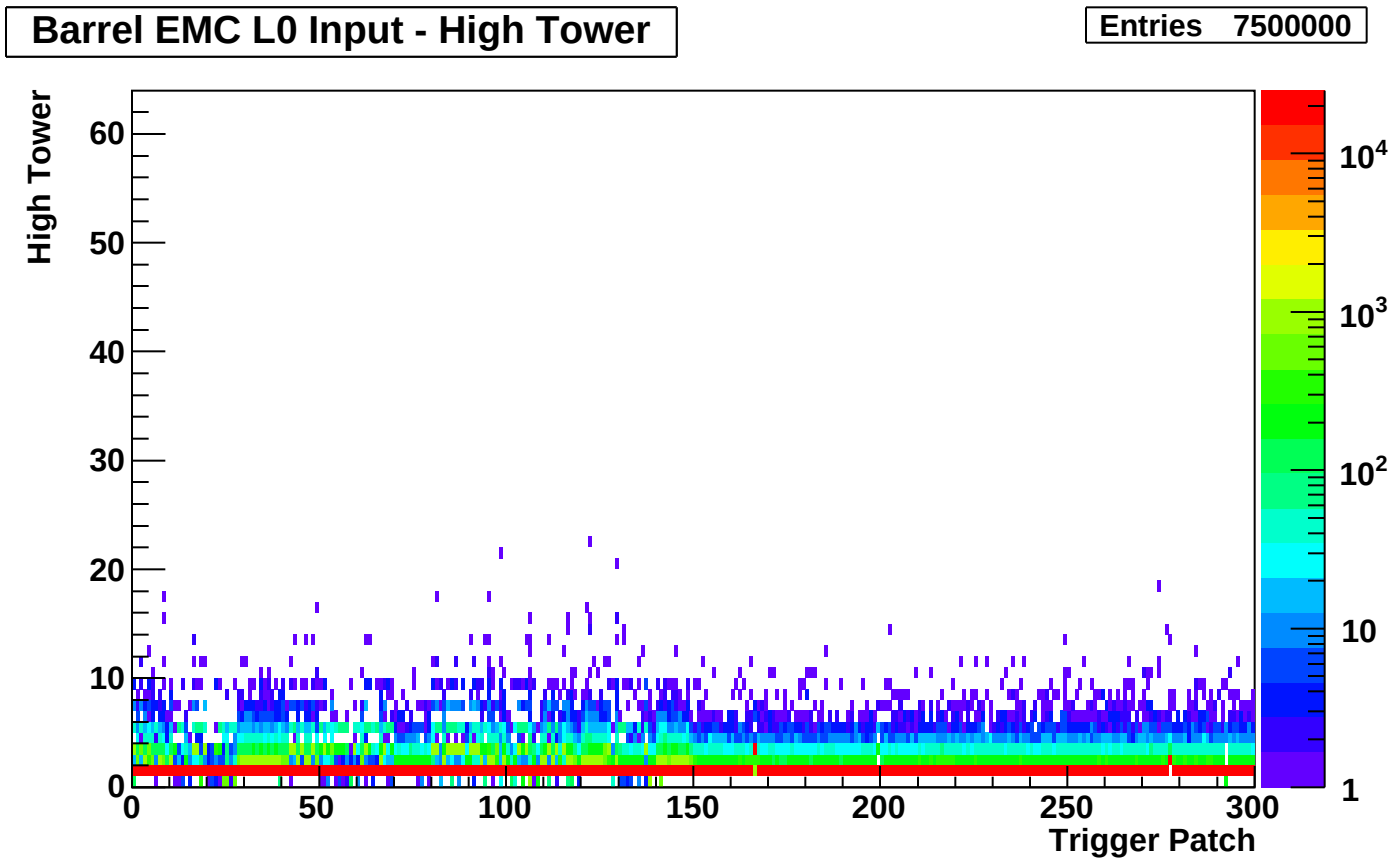
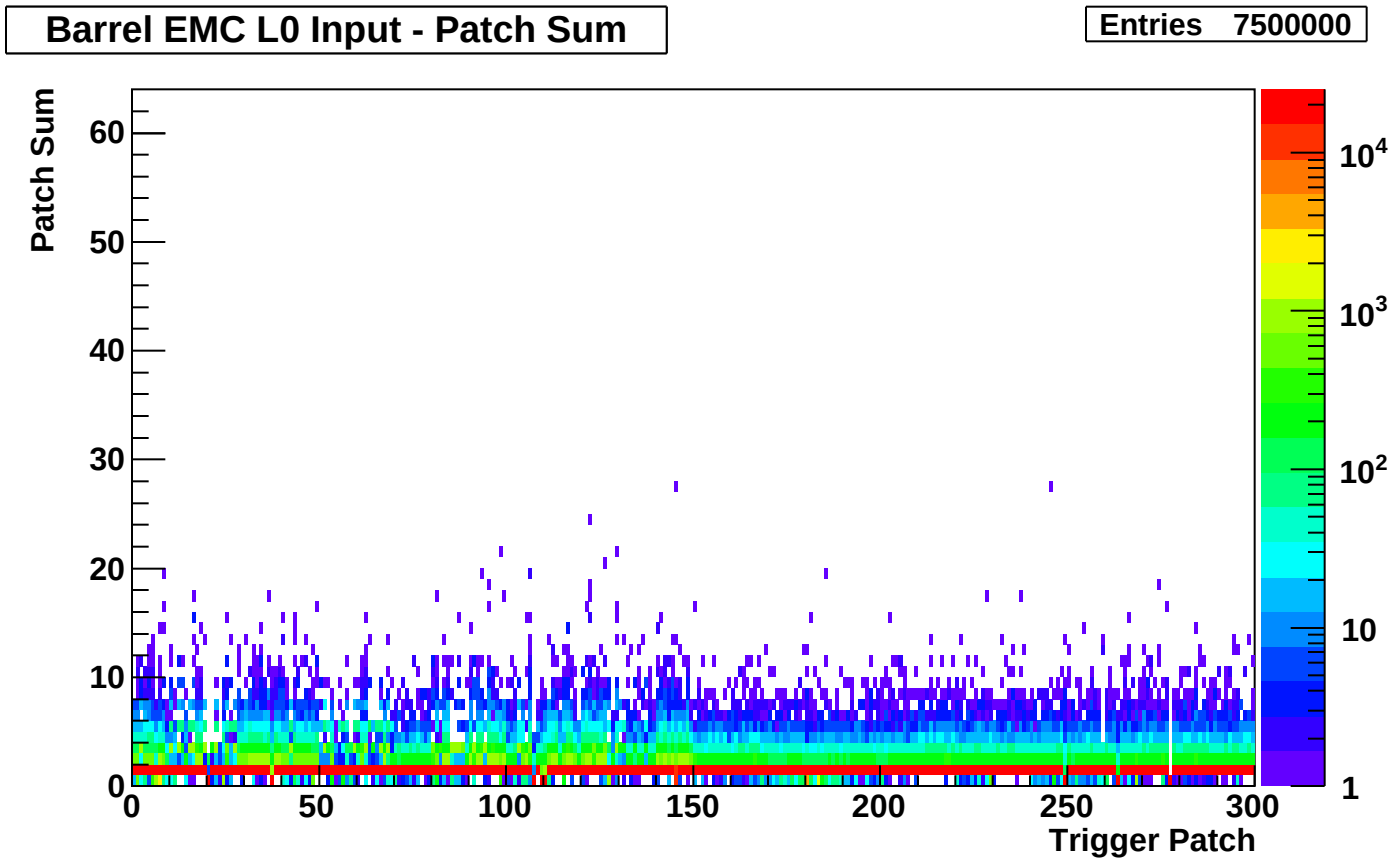
