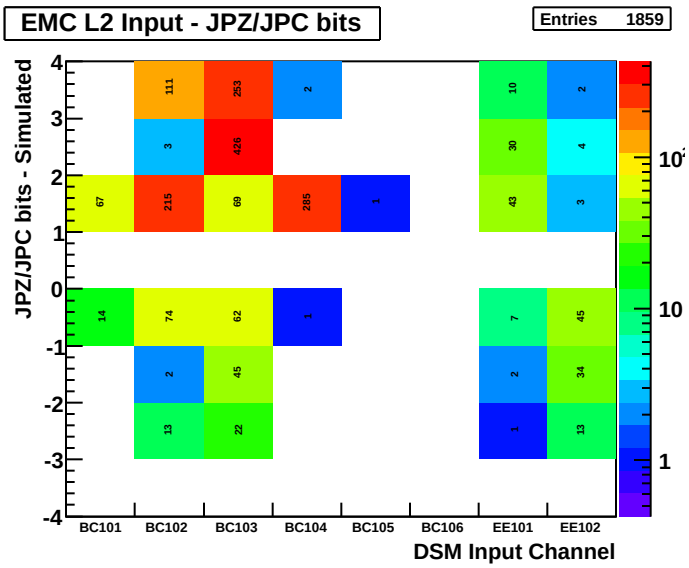

EMC L2 Input - JPX/JPA bits
Entries 276216
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

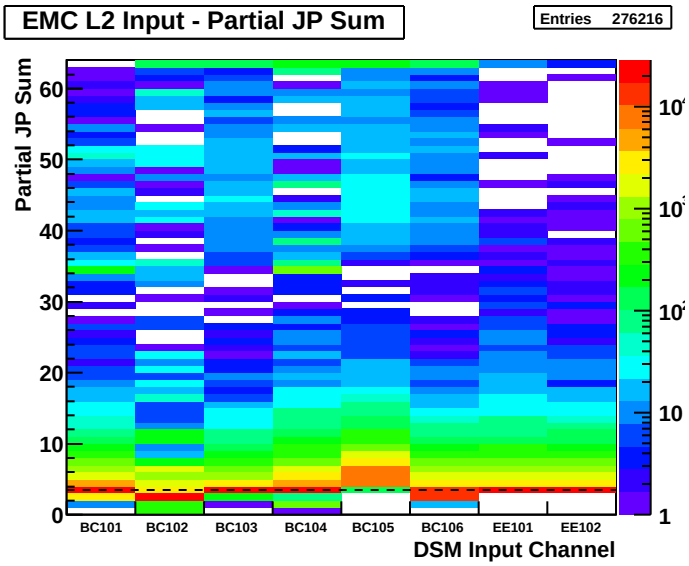

EMC L2 Input - JPX/JPA bits
Entries 2012
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

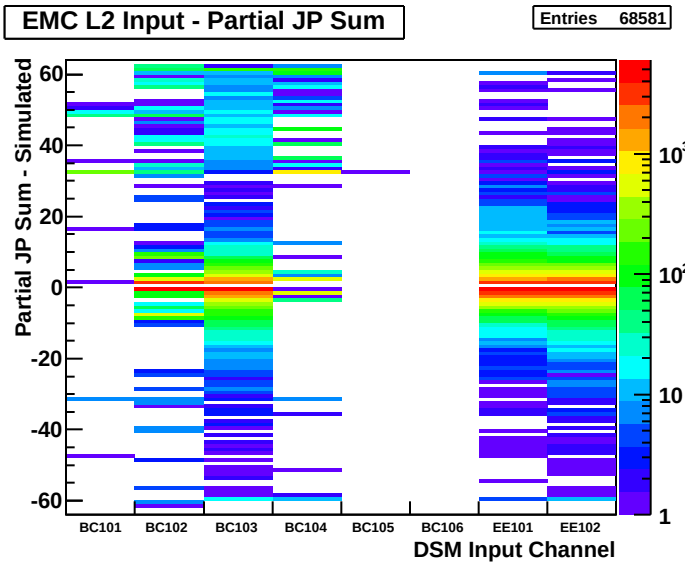

EMC L2 Input - JPY/JPB bits
Entries 276216
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

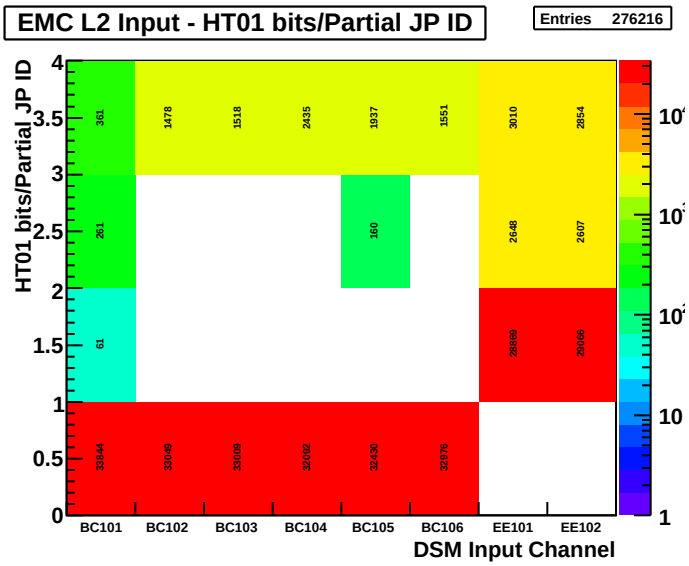

EMC L2 Input - JPY/JPB bits
Entries 1894
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

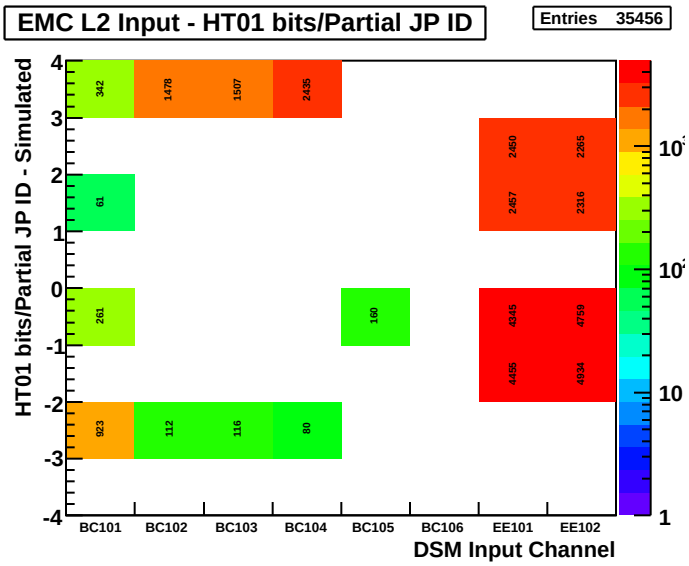

EMC L2 Input - JPZ/JPC bits
Entries 276216
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

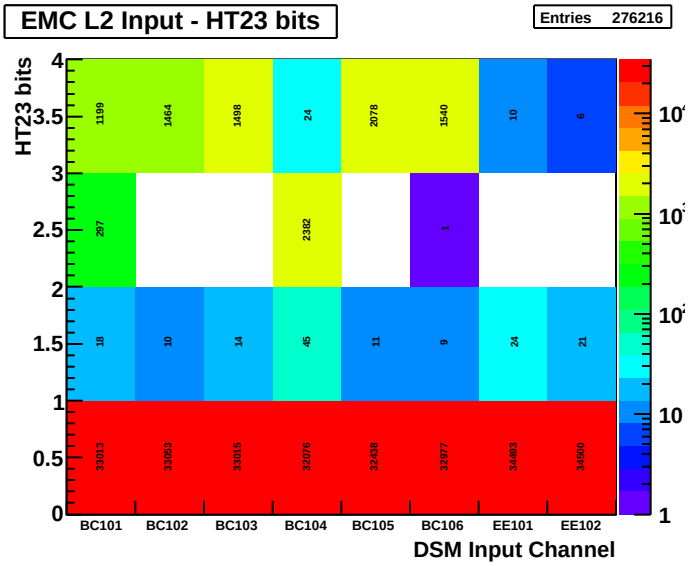

EMC L2 Input - JPZ/JPC bits
Entries 1859
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

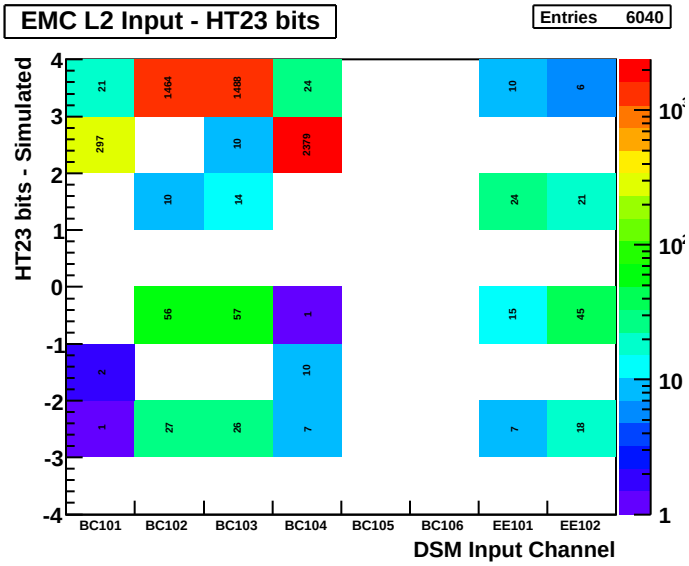

EMC L2 Input - Partial JP Sum
Entries 276216
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

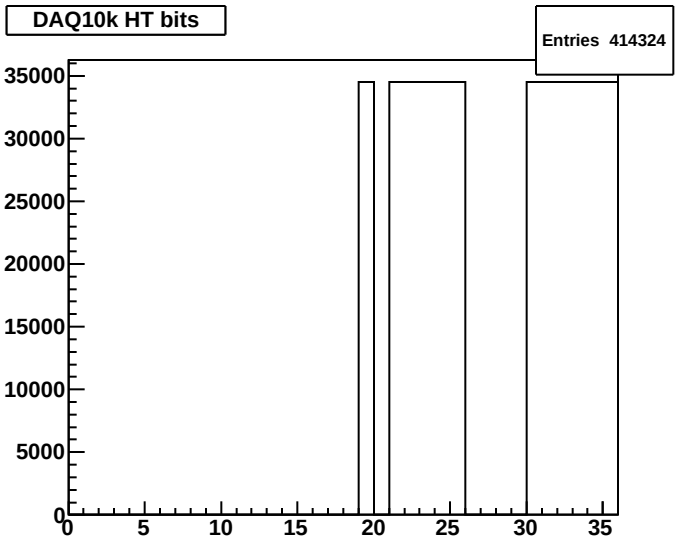

EMC L2 Input - Partial JP Sum
Entries 68581
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

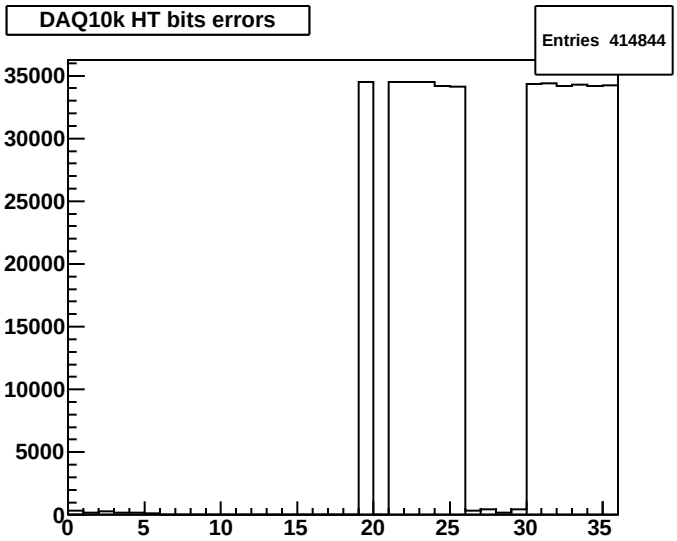

EMC L2 Input - HT01 bits/Partial JP ID
Entries 276216
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

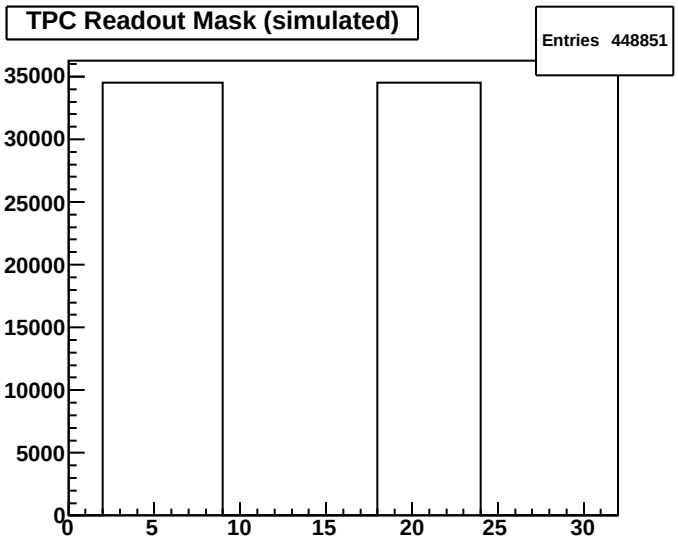

EMC L2 Input - HT01 bits/Partial JP ID
Entries 35456
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

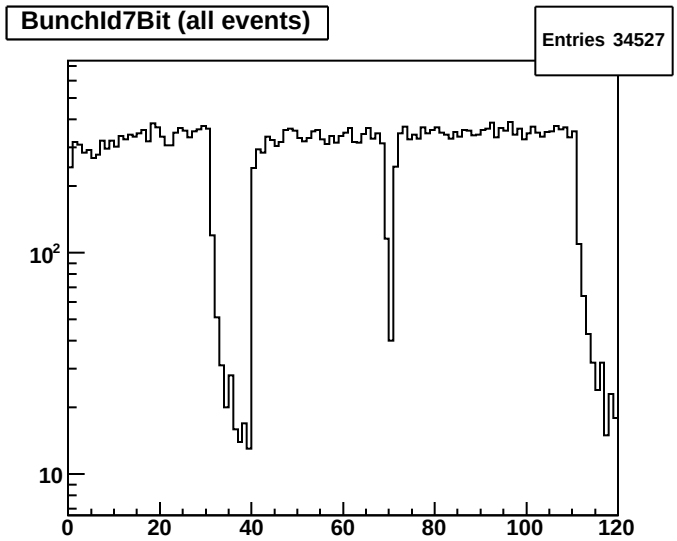

EMC L2 Input - HT23 bits
Entries 276216
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

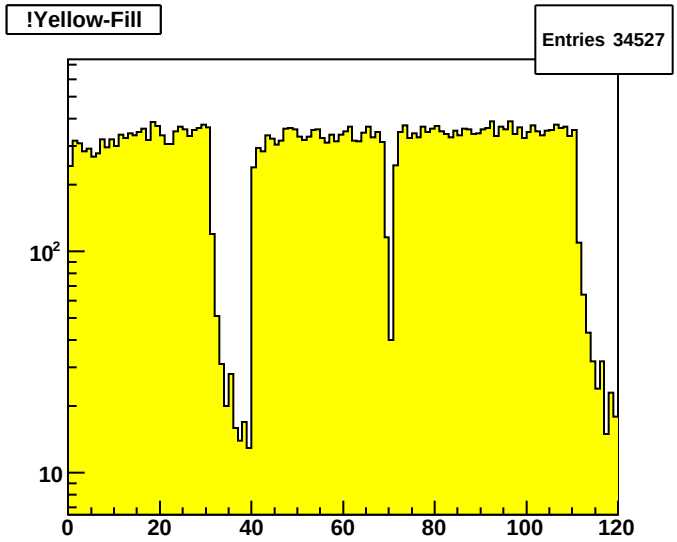

EMC L2 Input - HT23 bits
Entries 6040
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

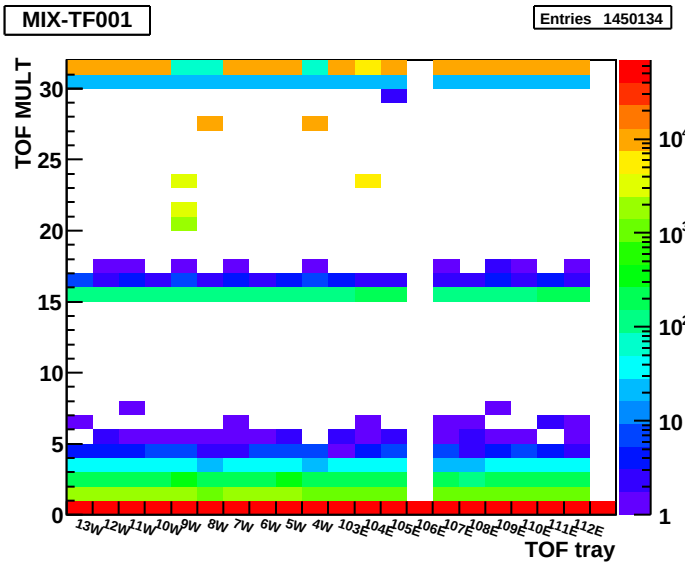

DAQ10k HT bits
Entries 414324
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

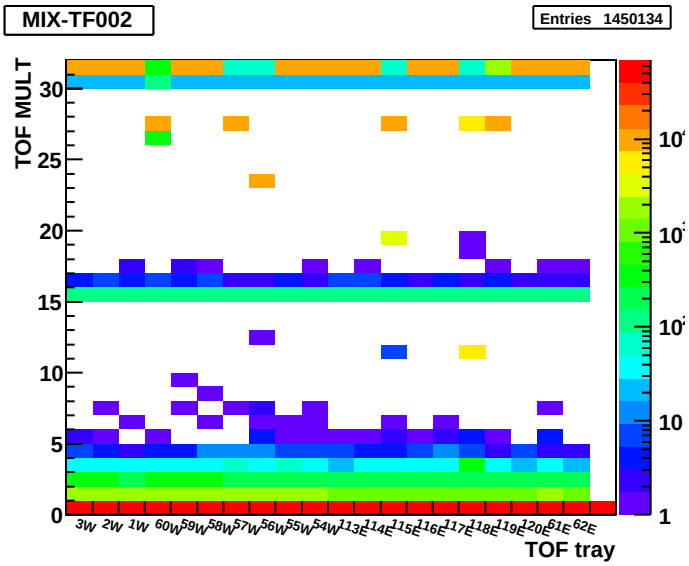

DAQ10k HT bits errors
Entries 414844
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

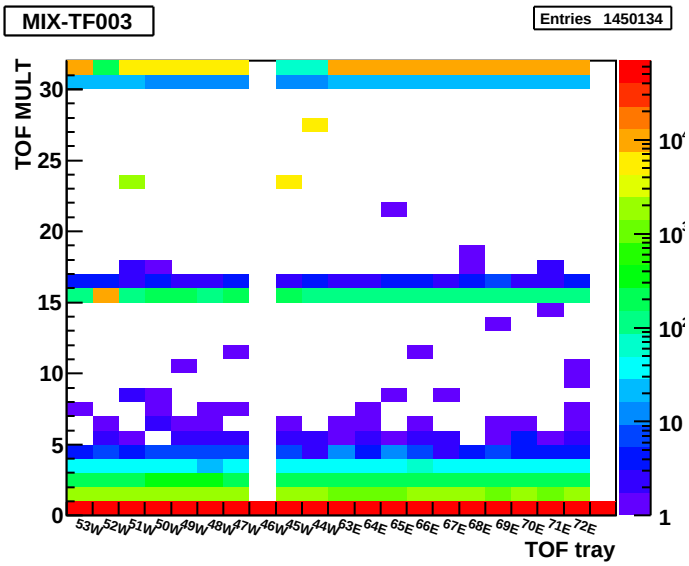

TPC Readout Mask (simulated)
Entries 448851
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

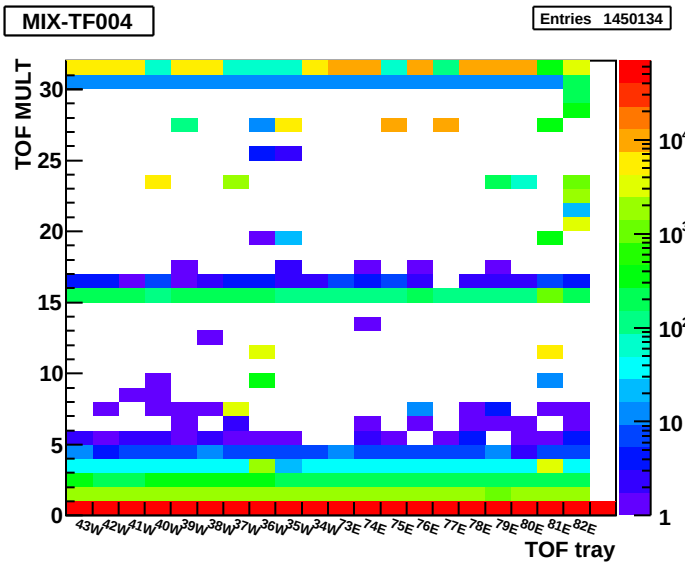

BunchId7Bit (all events)
Entries 34527
10^2
10
0 20 40 60 80 100 120

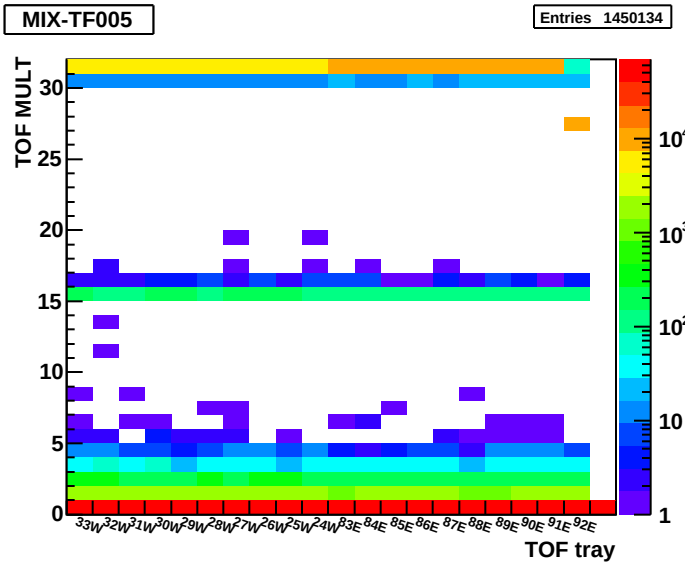

!Yellow-Fill
Entries 34527
10^2
10
0 20 40 60 80 100 120

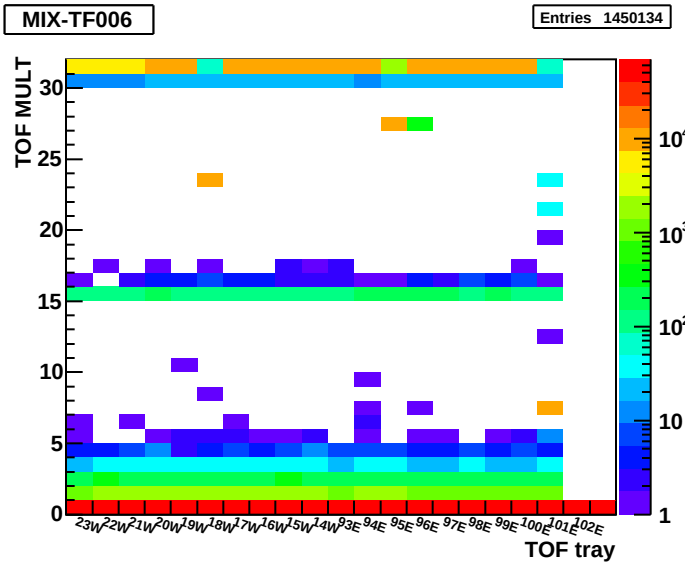

MIX-TF001
Entries 1450134
TOF MULT
TOF tray

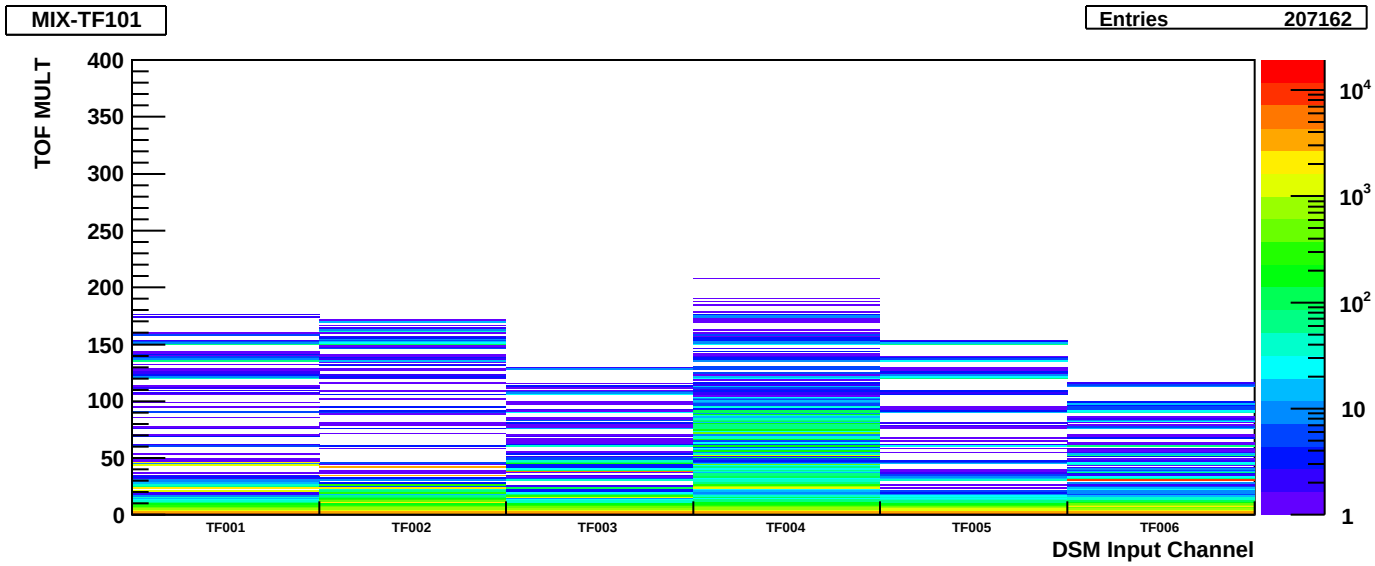

MIX-TF002
Entries 1450134
TOF MULT
TOF tray

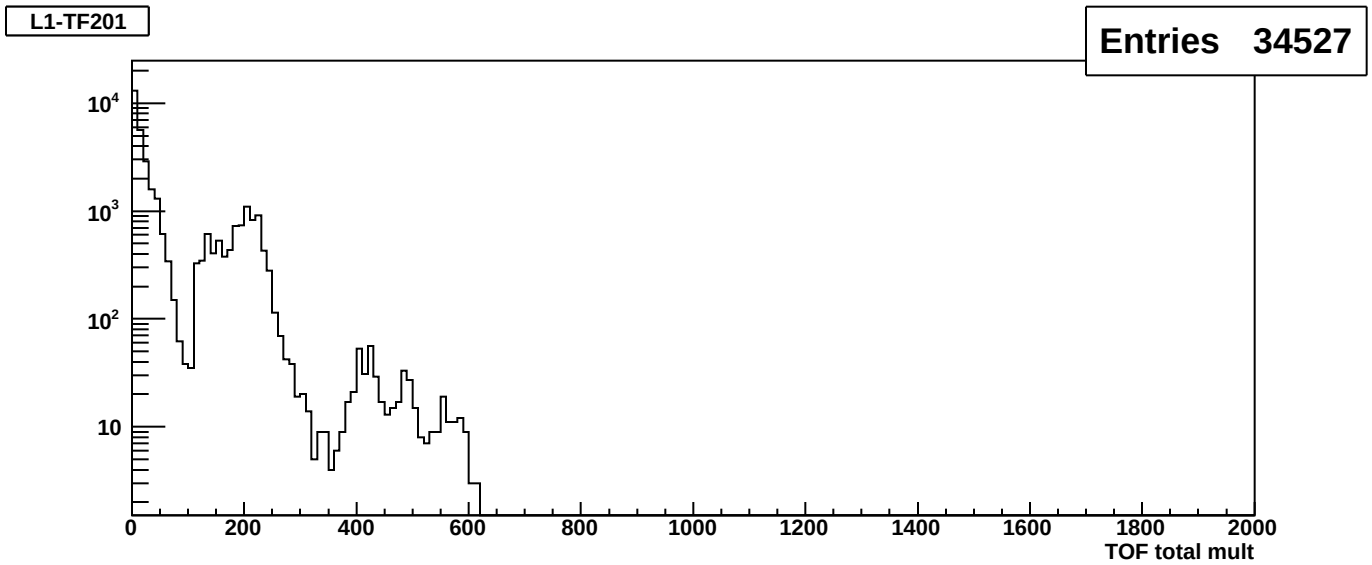

MIX-TF003
Entries 1450134
TOF MULT
TOF tray

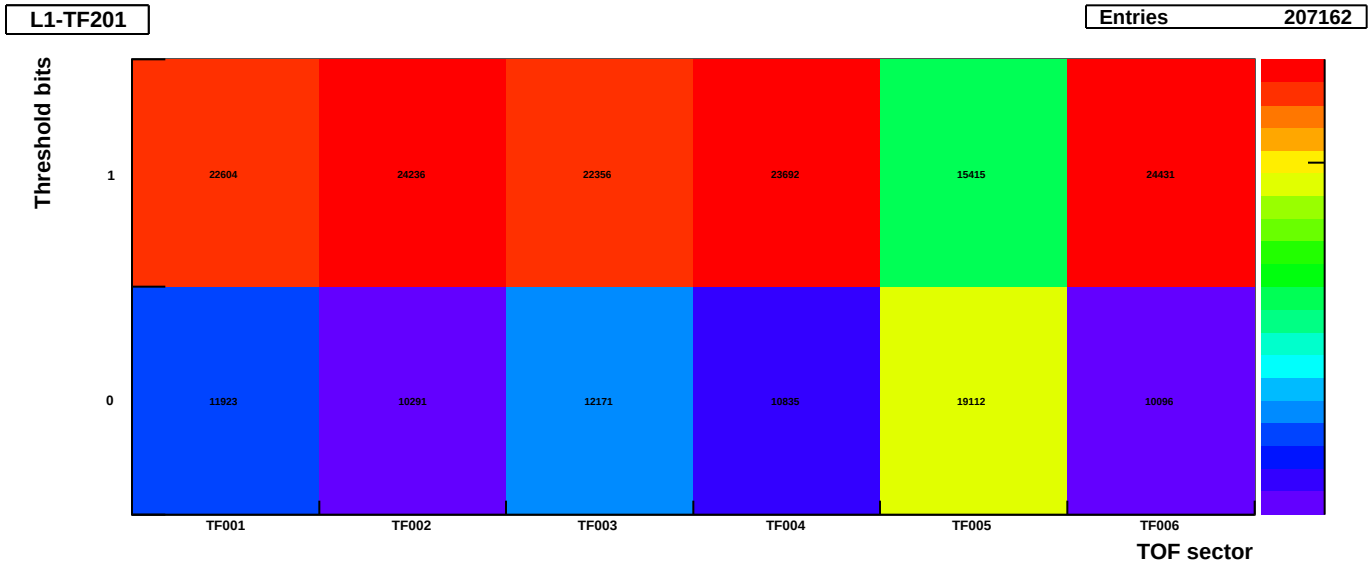

MIX-TF004
Entries 1450134
TOF MULT
TOF tray

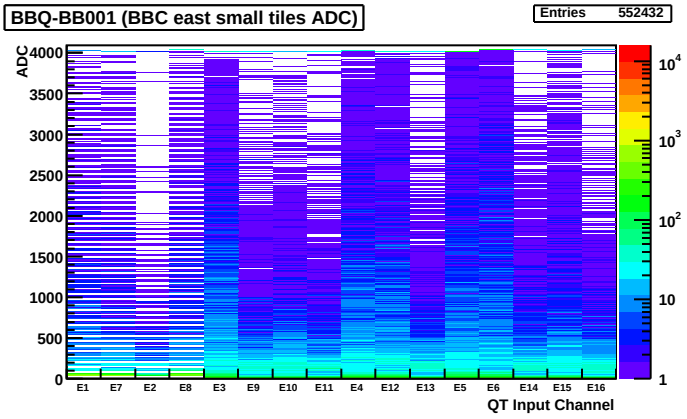

MIX-TF005
Entries 1450134
TOF MULT
TOF tray

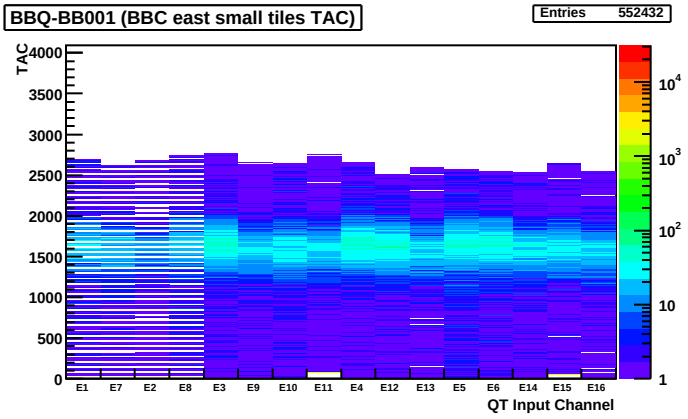

MIX-TF006
Entries 1450134
TOF MULT
TOF tray

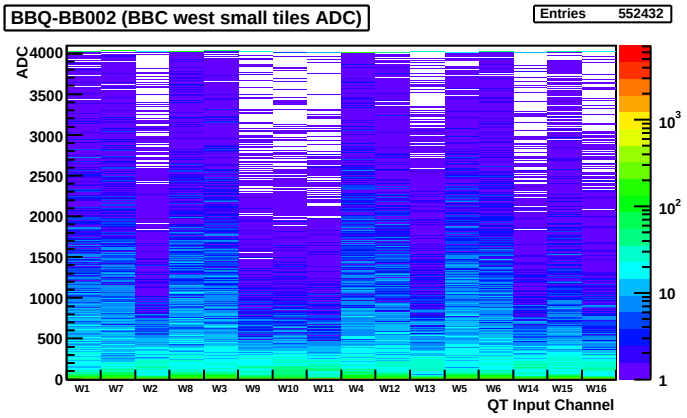

MIX-TF101
Entries 207162
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

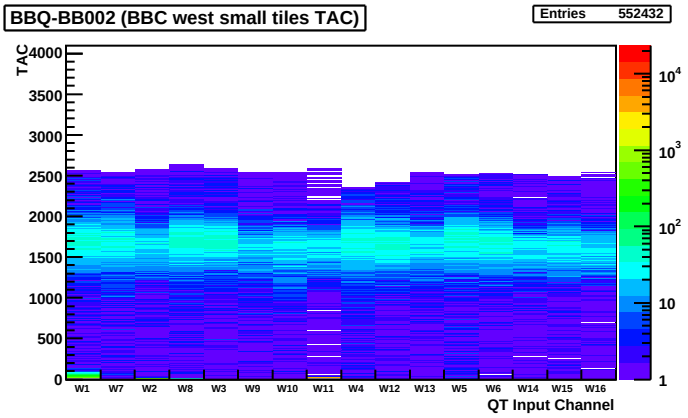

L1-TF201
Entries 34527
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

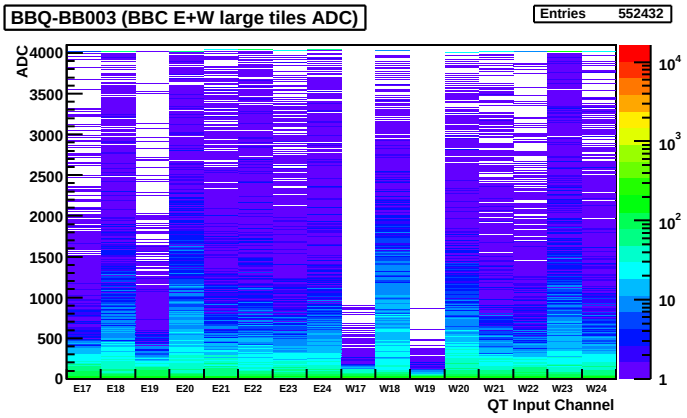

L1-TF201
Entries 207162
Threshold bits
1
0
22604
24236
22356
23692
15415
24431
11923
10291
12171
10835
19112
10096
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