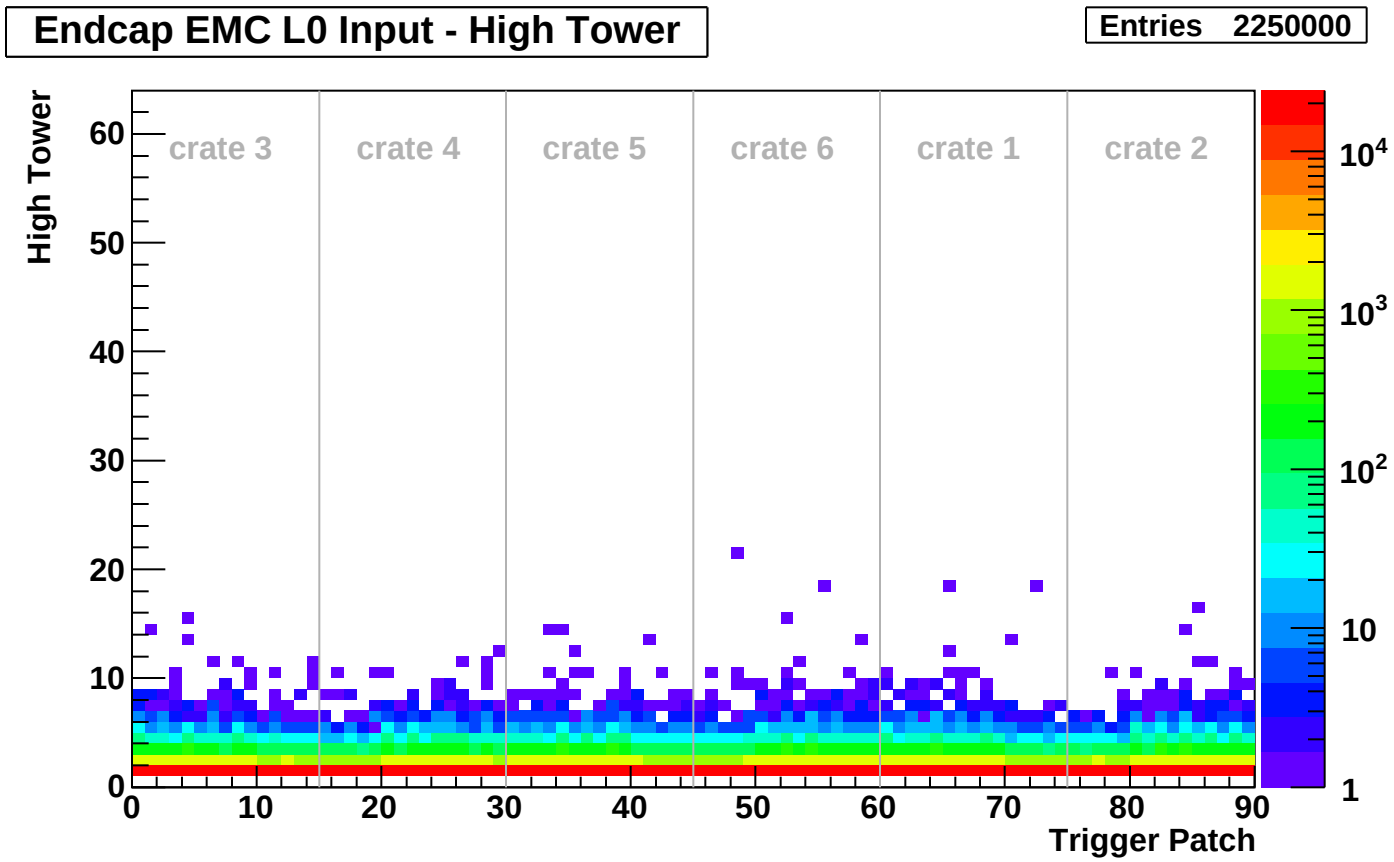
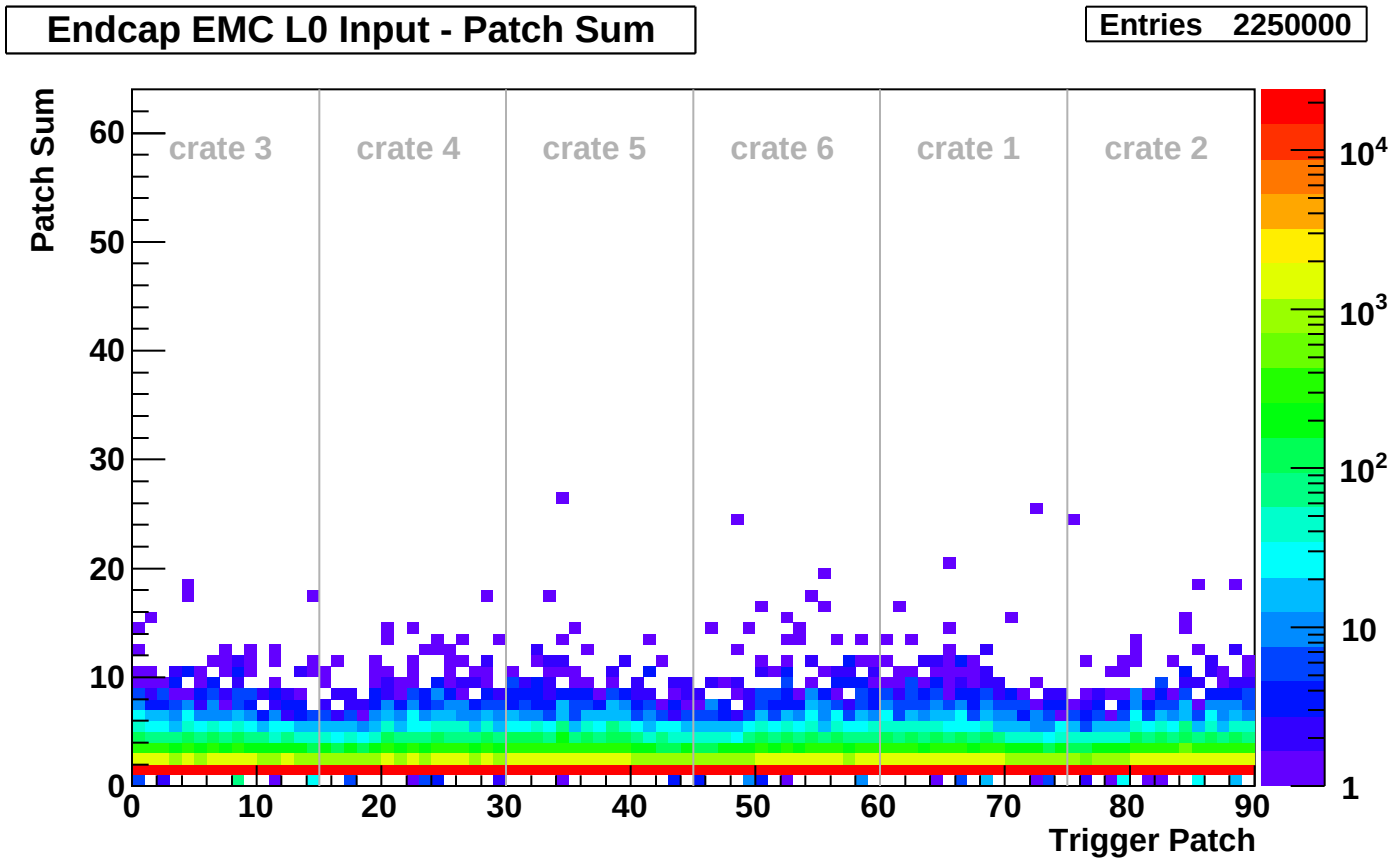