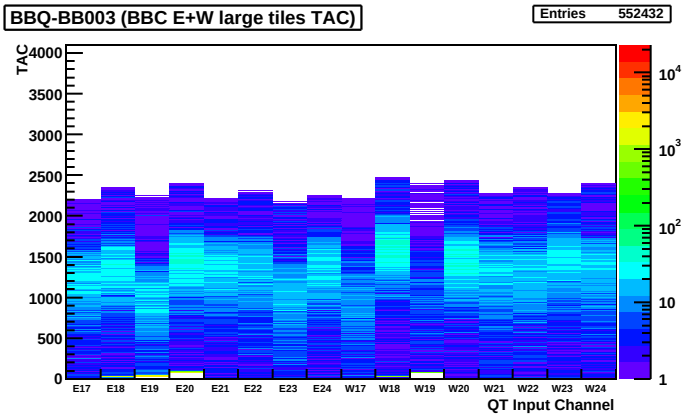

BBQ-BB001 (BBC east small tiles ADC)
Entries 552432
ADC
QT Input Channel

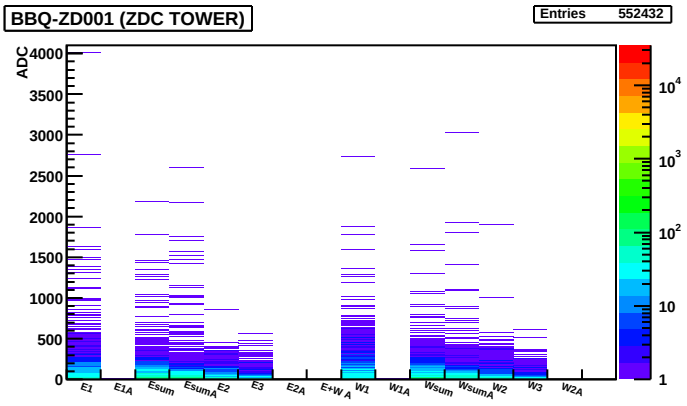

BBQ-BB001 (BBC east small tiles TAC)
Entries 552432
TAC
QT Input Channel

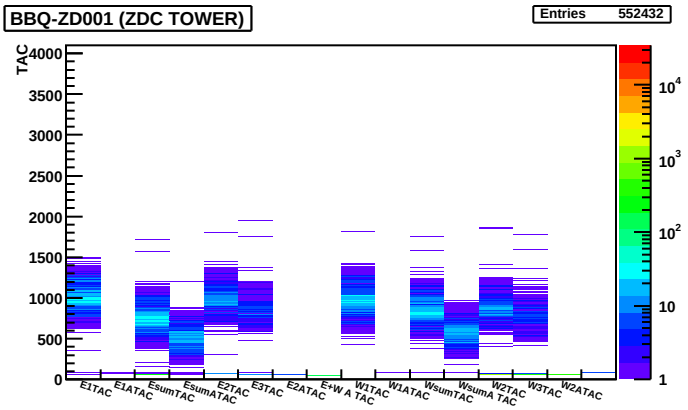

BBQ-BB002 (BBC west small tiles ADC)
Entries 552432
ADC
QT Input Channel

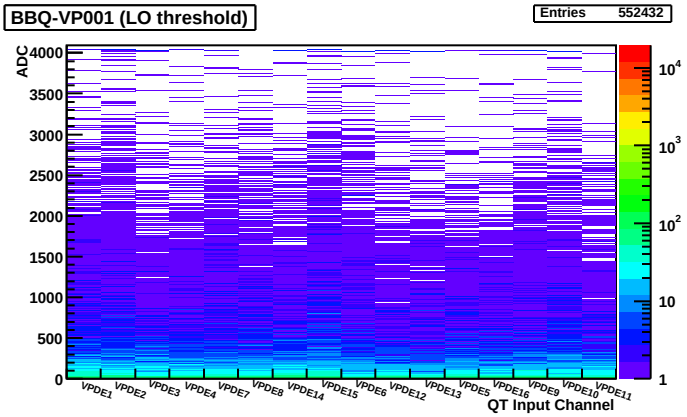

BBQ-BB002 (BBC west small tiles TAC)
Entries 552432
TAC
QT Input Channel

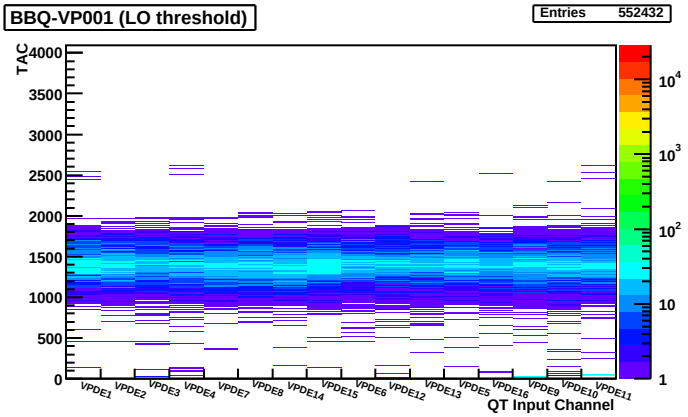

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 552432
ADC
QT Input Channel

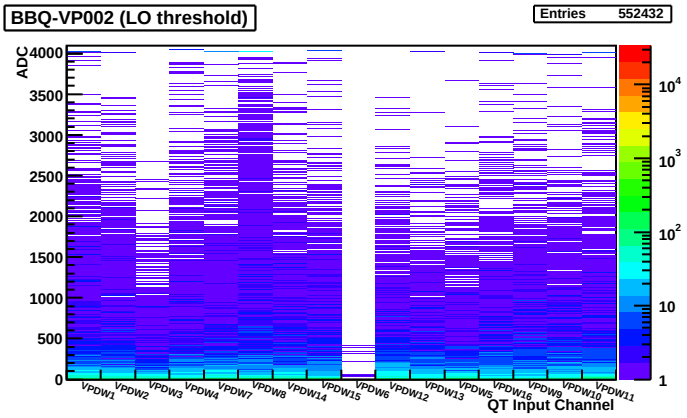

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 552432
TAC
QT Input Channel