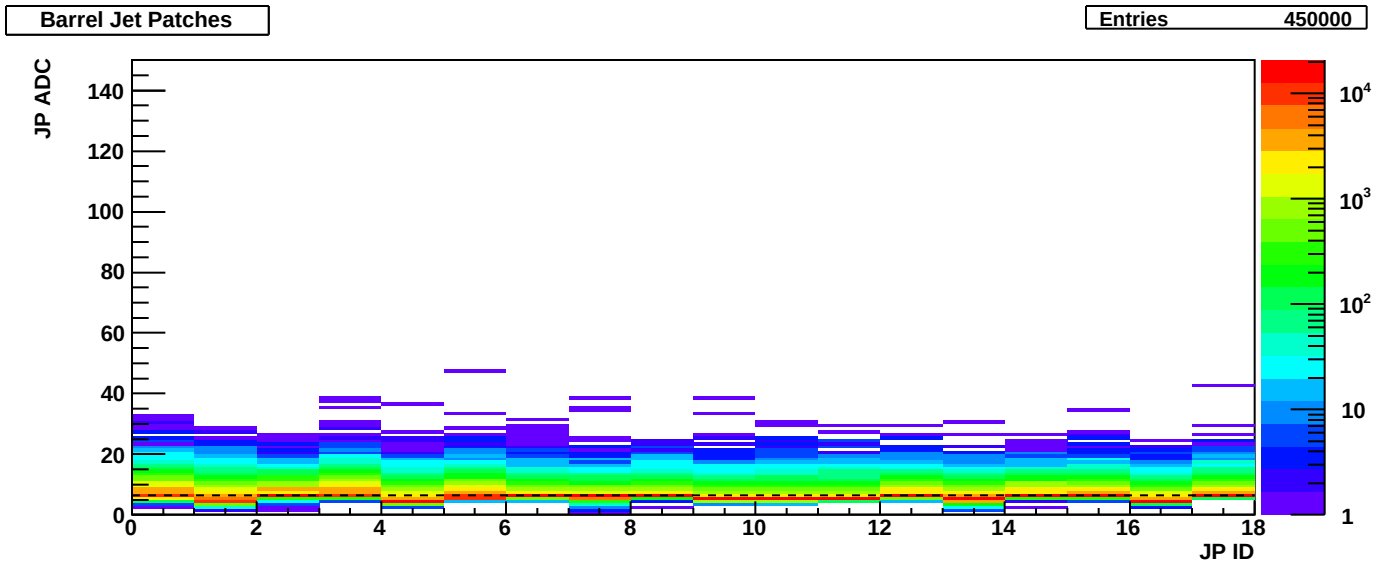
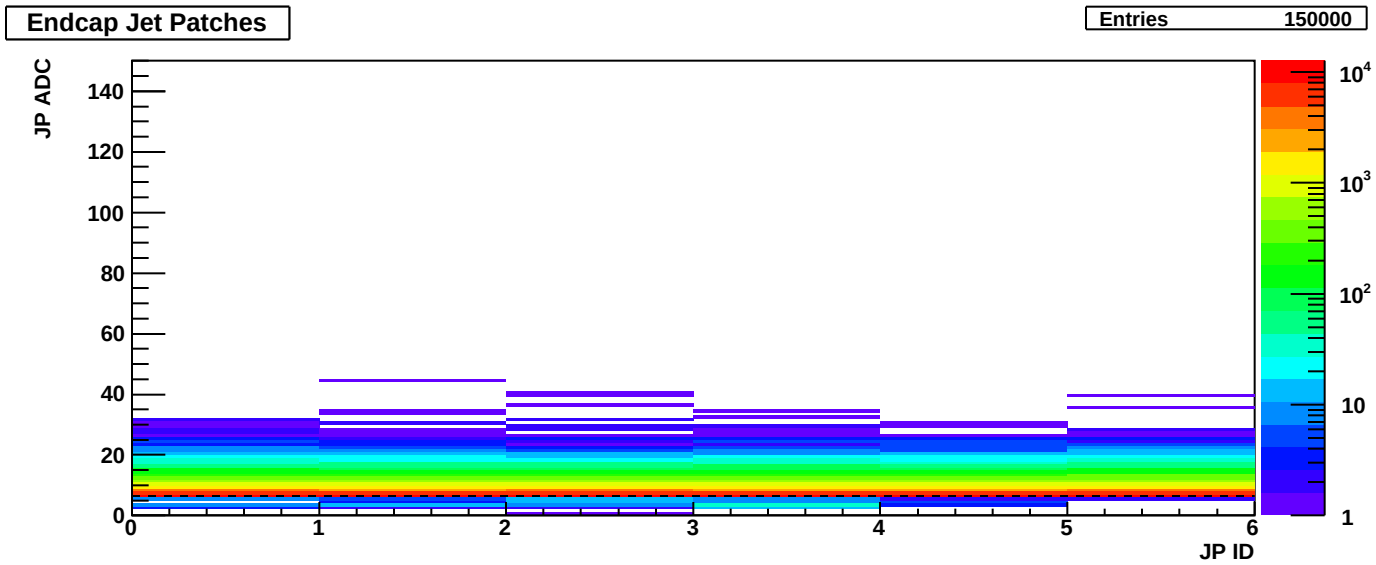