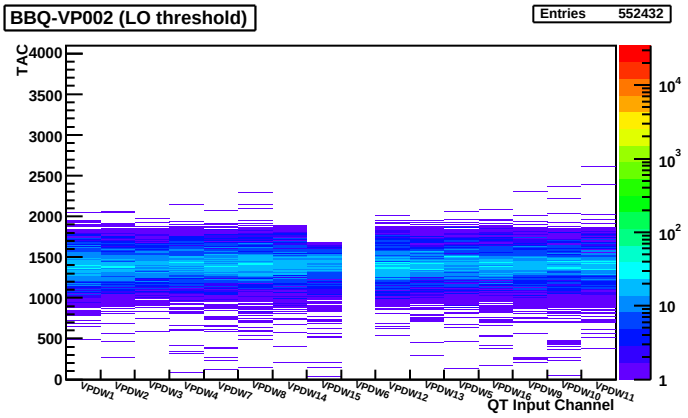

BBQ-ZD001 (ZDC TOWER)
Entries 552432
ADC

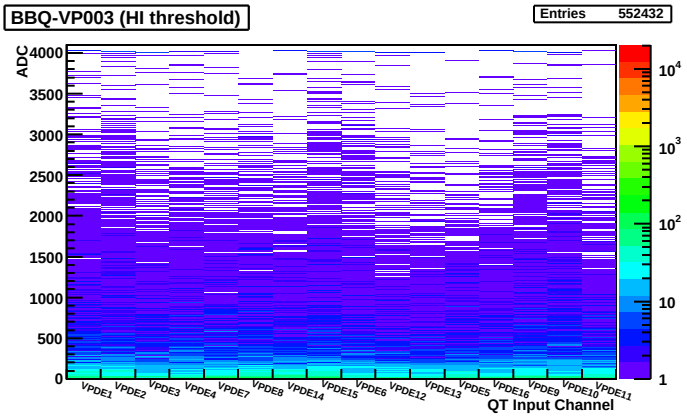

BBQ-ZD001 (ZDC TOWER)
Entries 552432
TAC

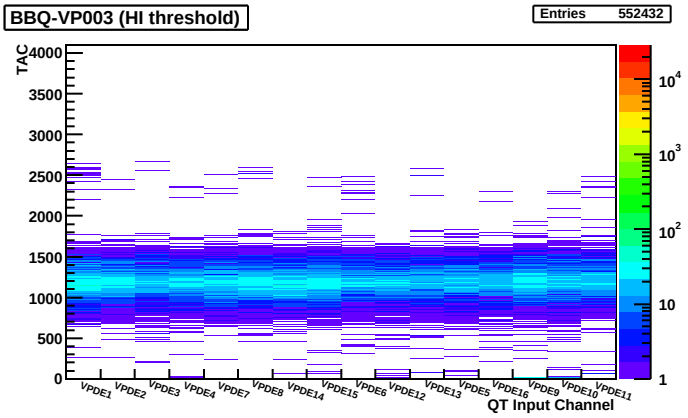

BBQ-VP001 (LO threshold)
Entries 552432
ADC
QT Input Channel

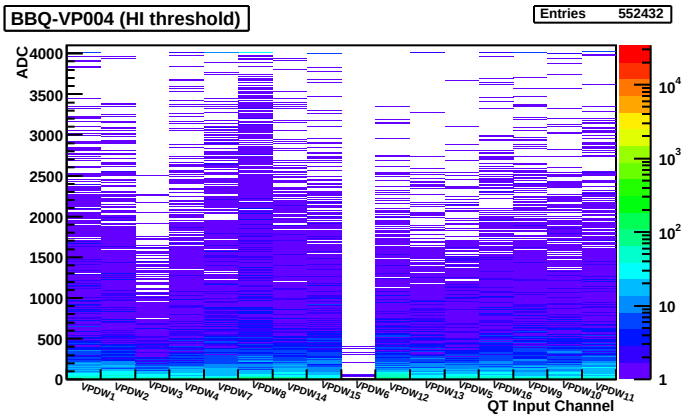

BBQ-VP001 (LO threshold)
Entries 552432
TAC
QT Input Channel

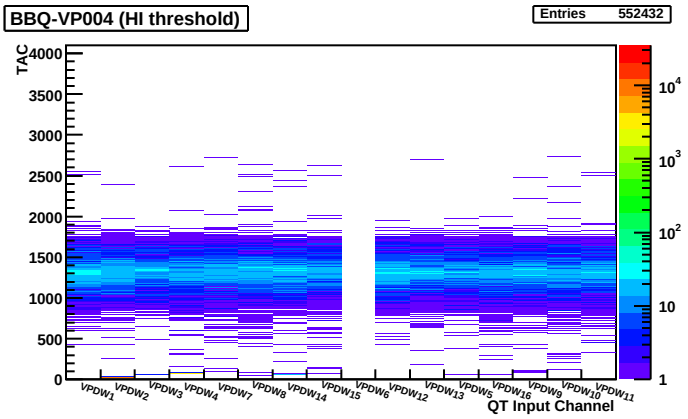

BBQ-VP002 (LO threshold)
Entries 552432
ADC
QT Input Channel

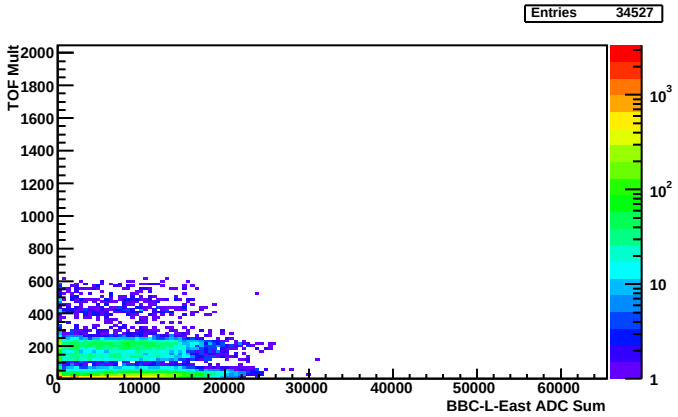

BBQ-VP002 (LO threshold)
Entries 552432
TAC
QT Input Channel

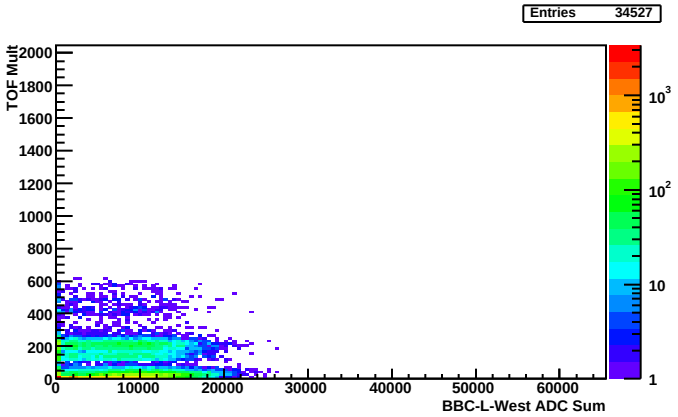

BBQ-VP003 (HI threshold)
Entries 552432
ADC
QT Input Channel

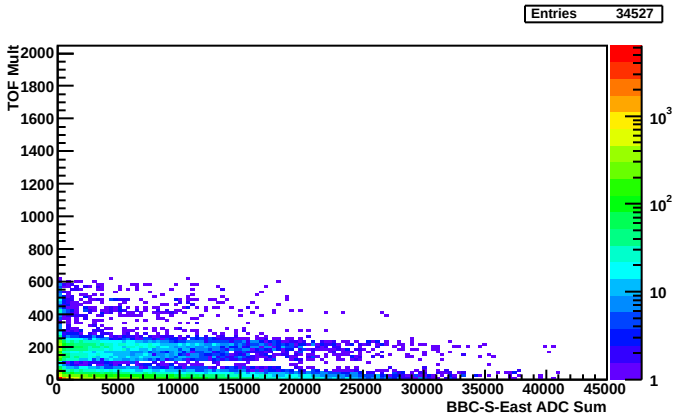

BBQ-VP003 (HI threshold)
Entries 552432
TAC
QT Input Channel

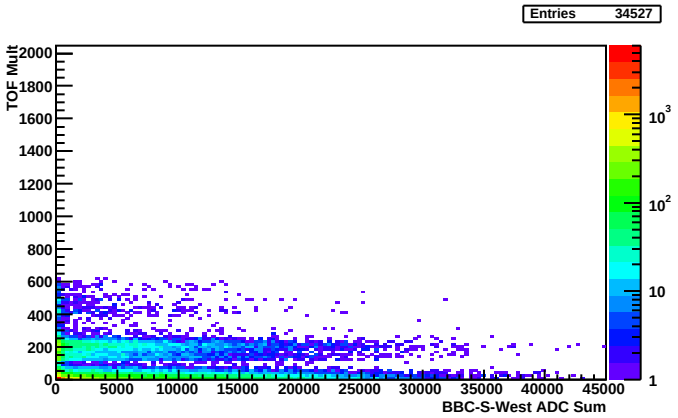

BBQ-VP004 (HI threshold)
Entries 552432
ADC
QT Input Channel

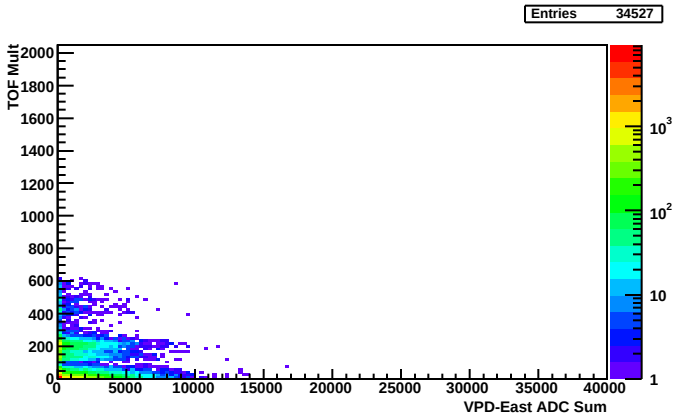

BBQ-VP004 (HI threshold)
Entries 552432
TAC
QT Input Channel

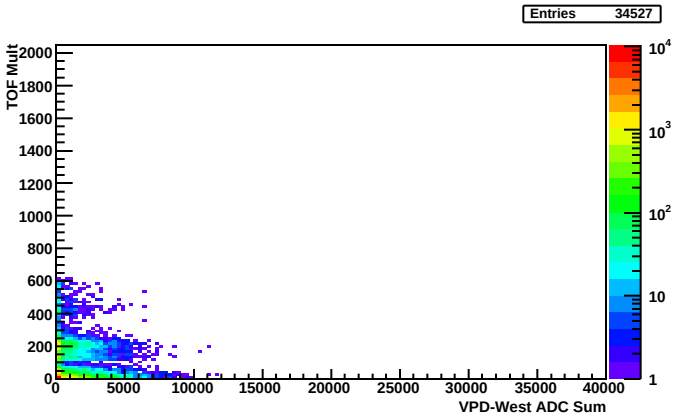

Entries 34527
TOF Mult
BBC-L-East ADC Sum

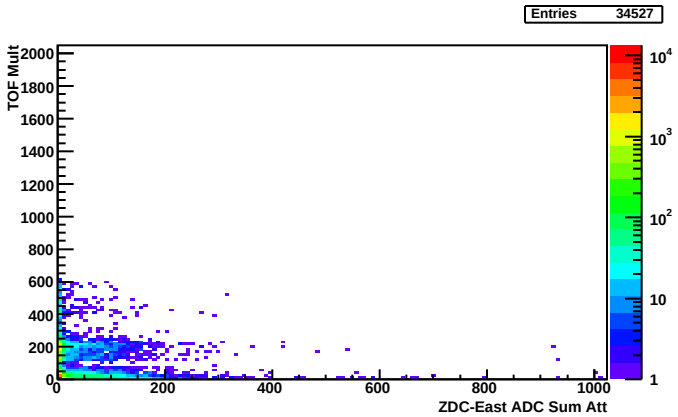

Entries 34527
TOF Mult
BBC-L-West ADC Sum

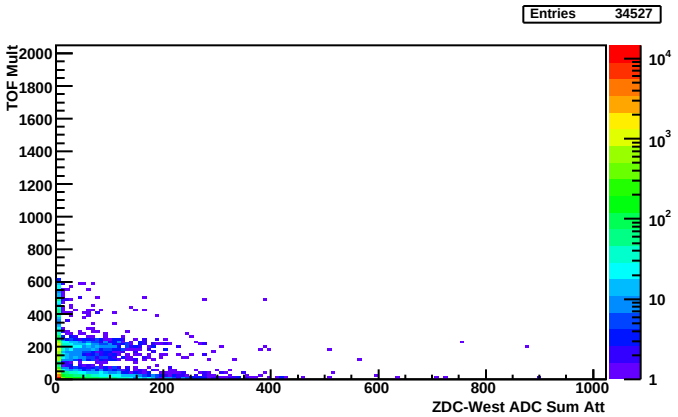

Entries 34527
TOF Mult
BBC-S-East ADC Sum

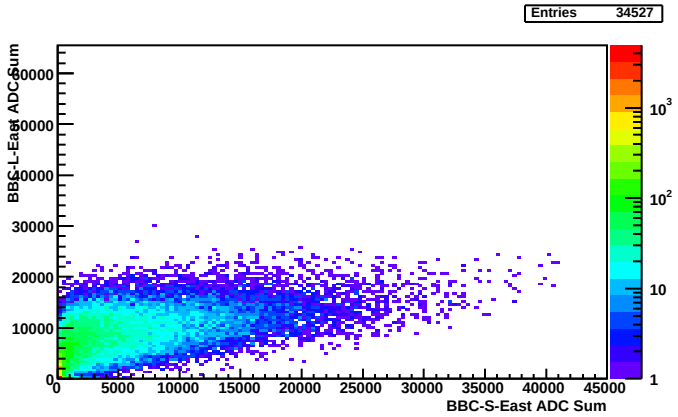

Entries 34527
TOF Mult
BBC-S-West ADC Sum

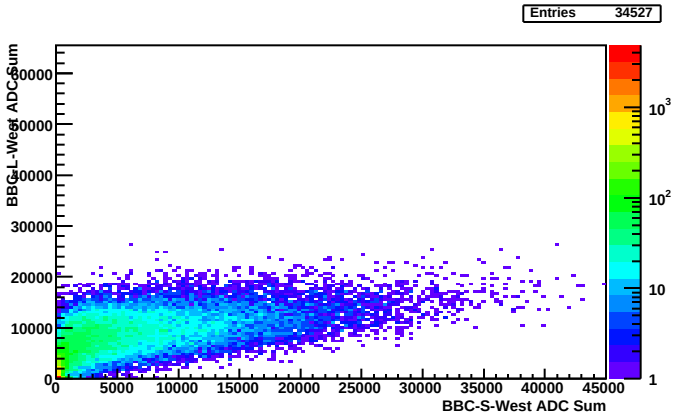

Entries 34527
TOF Mult
VPD-East ADC Sum

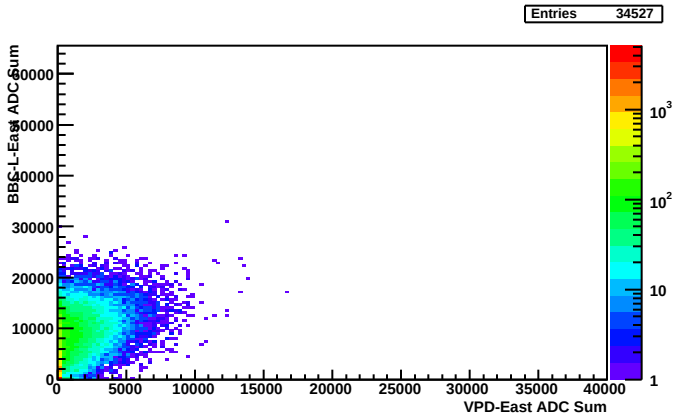

Entries 34527
TOF Mult
VPD-West ADC Sum

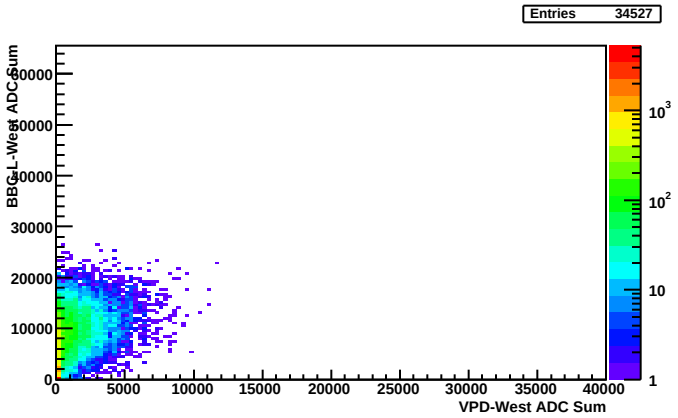

Entries 34527
TOF Mult
ZDC-East ADC Sum Att

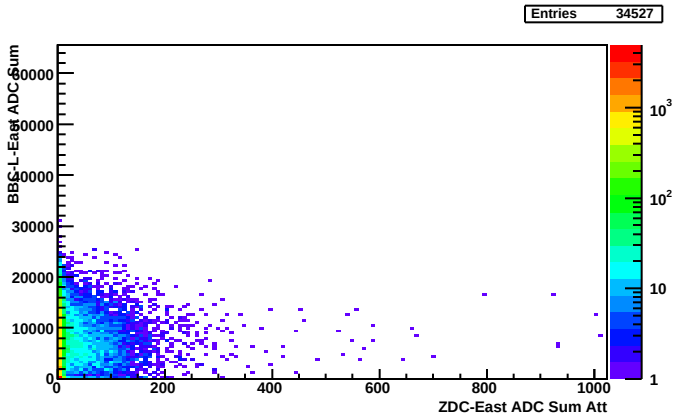

Entries 34527
TOF Mult
ZDC-West ADC Sum Att

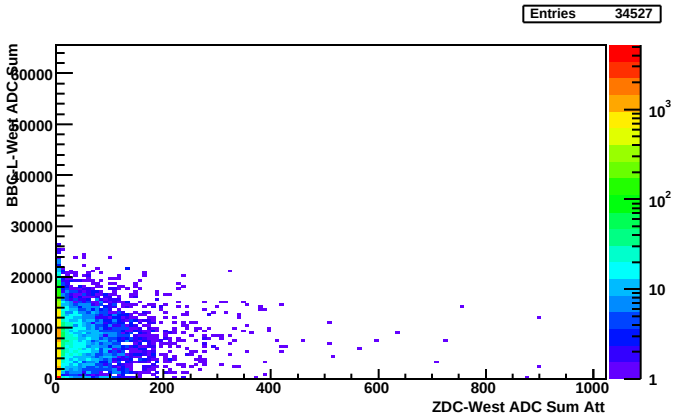

Entries 34527
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 34527
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 34527
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 34527
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 34527
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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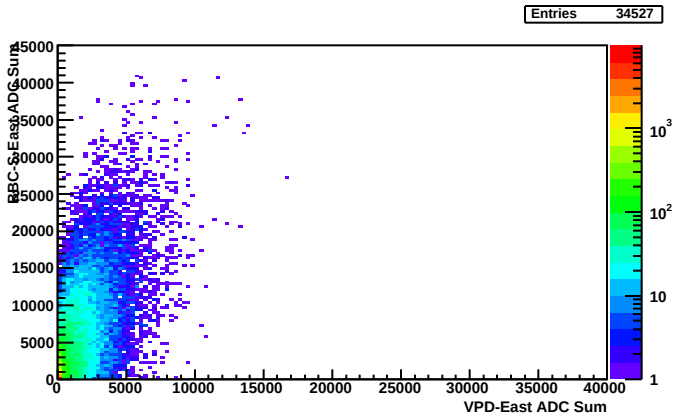
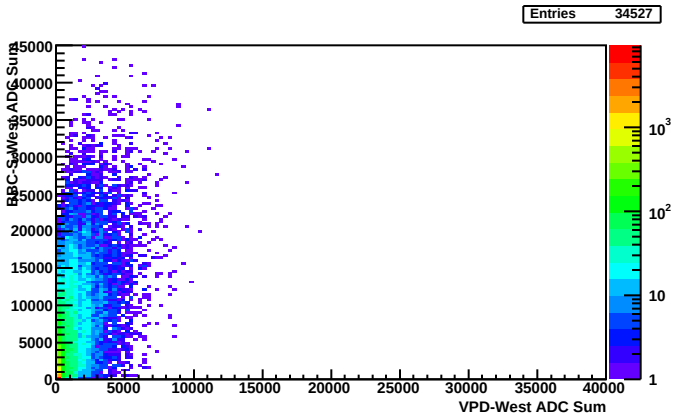
BBC-L-West ADC Sum
ZDC-West ADC Sum Att


Entries 34527
BBC-S-East ADC Sum
VPD-East ADC Sum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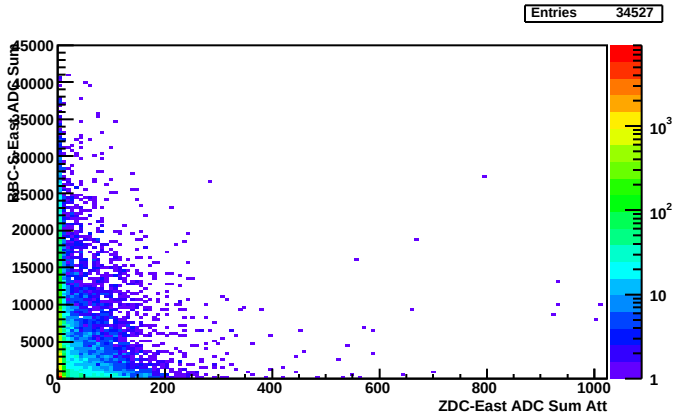
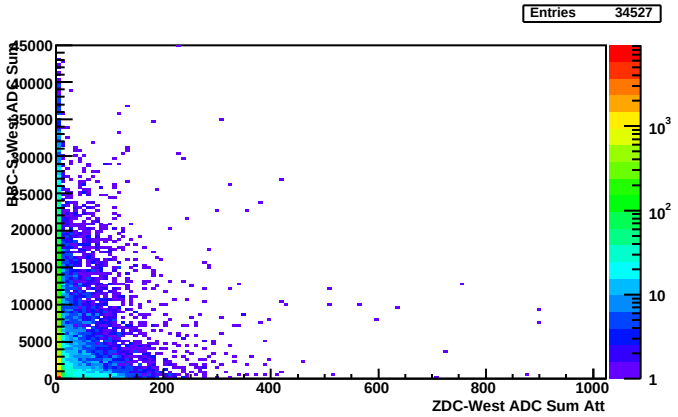
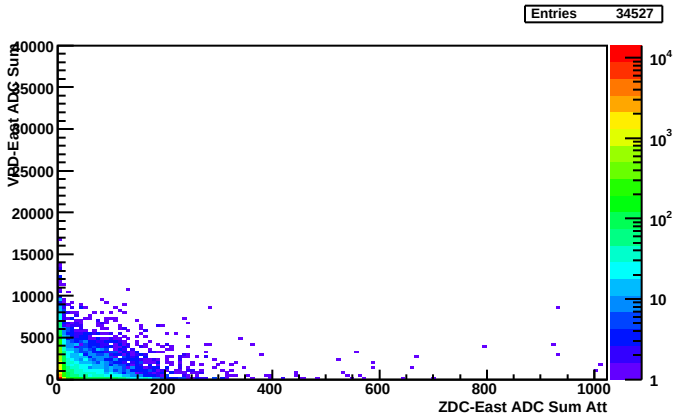
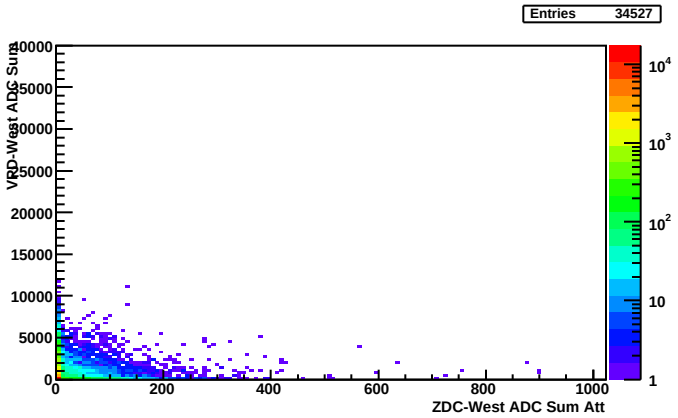
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 34527
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 34527
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 34527
VPD-East ADC Sum
ZDC-East ADC Sum Att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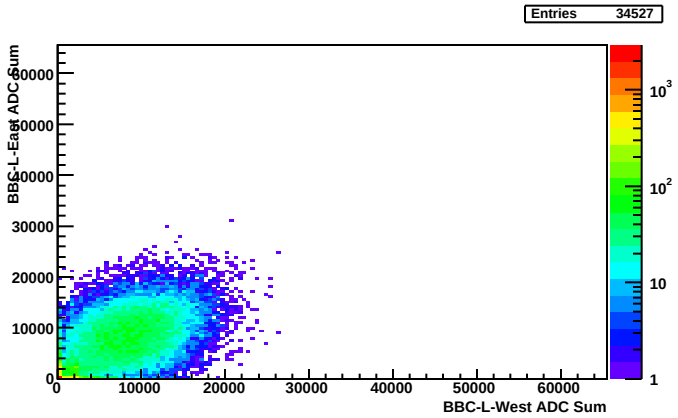
VPD-West ADC Sum
ZDC-West ADC Sum Att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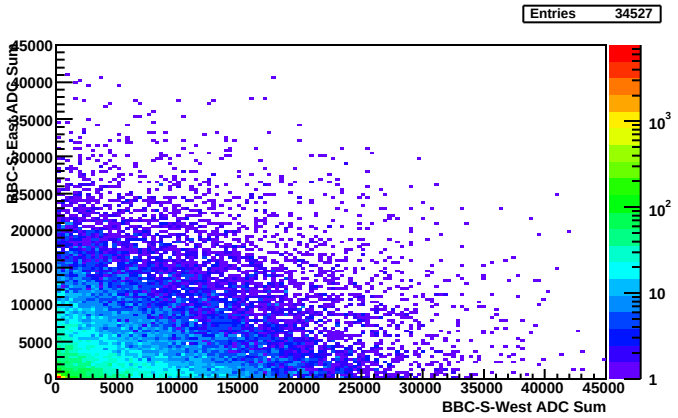
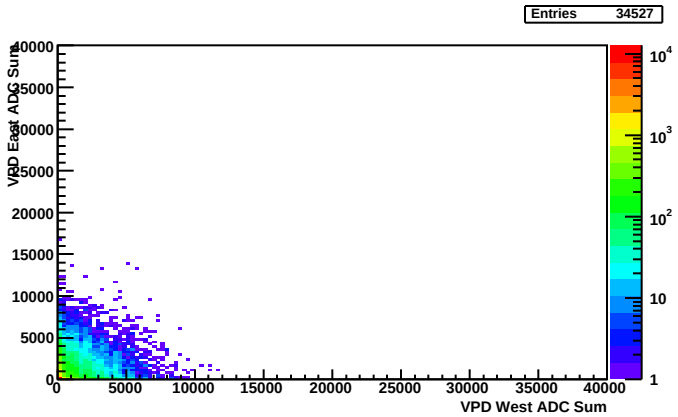
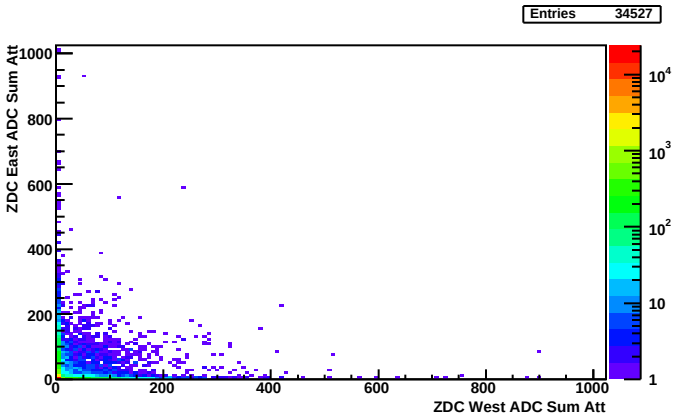
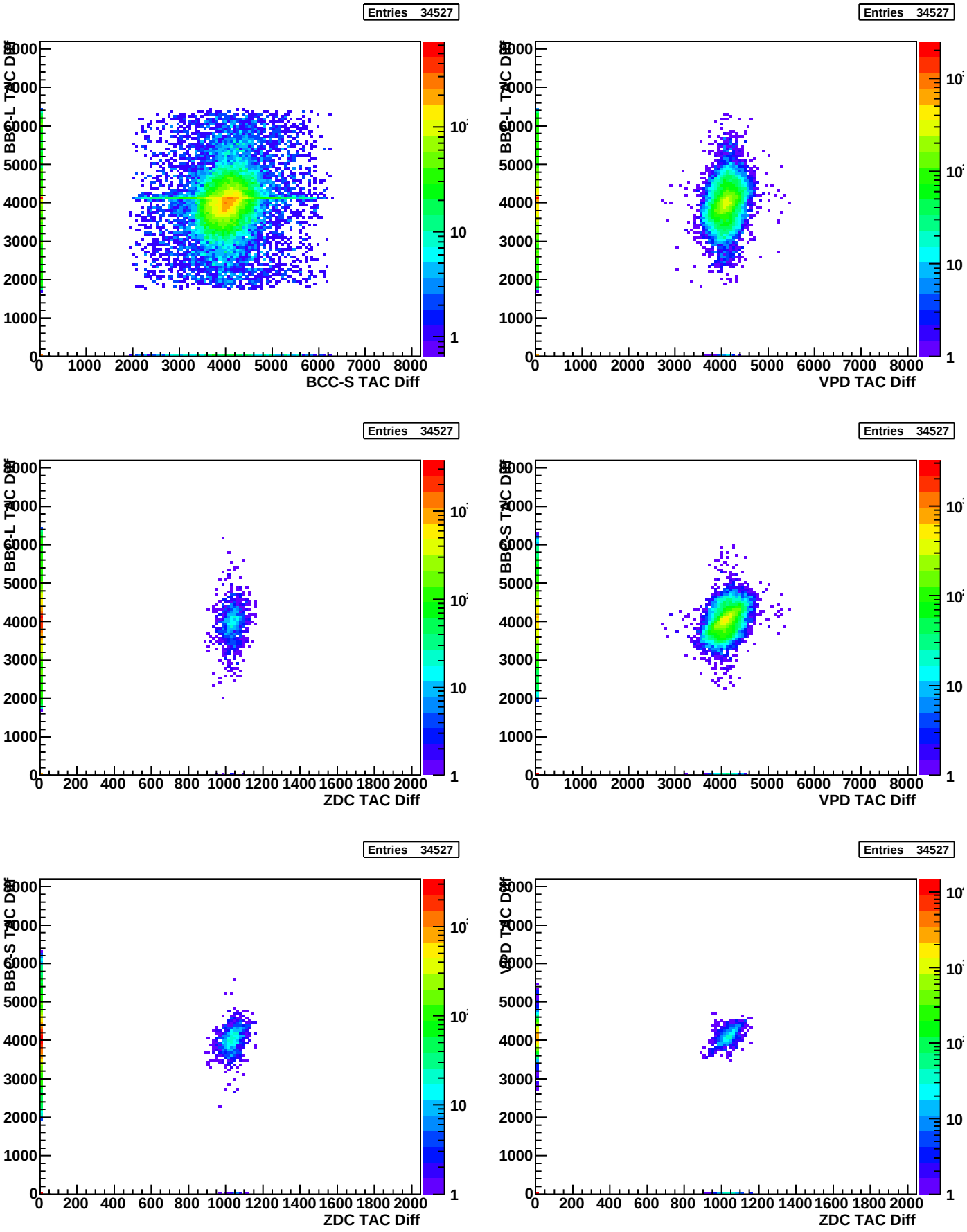
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 34527
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 34527
VPD East ADC Sum
VPD West ADC Sum


Entries 34527
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 34527
BBC-L TAC Diff
BCC-S TAC Diff
Entries 34527
BBC-L TAC Diff
VPD TAC Diff
Entries 34527
BBC-L TAC Diff
ZDC TAC Diff
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VPD TAC Diff
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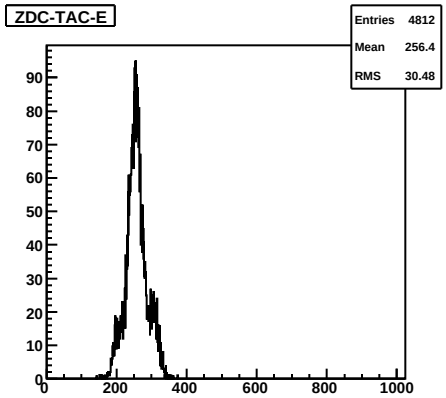
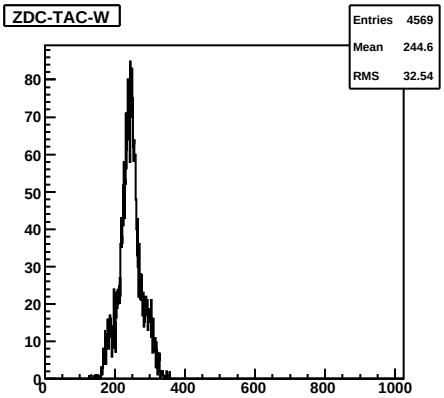
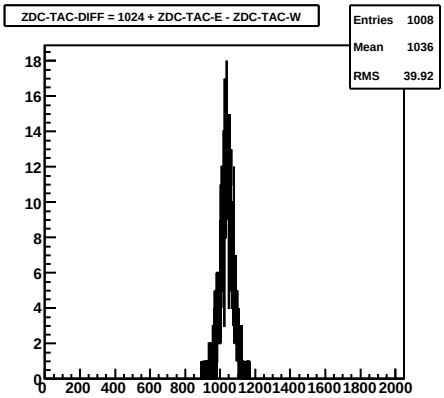
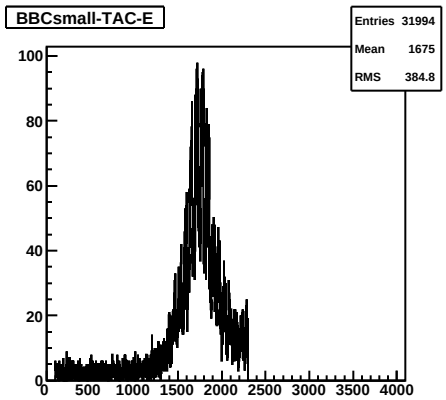
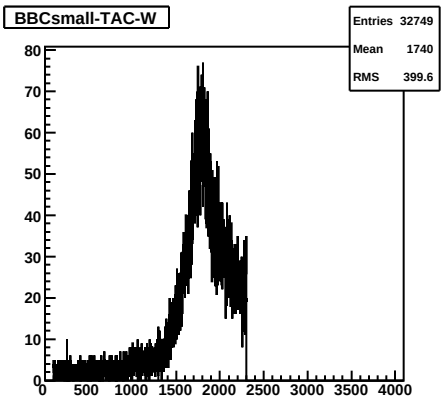
BBC-S TAC Diff
ZDC TAC Diff
Entries 34527
VPD TAC Diff
ZDC TAC Diff