Barrel EMC L0 Input - High Tower
Entries 7500000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

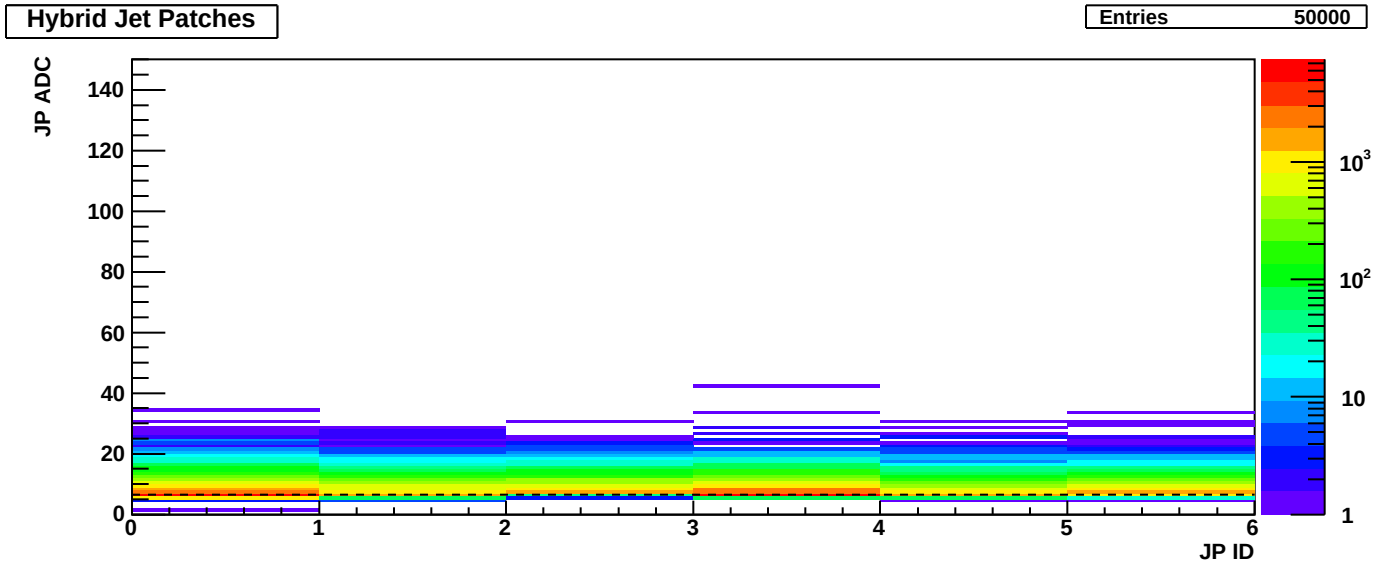

Barrel EMC L0 Input - Patch Sum
Entries 7500000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

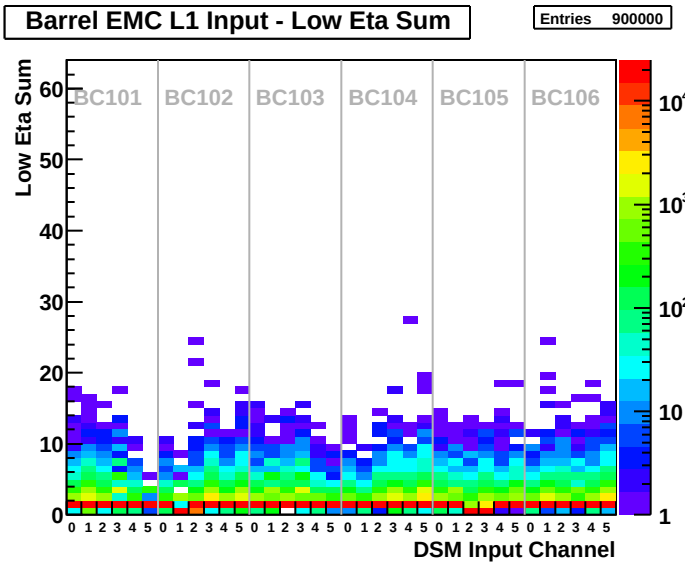

Endcap EMC L0 Input - High Tower
Entries 2250000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

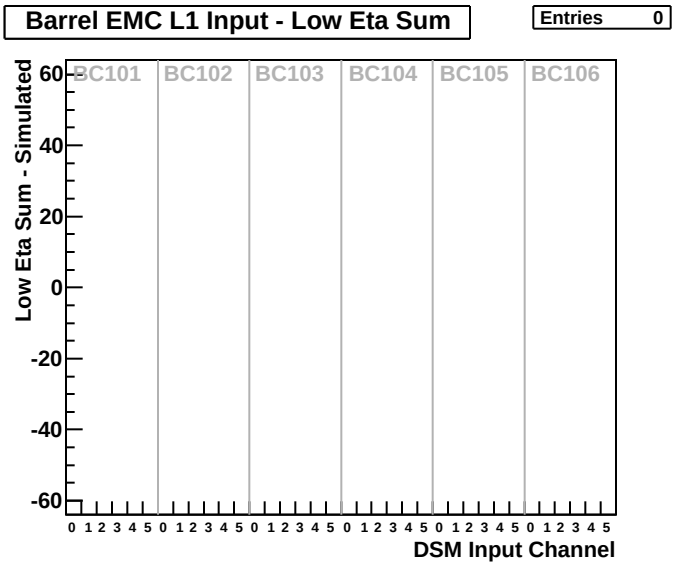

Endcap EMC L0 Input - Patch Sum
Entries 2250000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