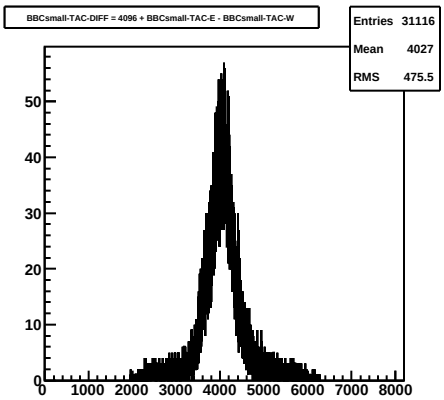

ZDC-TAC-E
Entries 4812
Mean 256.4
RMS 30.48

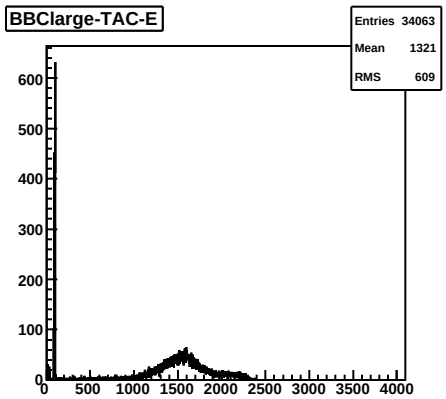

ZDC-TAC-W
Entries 4569
Mean 244.6
RMS 32.54

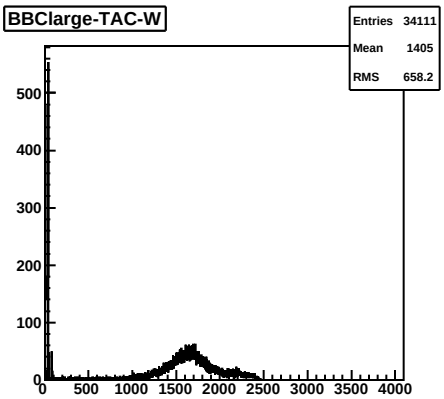

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1008
Mean 1036
RMS 39.92

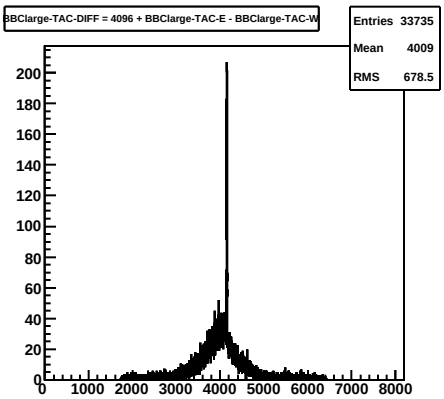

BBCsmall-TAC-E
Entries 31994
Mean 1675
RMS 384.8

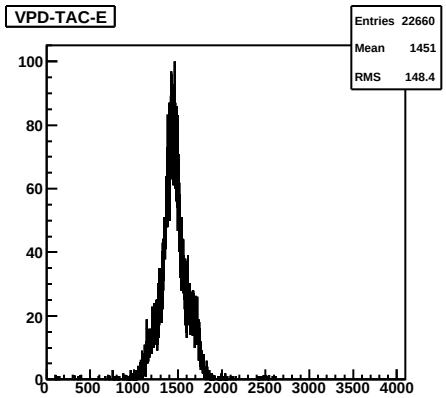

BBCsmall-TAC-W
Entries 32749
Mean 1740
RMS 399.6

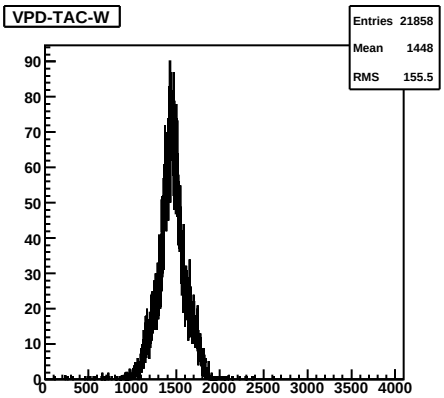

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 31116
Mean 4027
RMS 475.5

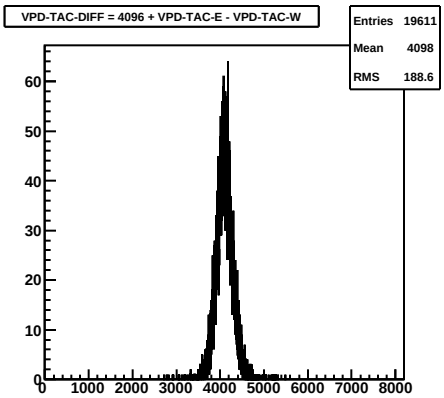

BBClarge-TAC-E
Entries 34063
Mean 1321
RMS 609

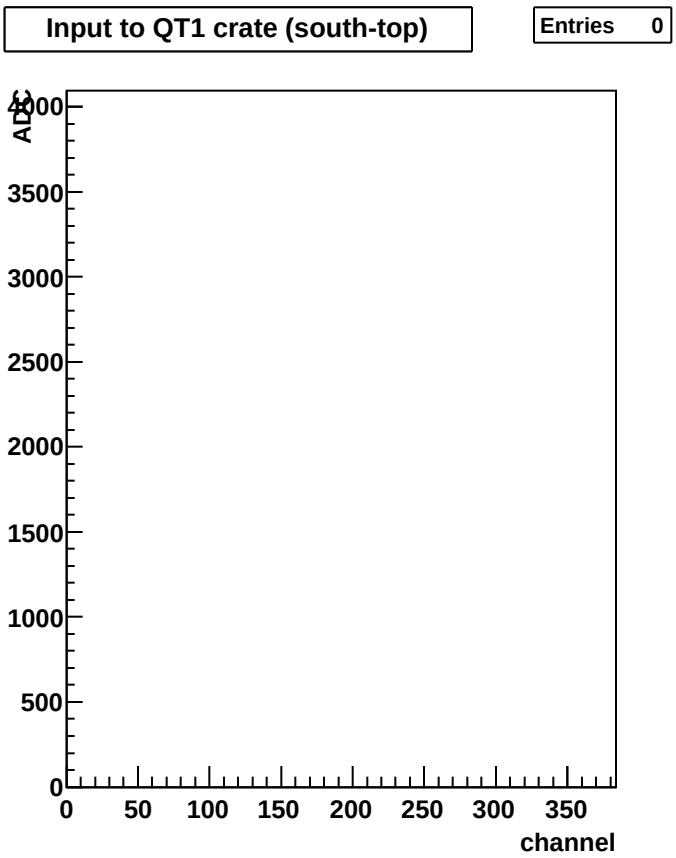

BBClarge-TAC-W
Entries 34111
Mean 1405
RMS 658.2

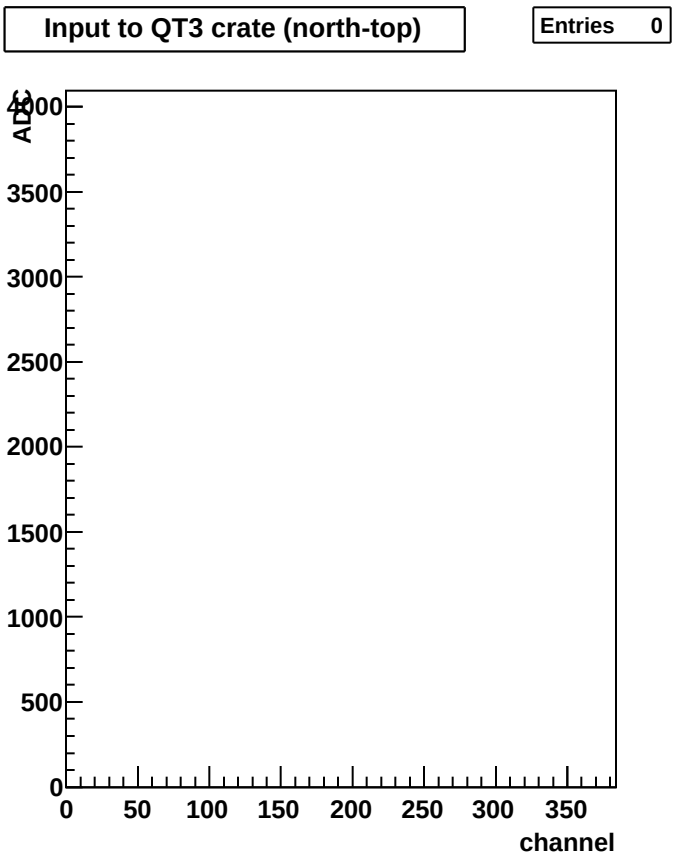

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 33735
Mean 4009
RMS 678.5

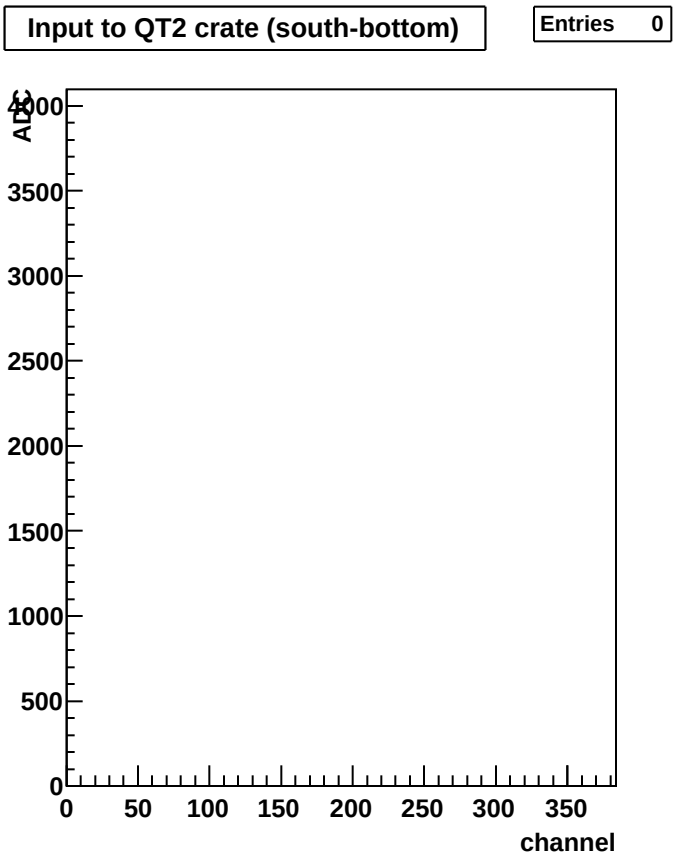

VPD-TAC-E
Entries 22660
Mean 1451
RMS 148.4

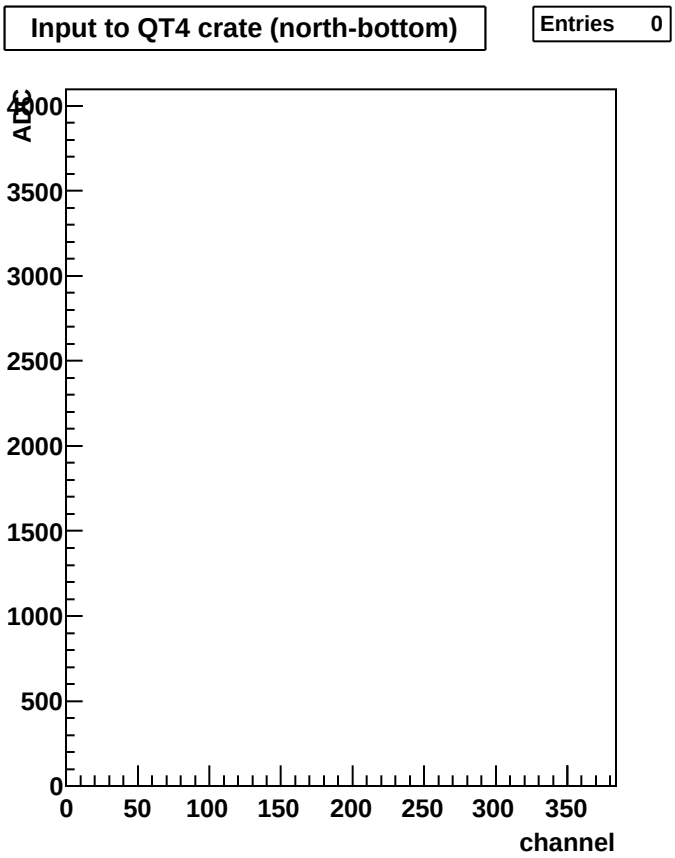

VPD-TAC-W
Entries 21858
Mean 1448
RMS 155.5

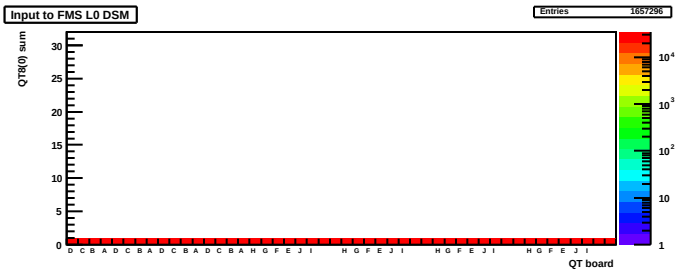

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19611
Mean 4098
RMS 188.6

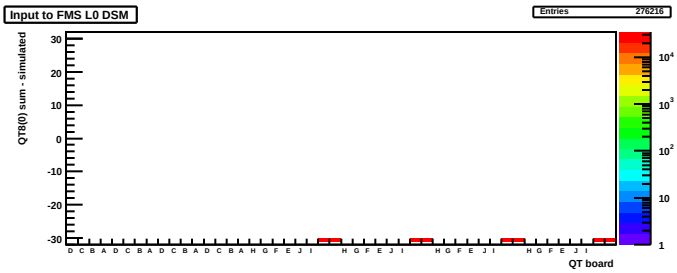

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

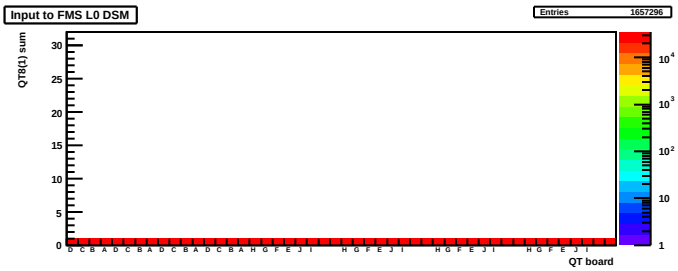

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

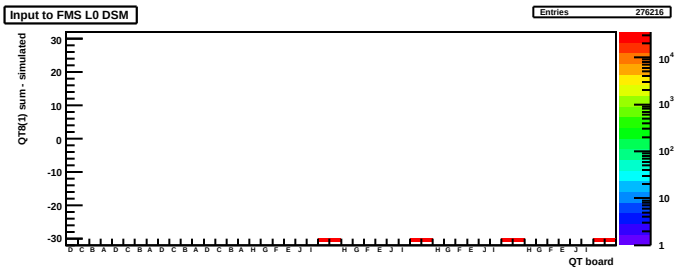

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

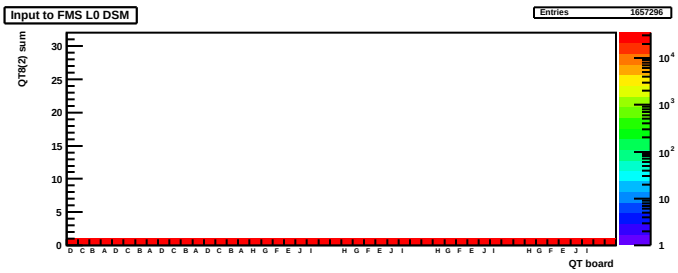

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

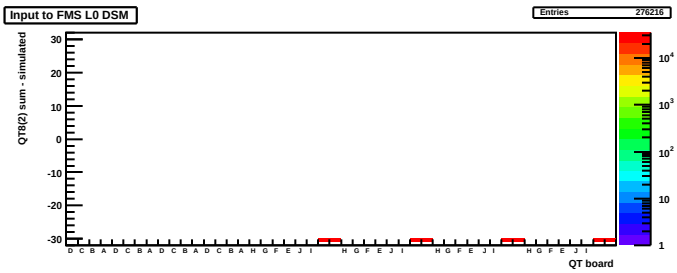

Input to FMS L0 DSM
Entries 1657296
QT8(0) sum
QT board

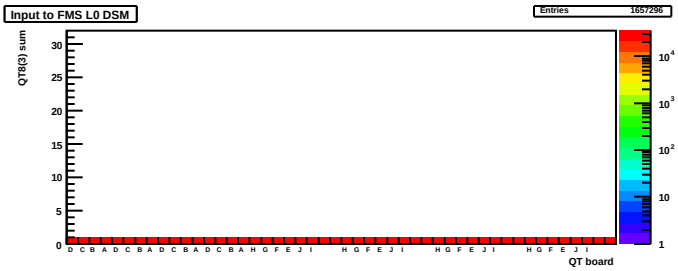

Input to FMS L0 DSM
Entries 276216
QT8(0) sum - simulated
QT board

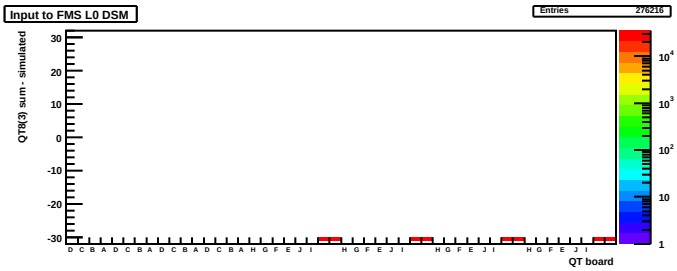

Input to FMS L0 DSM
Entries 1657296
QT8(1) sum
QT board

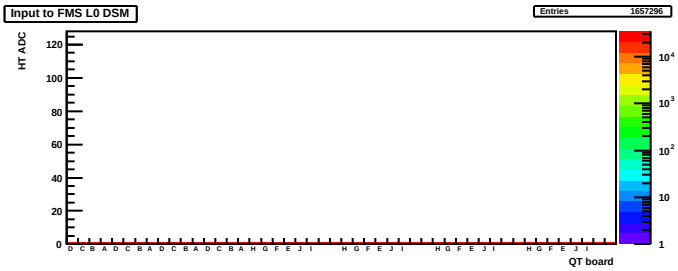

Input to FMS L0 DSM
Entries 276216
QT8(1) sum - simulated
QT board

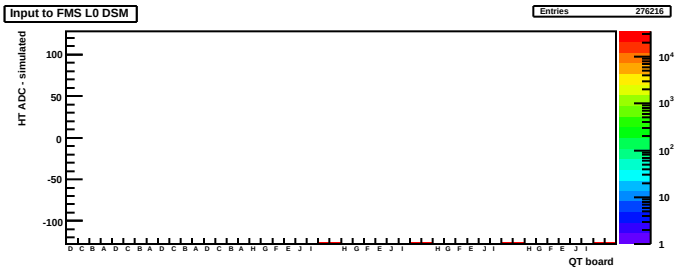

Input to FMS L0 DSM
Entries 1657296
QT8(2) sum
QT board

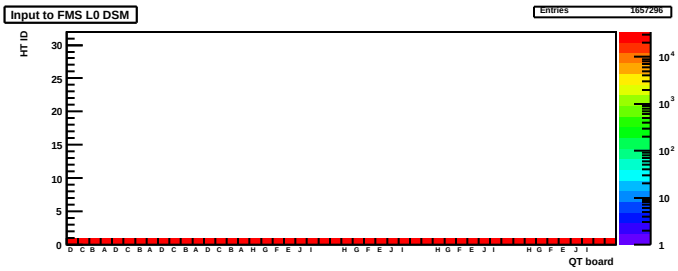

Input to FMS L0 DSM
Entries 276216
QT8(2) sum - simulated
QT board

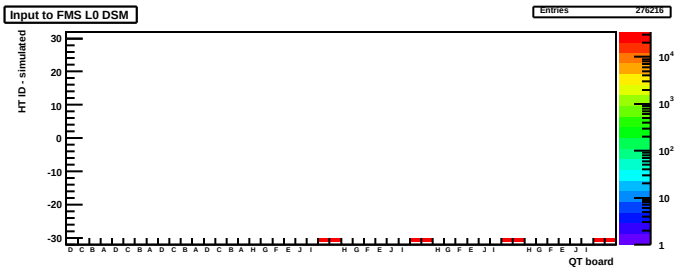

Input to FMS L0 DSM
Entries 1657296
QT8(3) sum
QT board

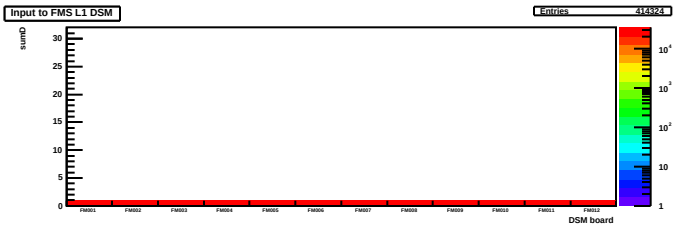

Input to FMS L0 DSM
Entries 276216
QT8(3) sum - simulated
QT board

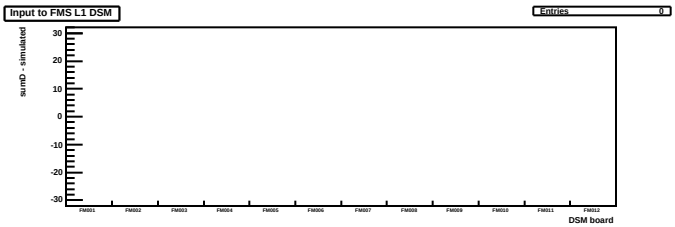

Input to FMS L0 DSM
Entries 1657296
HT ADC
QT board

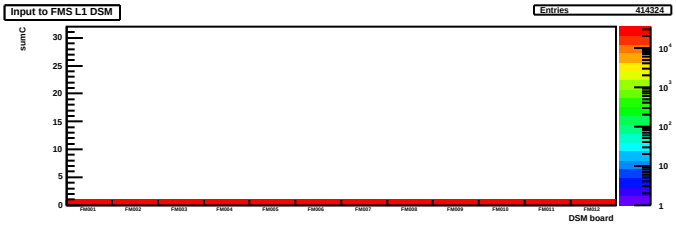

Input to FMS L0 DSM
Entries 276216
HT ADC - simulated
QT board

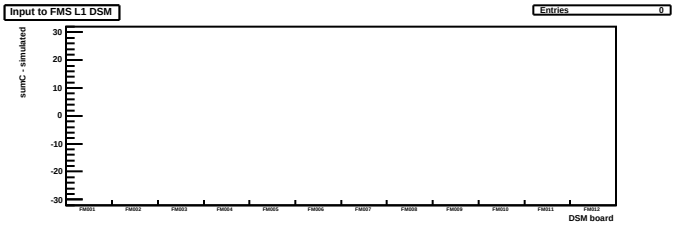

Input to FMS L0 DSM
Entries 1657296
HT ID
QT board

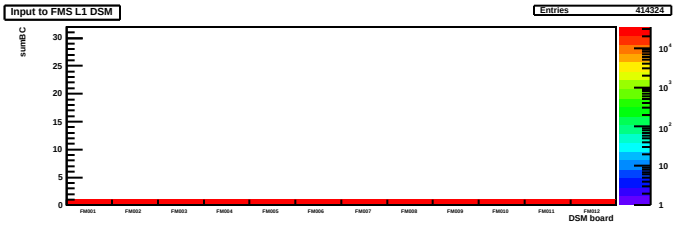

Input to FMS L0 DSM
Entries 276216
HT ID - simulated
QT board

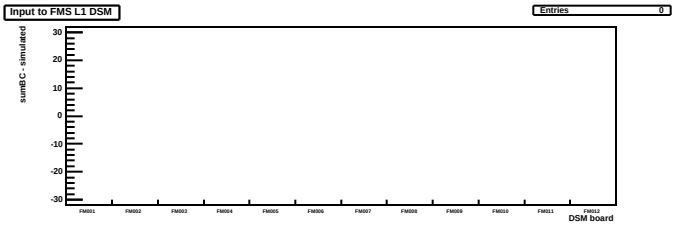

Input to FMS L1 DSM
Entries 414324
sumD
DSM board

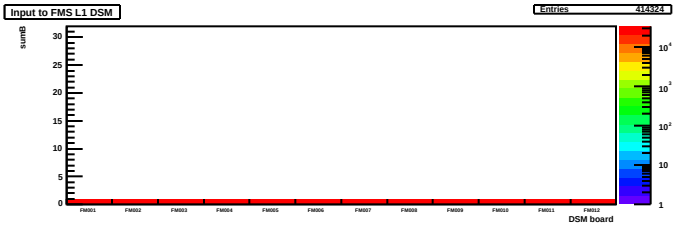

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

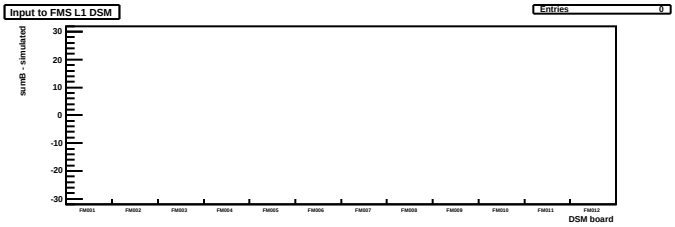

Input to FMS L1 DSM
Entries 414324
sumC
DSM board

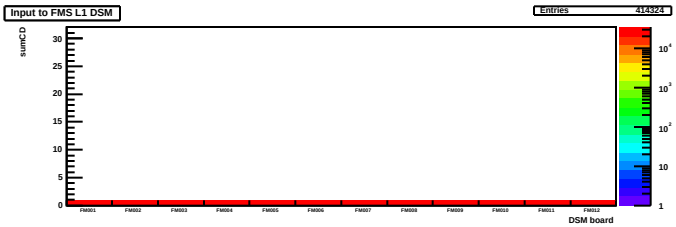

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

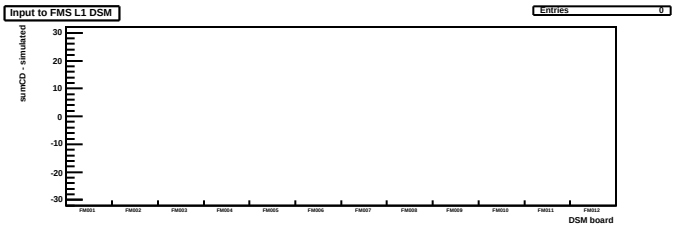

Input to FMS L1 DSM
Entries 414324
sumBC
DSM board

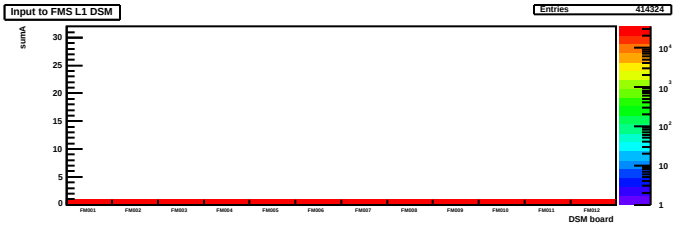

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

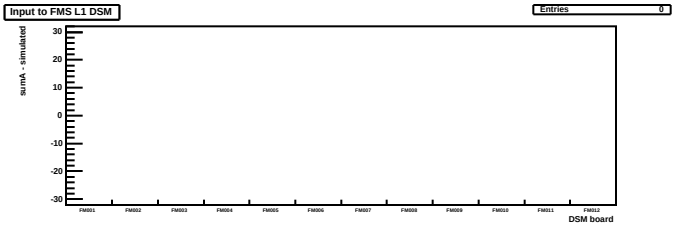

Input to FMS L1 DSM
Entries 414324
sumB
DSM board

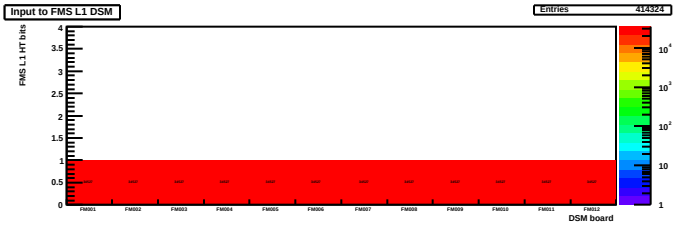

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

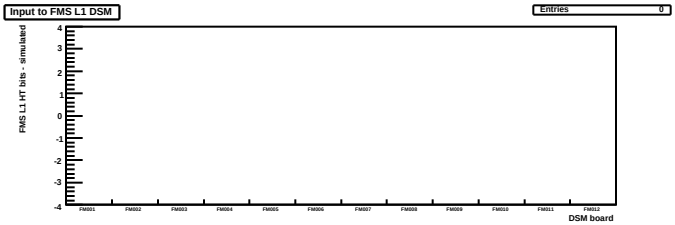

Input to FMS L1 DSM
Entries 414324
sumCD
DSM board

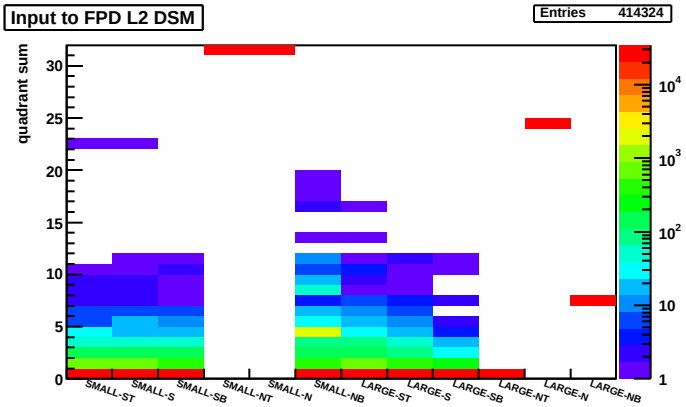

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

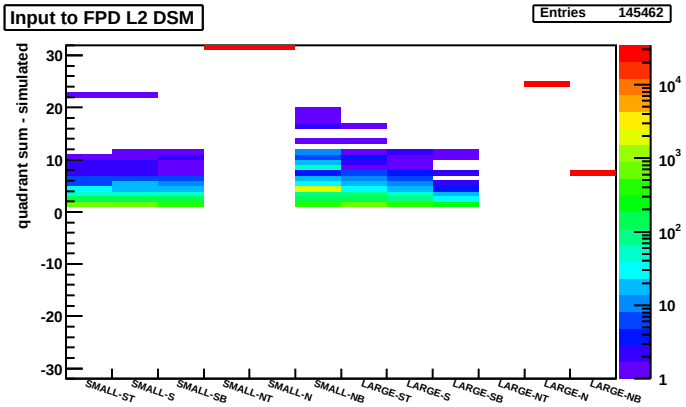

Input to FMS L1 DSM
Entries 414324
sumA
DSM board

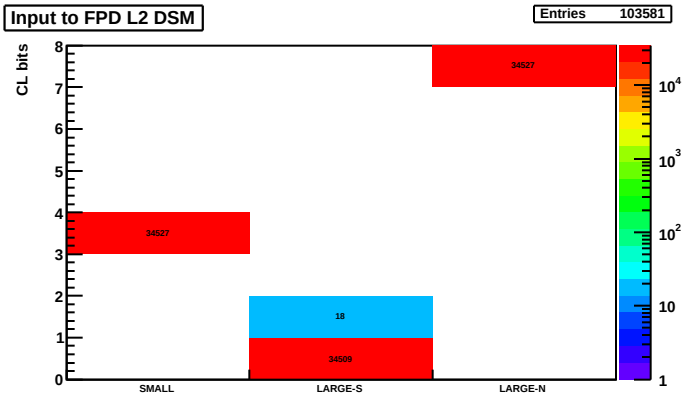

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

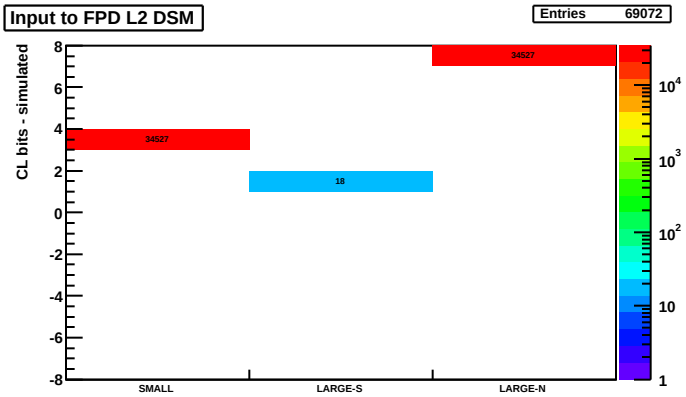

Input to FMS L1 DSM
Entries 414324
FMS L1 HT bits
DSM board

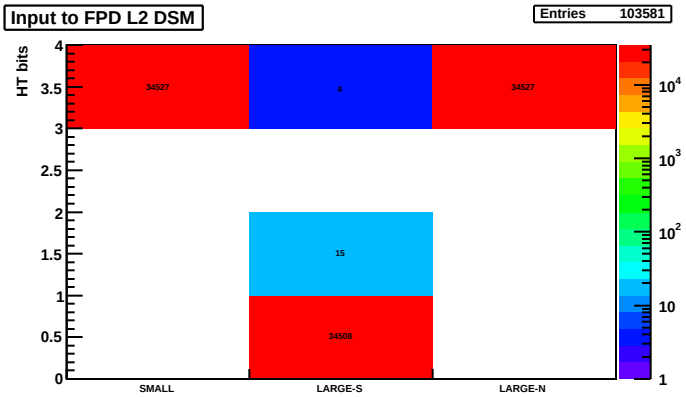

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

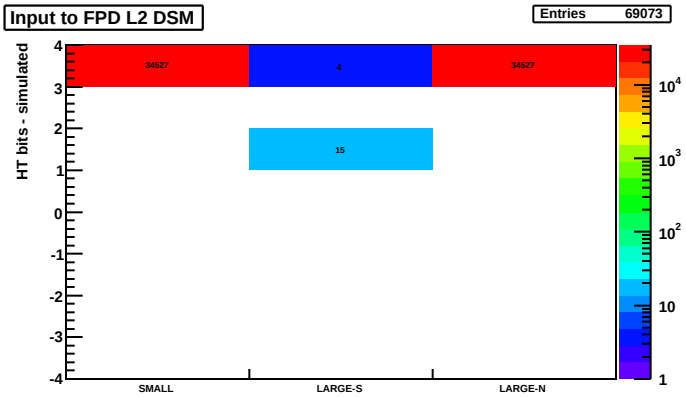

Input to FPD L2 DSM
Entries 414324
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

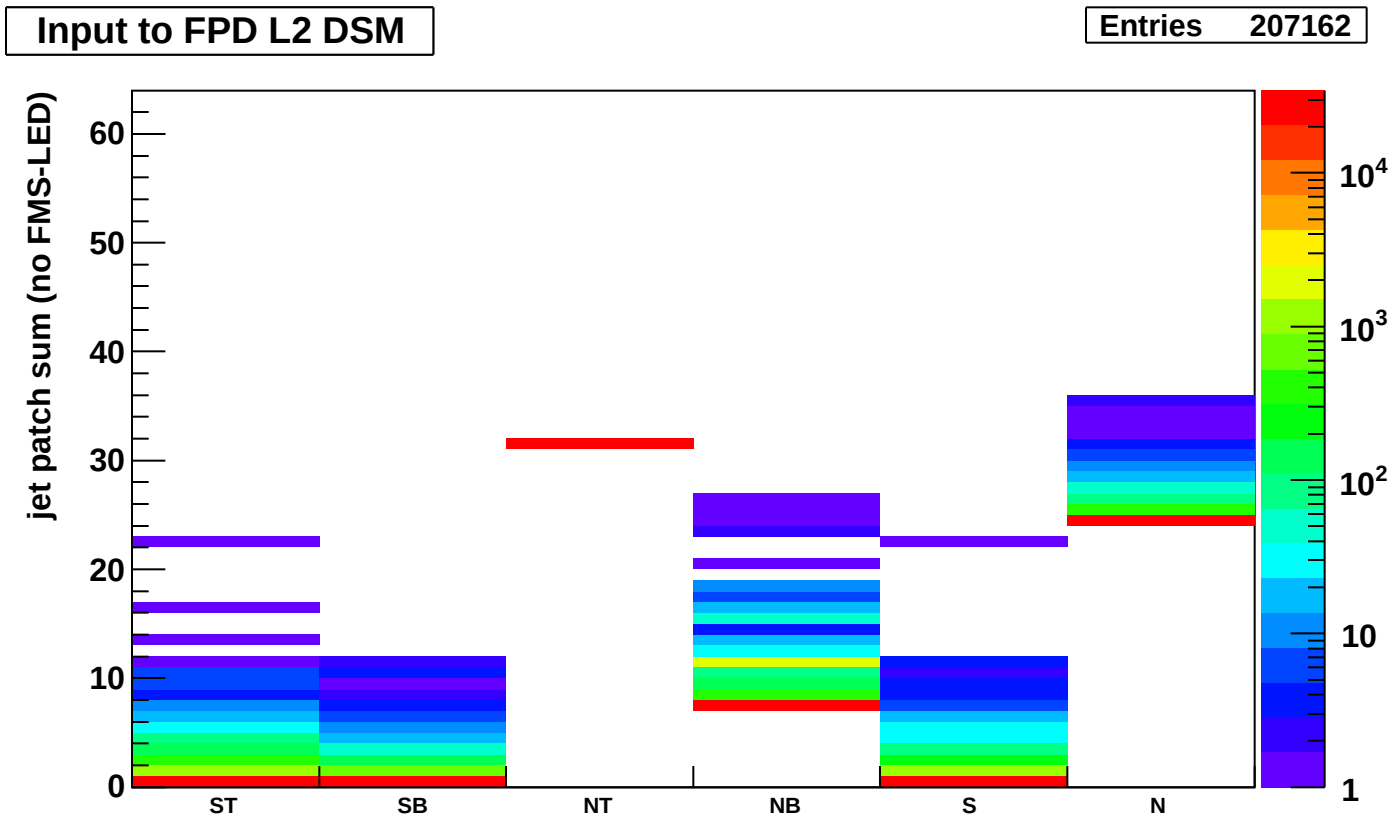

Input to FPD L2 DSM
Entries 145462
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

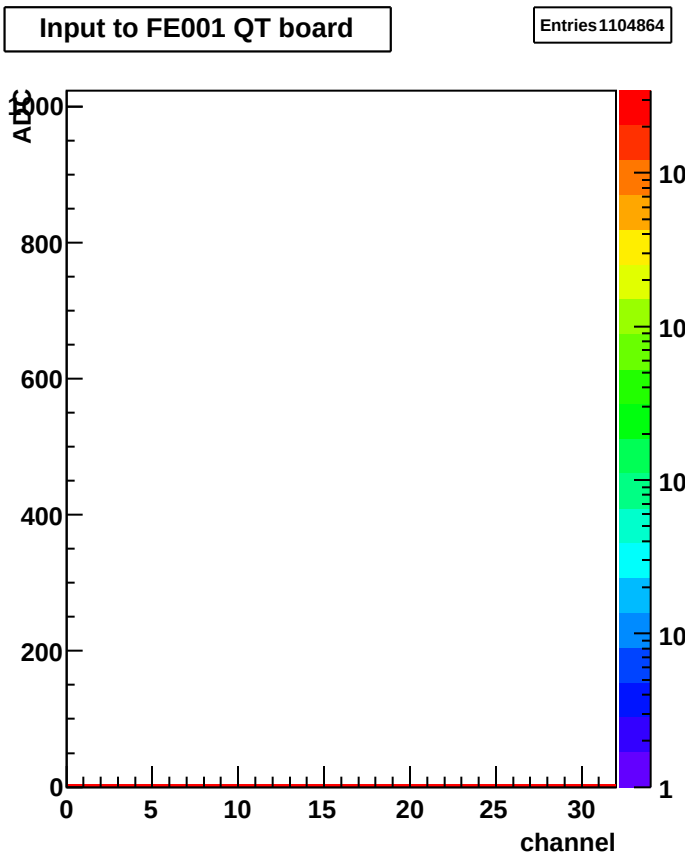

Input to FPD L2 DSM
Entries 103581
CL bits
34527
18
34509
SMALL
LARGE-S
LARGE-N

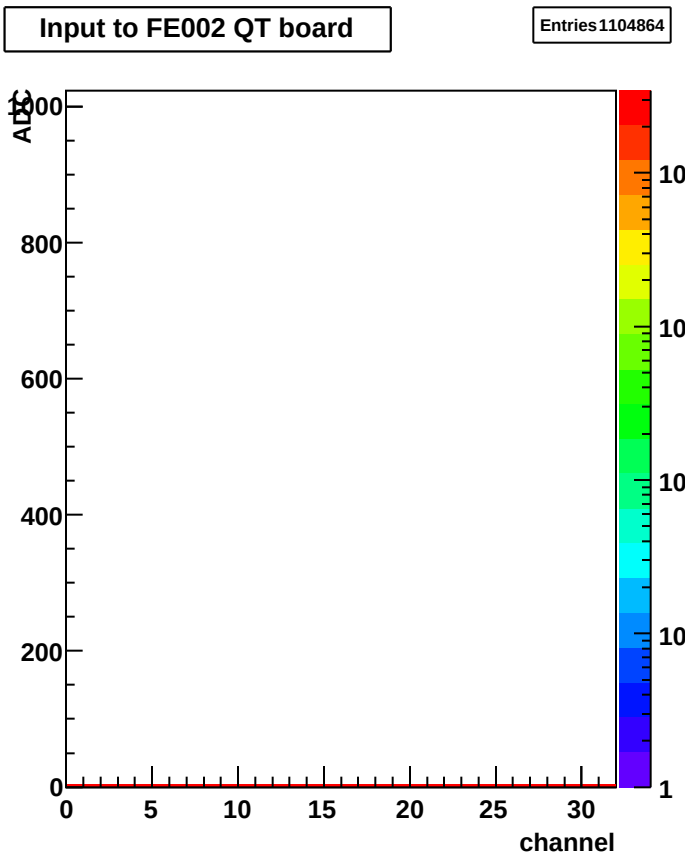

Input to FPD L2 DSM
Entries 69072
CL bits - simulated
34527
18
SMALL
LARGE-S
LARGE-N

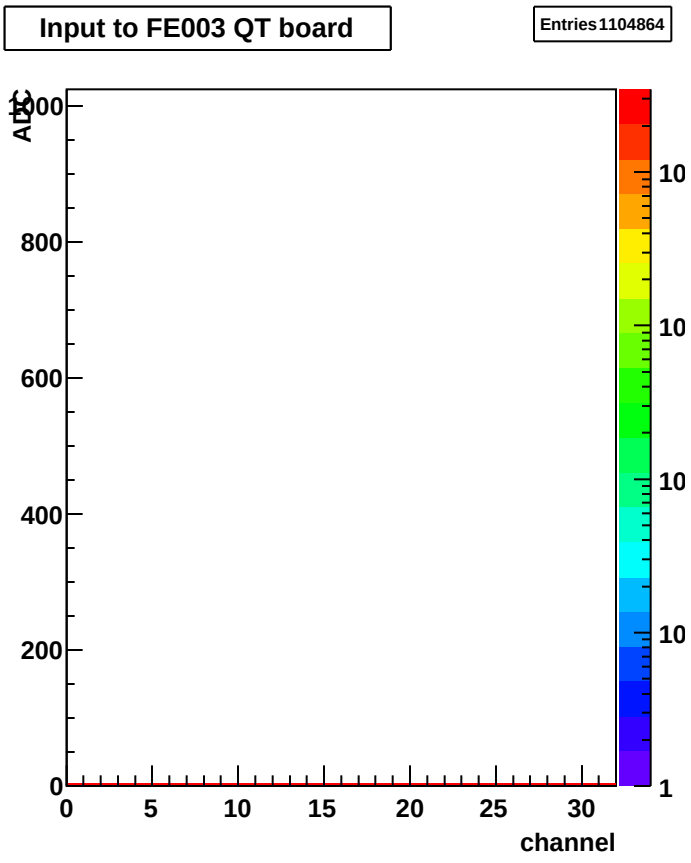

Input to FPD L2 DSM
Entries 103581
HT bits
34527
4
15
34508
SMALL
LARGE-S
LARGE-N

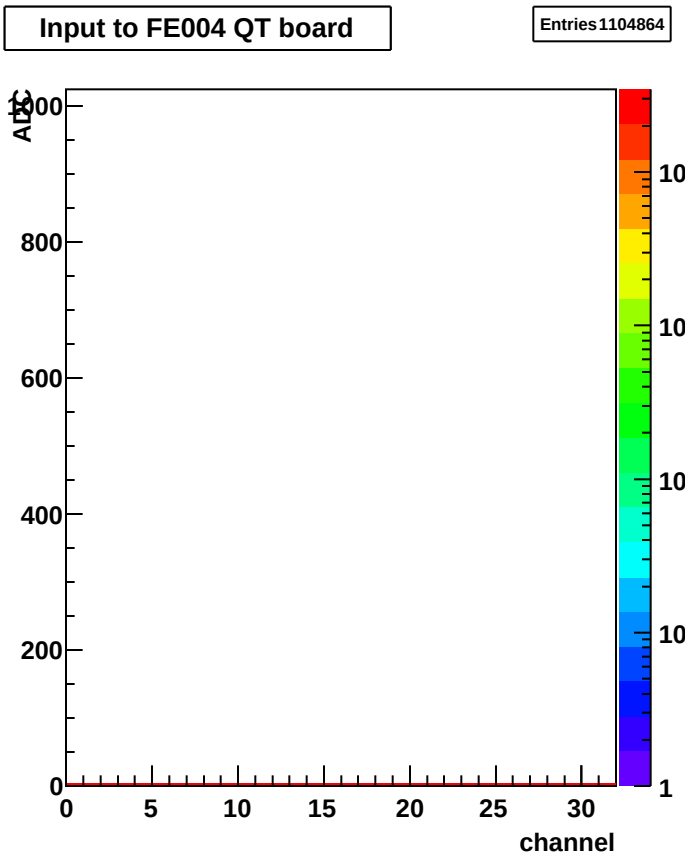

Input to FPD L2 DSM
Entries 69073
HT bits - simulated
34527
4
15
SMALL
LARGE-S
LARGE-N