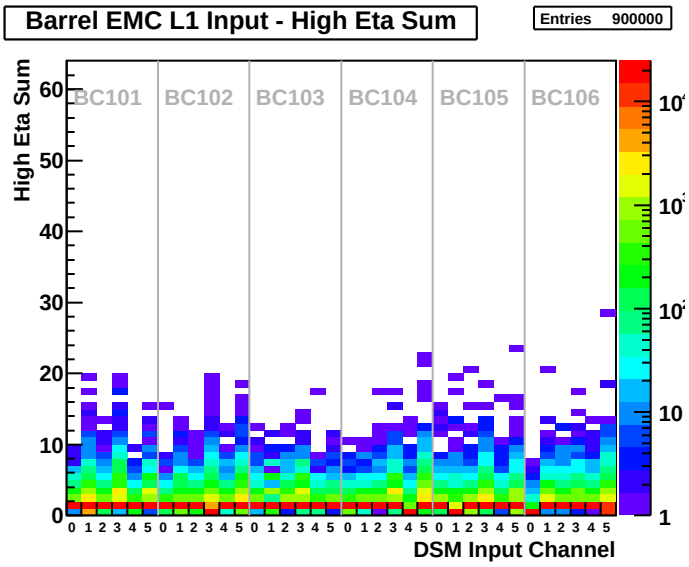

Barrel Jet Patches
Entries 450000
JP ADC
JP ID

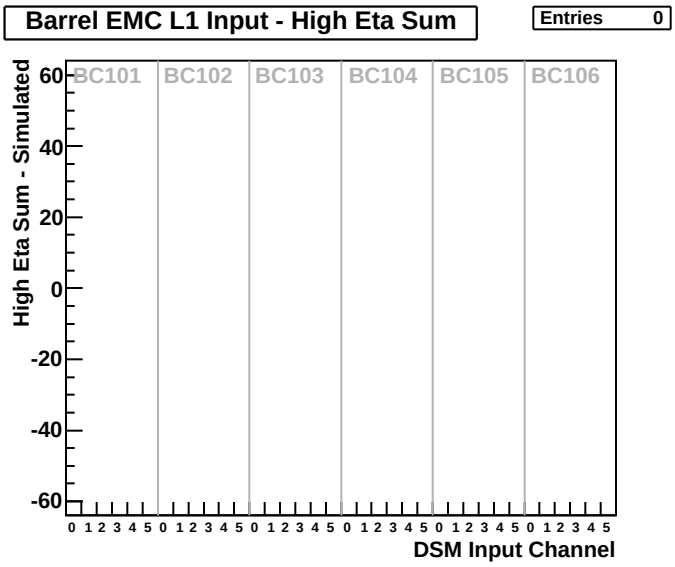

Endcap Jet Patches
Entries 150000
JP ADC
JP ID

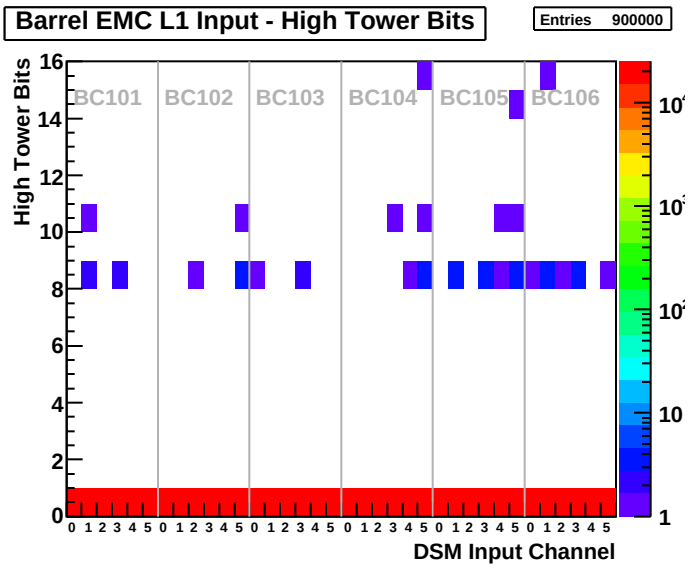

Hybrid Jet Patches
Entries 50000
JP ADC
JP ID

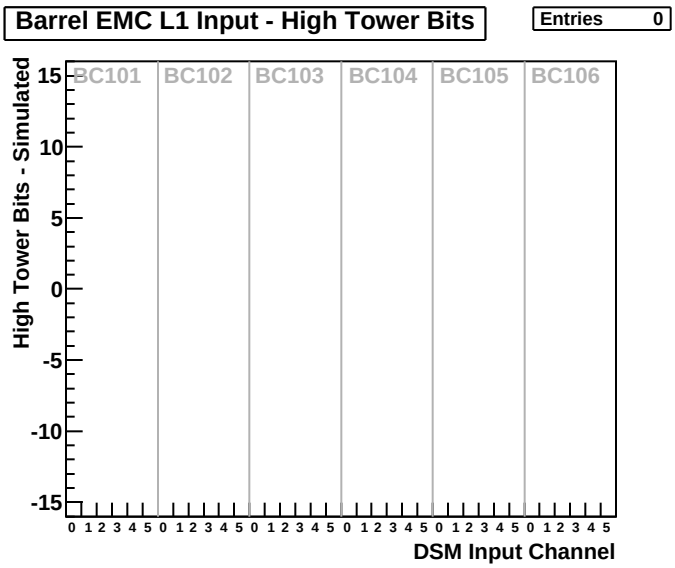

Barrel EMC L1 Input - Low Eta Sum
Entries 900000
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

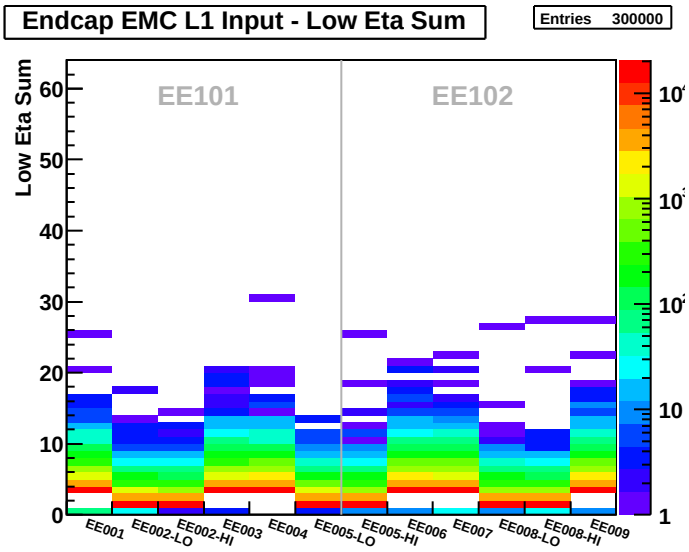

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

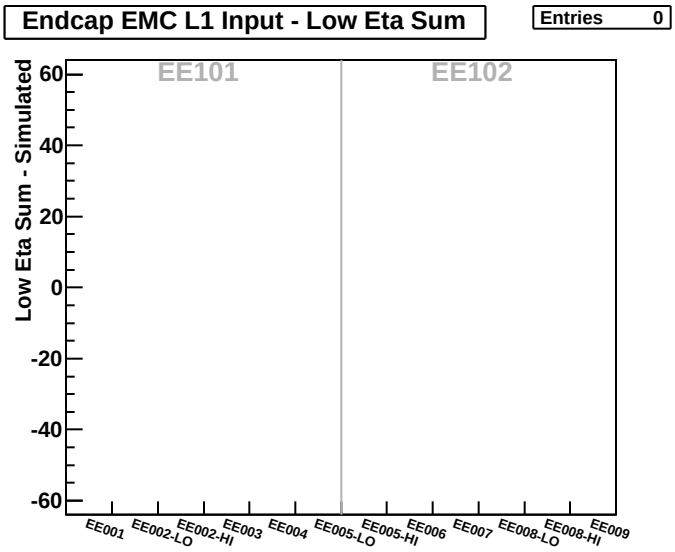

Barrel EMC L1 Input - High Eta Sum
Entries 900000
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