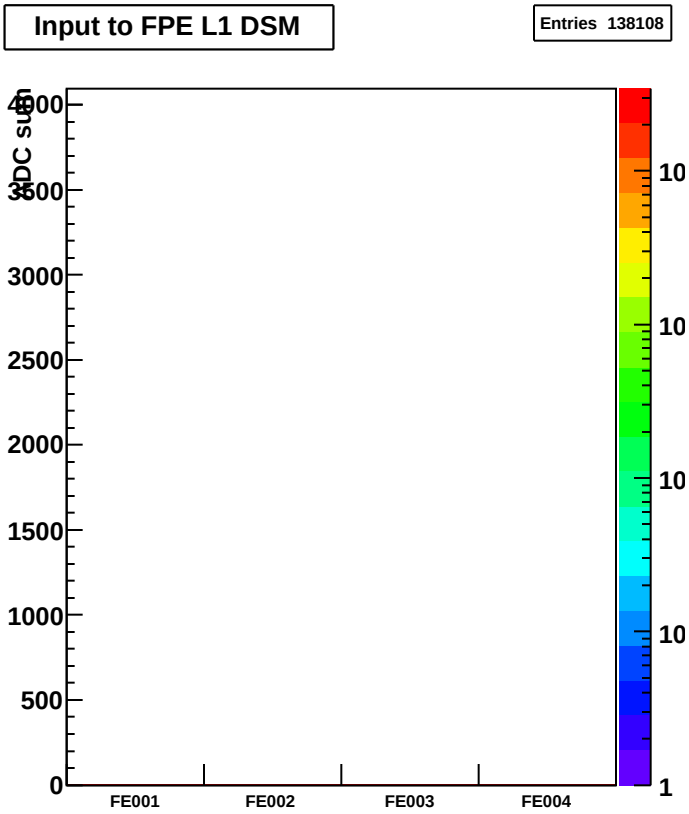

Input to FPD L2 DSM
Entries 207162
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

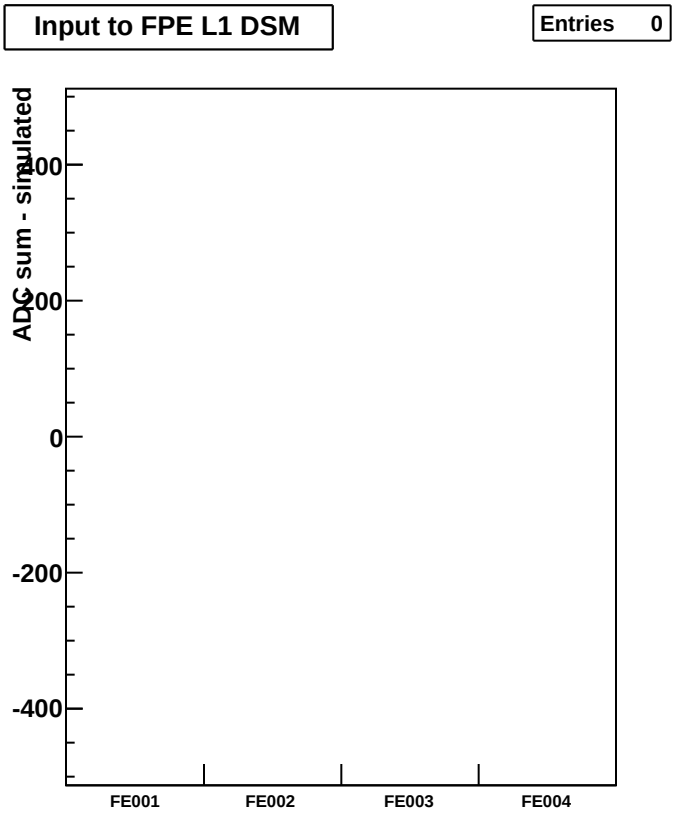

Input to FE001 QT board
Entries 1104864
ADC
channel

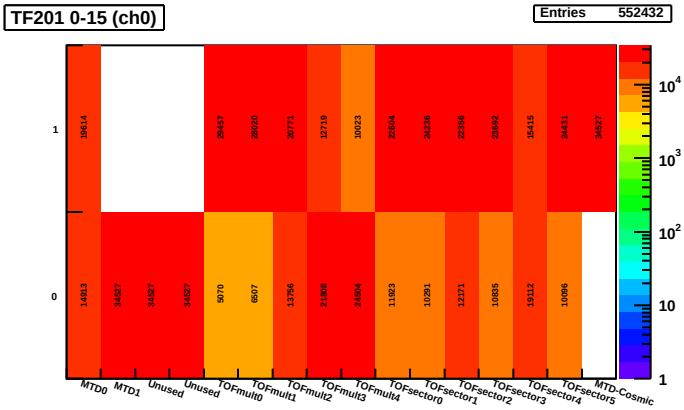

Input to FE002 QT board
Entries 1104864
ADC
channel

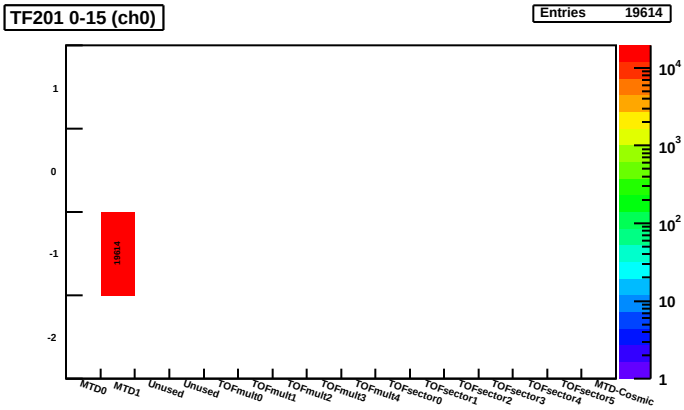

Input to FE003 QT board
Entries 1104864
ADC
channel

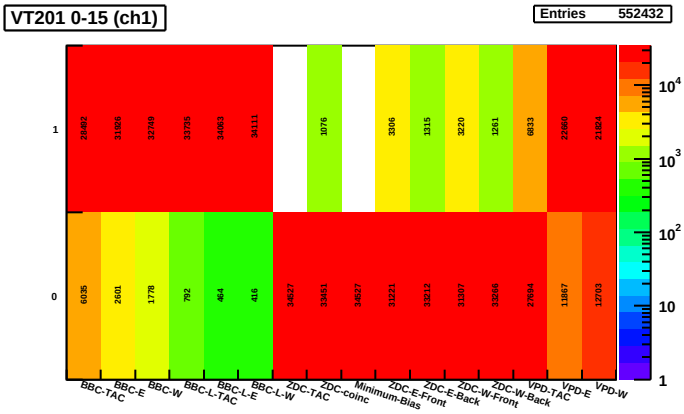

Input to FE004 QT board
Entries 1104864
ADC
channel

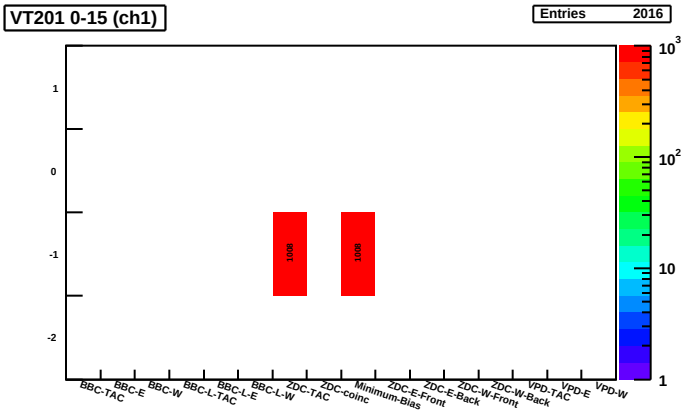

Input to FPE L1 DSM
Entries 138108
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

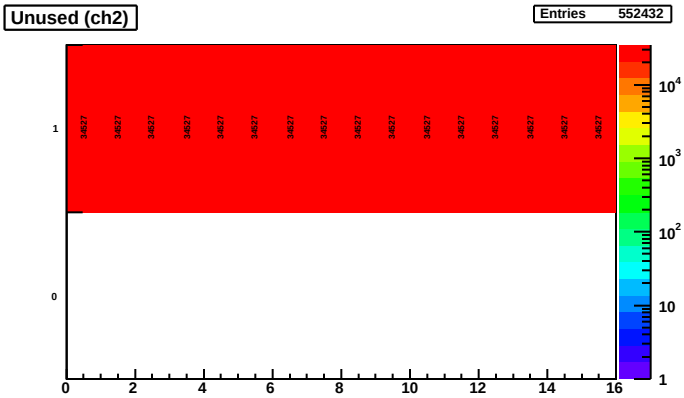

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004


TF201 0-15 (ch0)
Entries 552432
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 19614
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 552432
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 2016
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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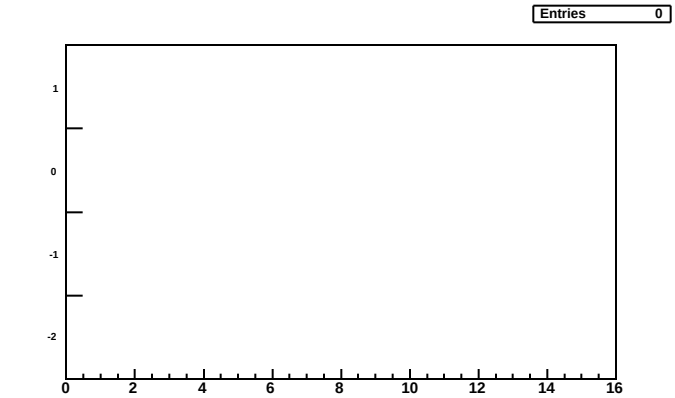
Entries 552432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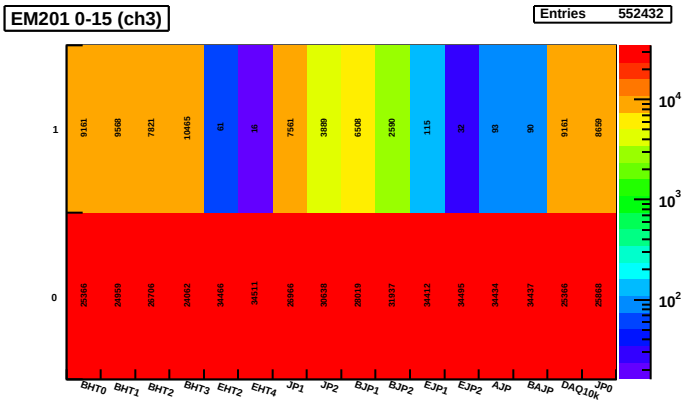
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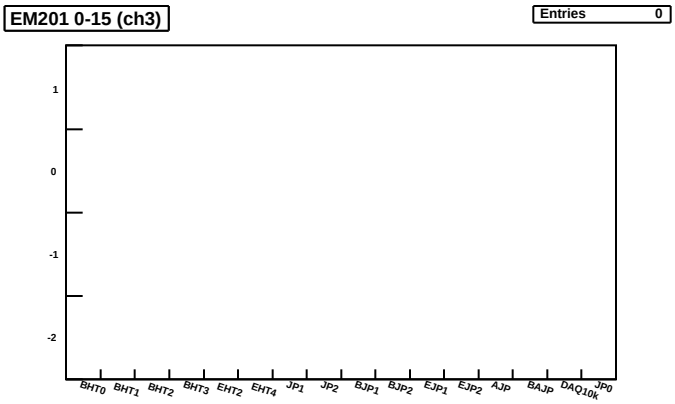
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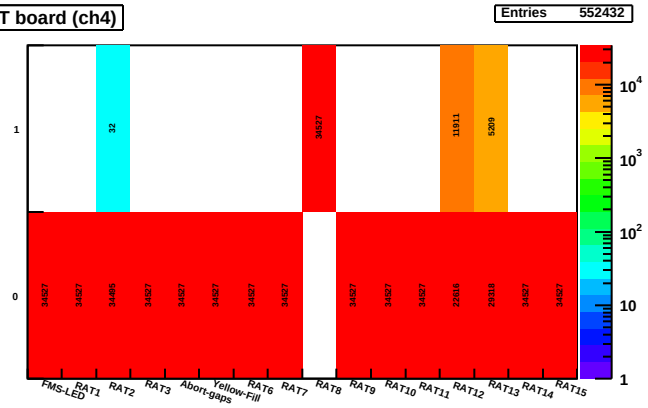
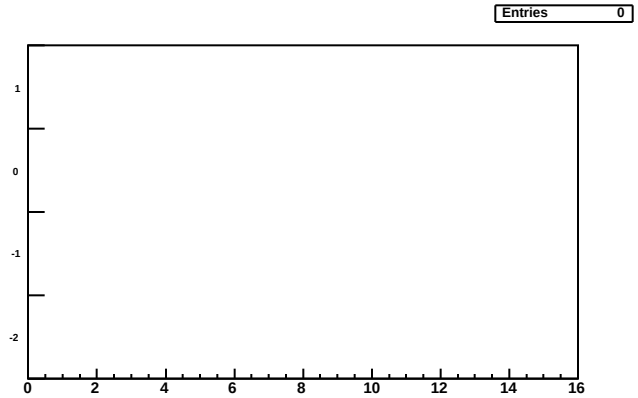
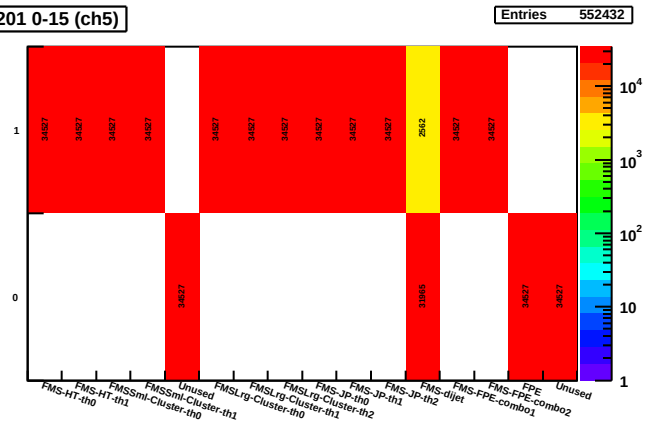
RAT board (ch4)





FP201 0-15 (ch5)



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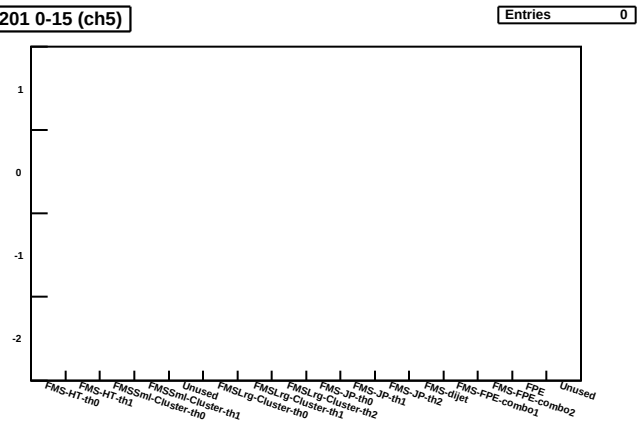
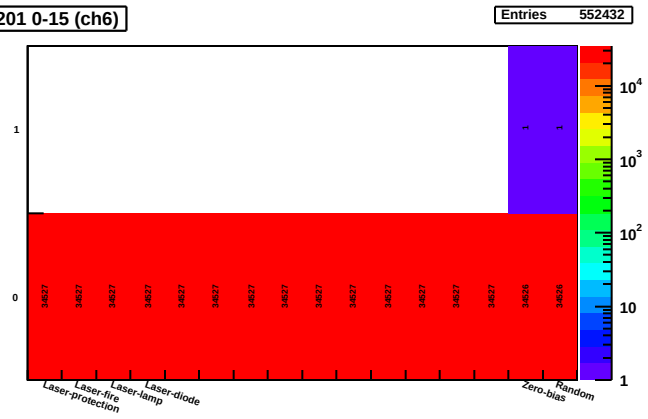
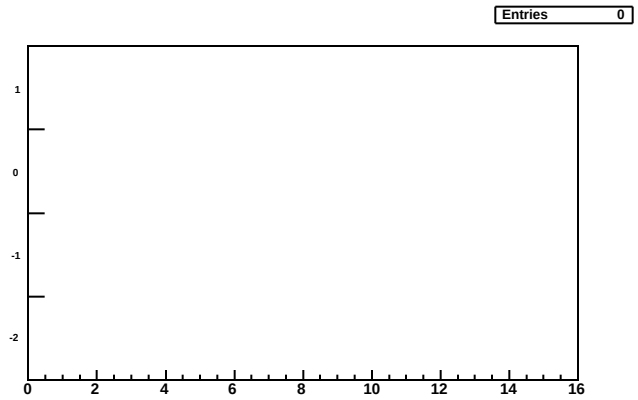
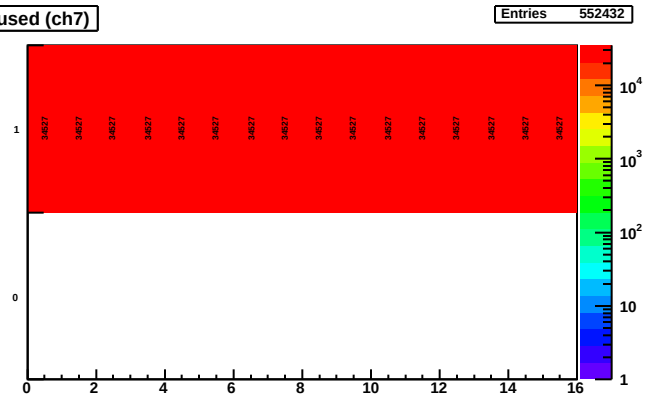
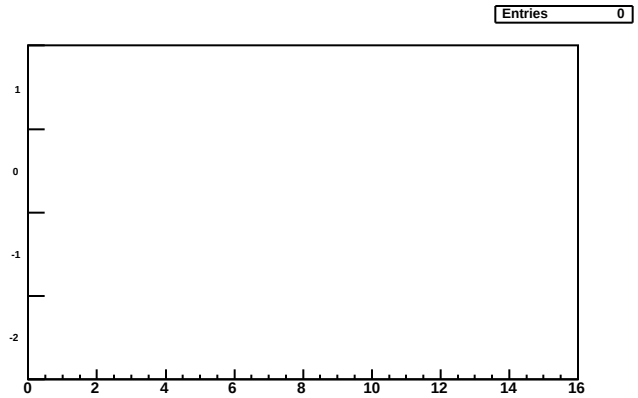


ST201 0-15 (ch6)





Unused (ch7)