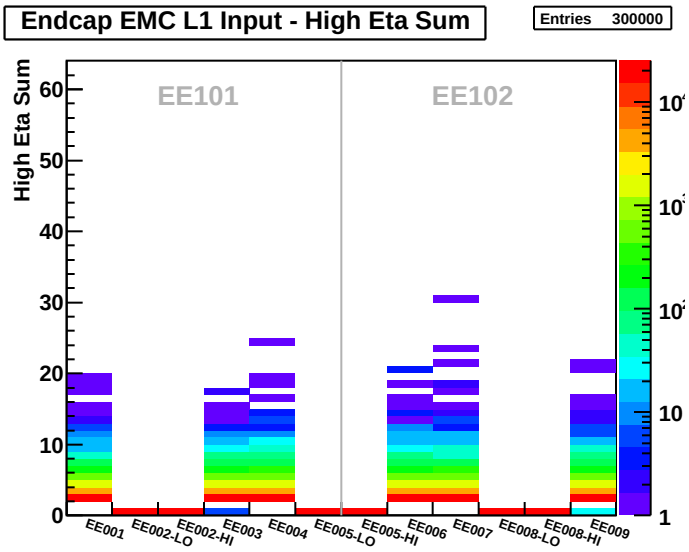

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

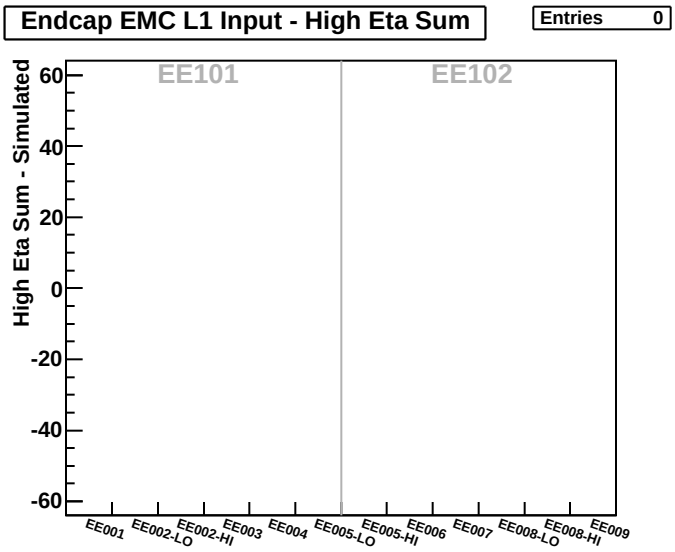

Barrel EMC L1 Input - High Tower Bits
Entries 900000
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

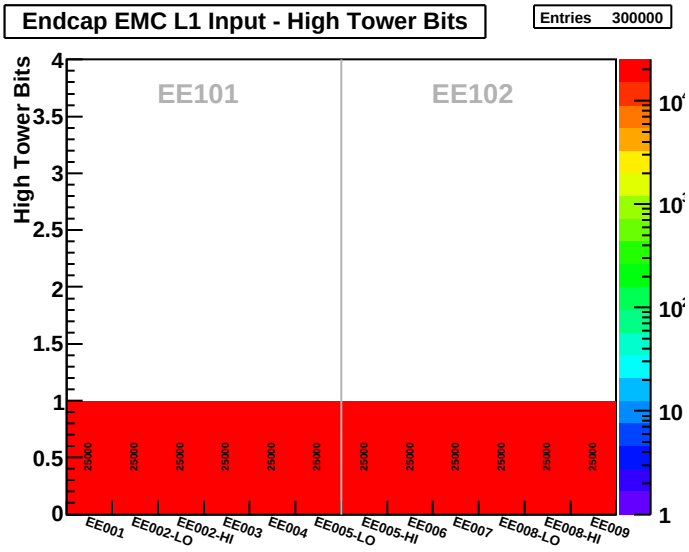

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

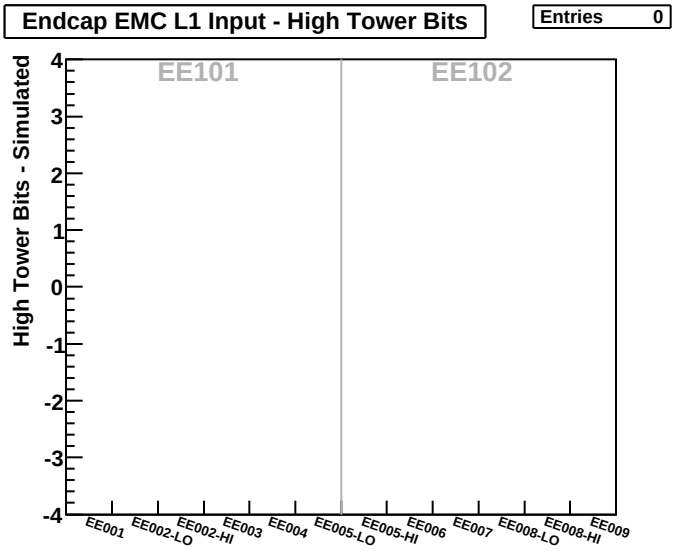

Endcap EMC L1 Input - Low Eta Sum
Entries 300000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

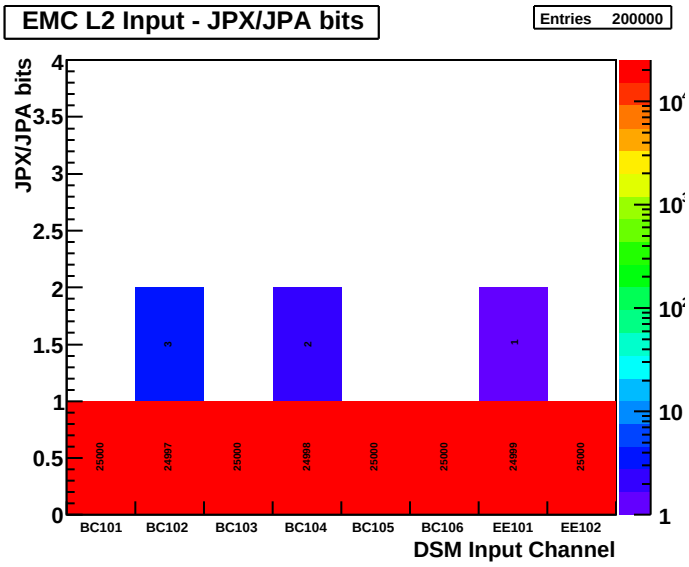

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

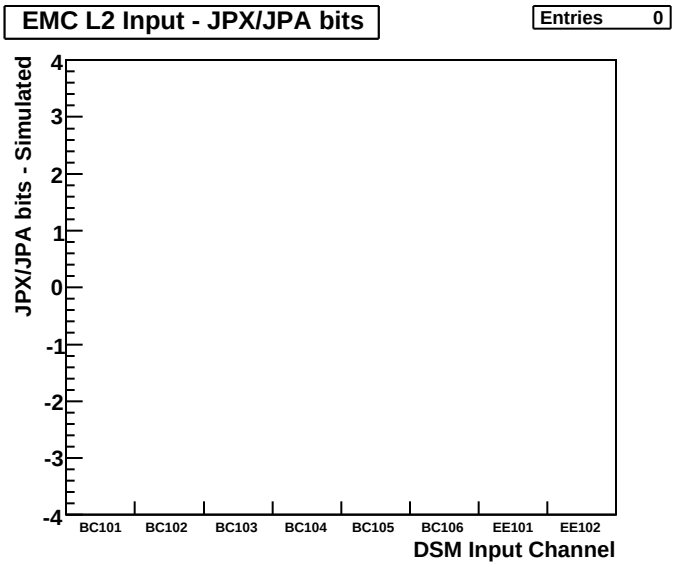

Endcap EMC L1 Input - High Eta Sum
Entries 300000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

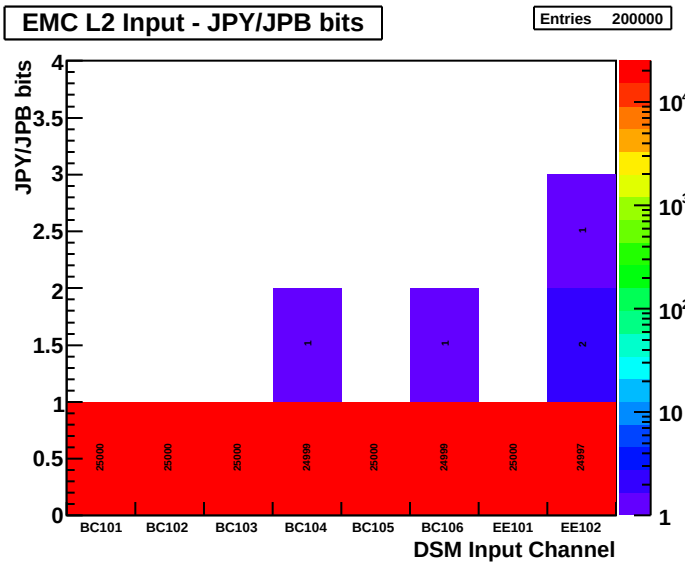

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

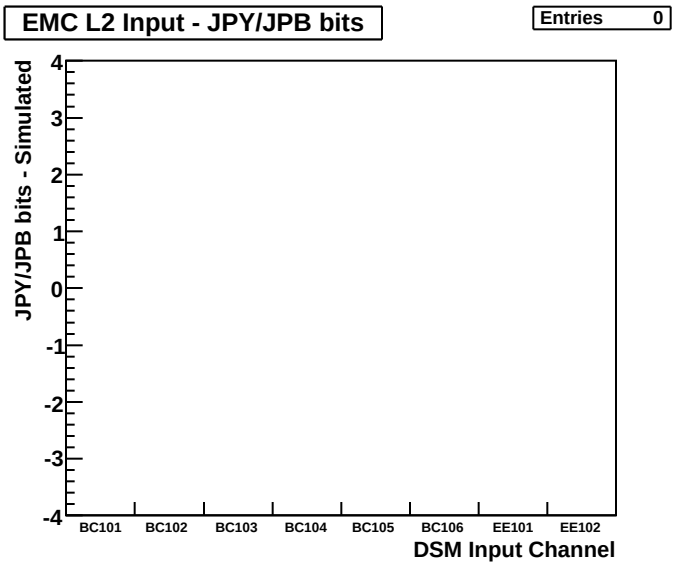

Endcap EMC L1 Input - High Tower Bits
Entries 300000
High Tower Bits
EE101
EE102
25000
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

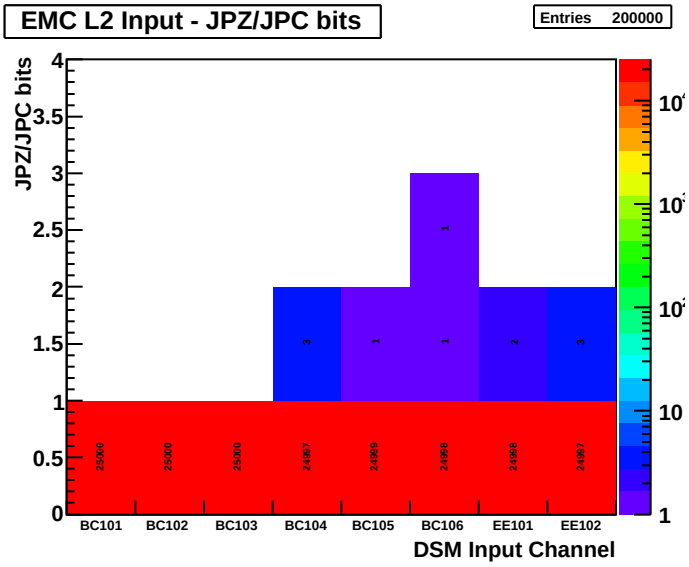

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

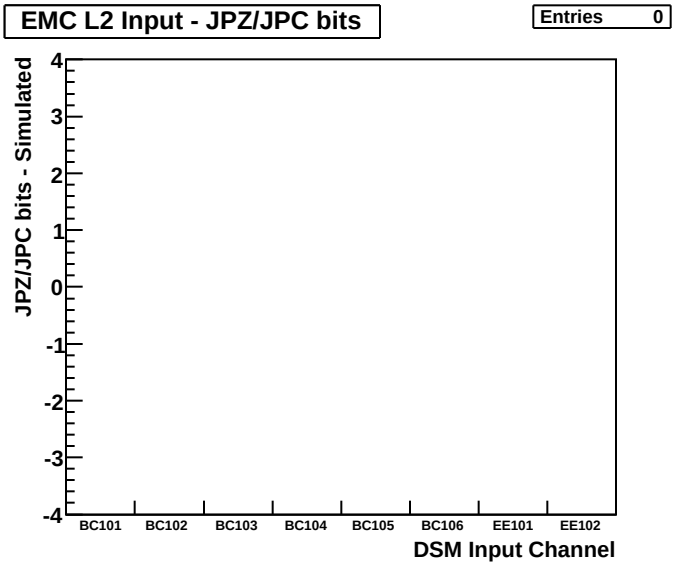

EMC L2 Input - JPX/JPA bits
Entries 200000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
25000 24997 25000 24998 25000 25000 24999 25000
3 2 1

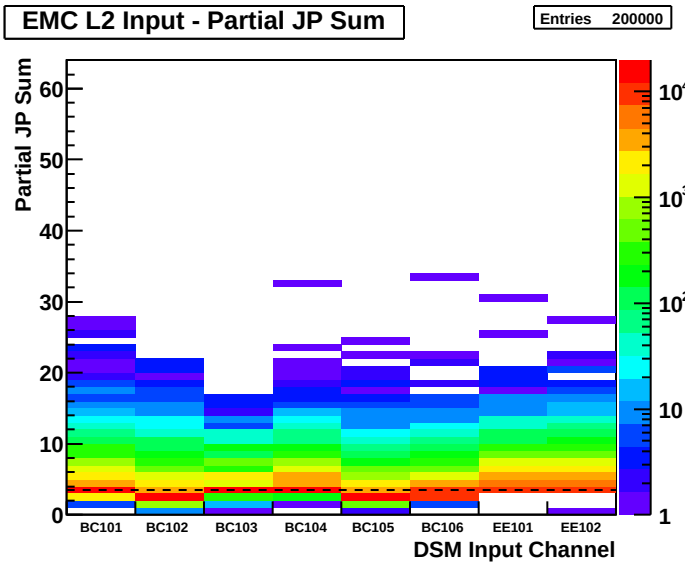

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

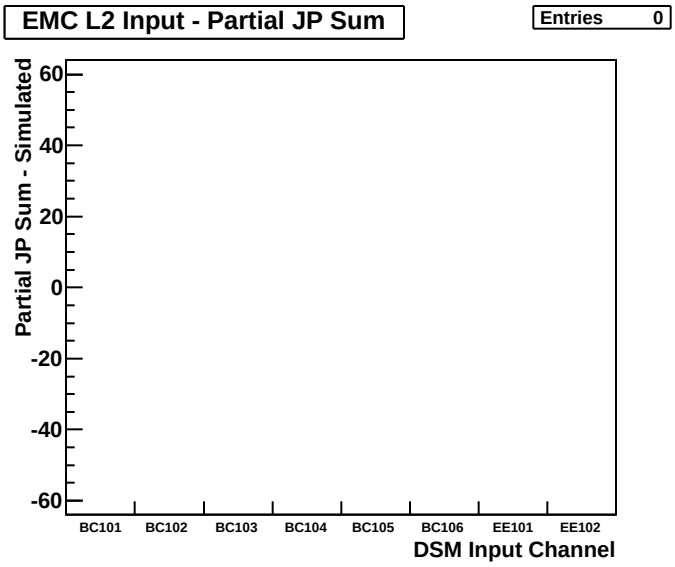

EMC L2 Input - JPY/JPB bits
Entries 200000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
25000 25000 25000 24999 25000 24999 25000 24997
1 1 1 2

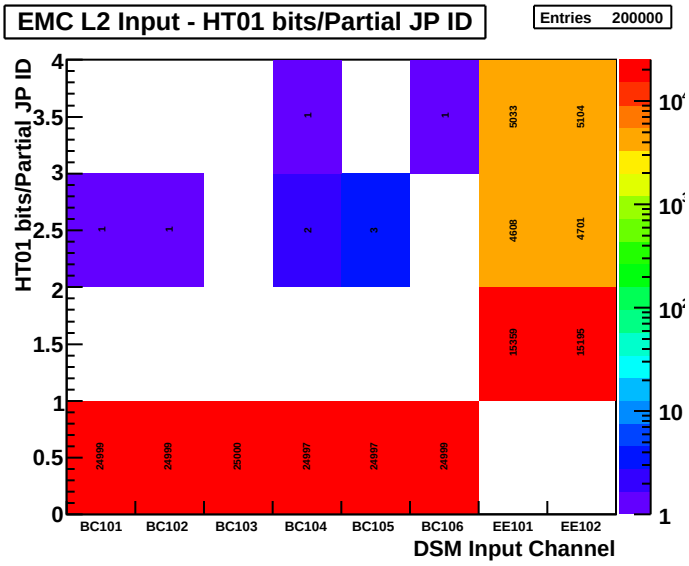

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

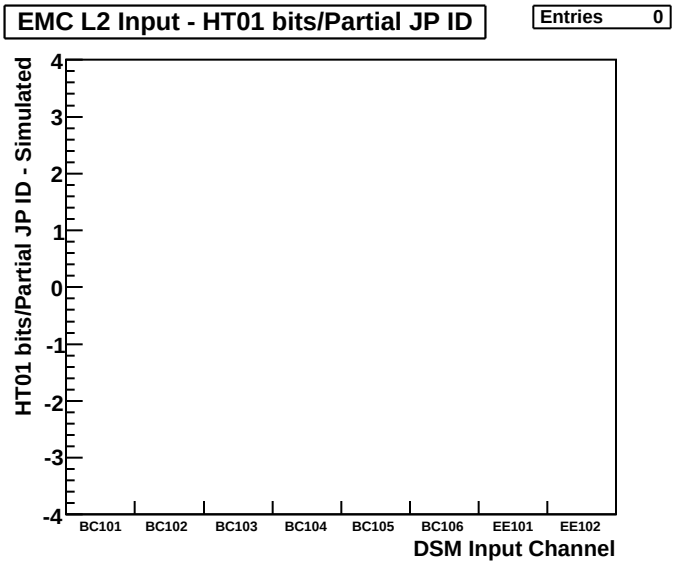

EMC L2 Input - JPZ/JPC bits
Entries 200000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
25000 25000 25000 24997 24999 24998 24998 24997
3 1 1 1 2 3

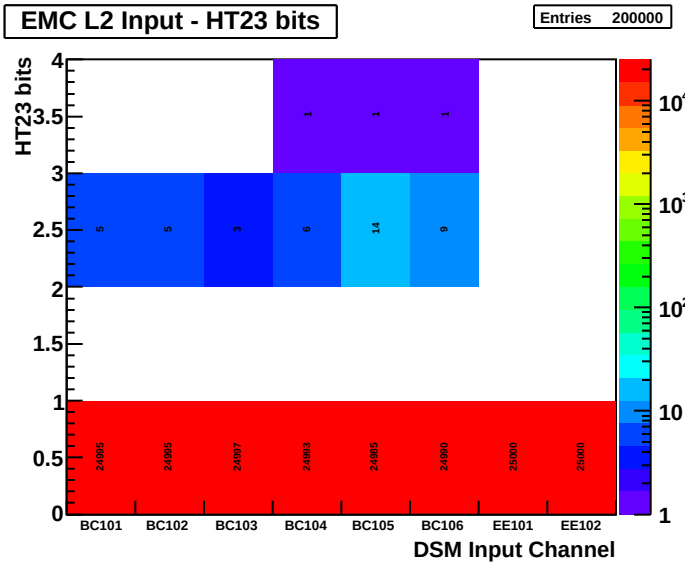

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

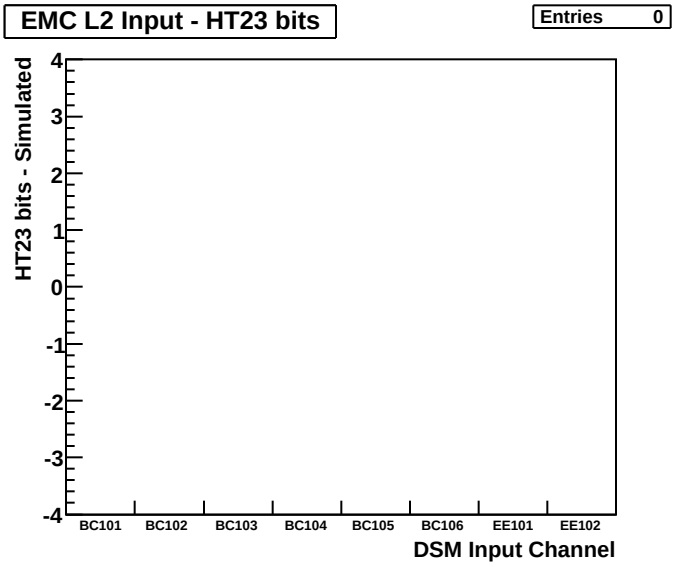

EMC L2 Input - Partial JP Sum
Entries 200000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

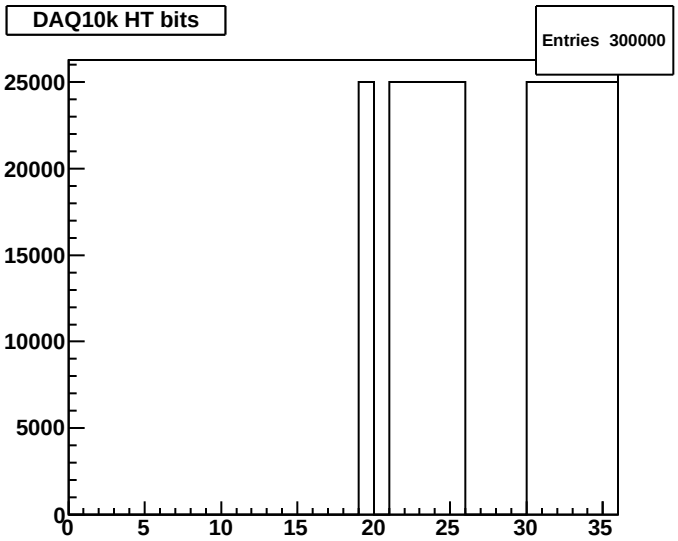

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

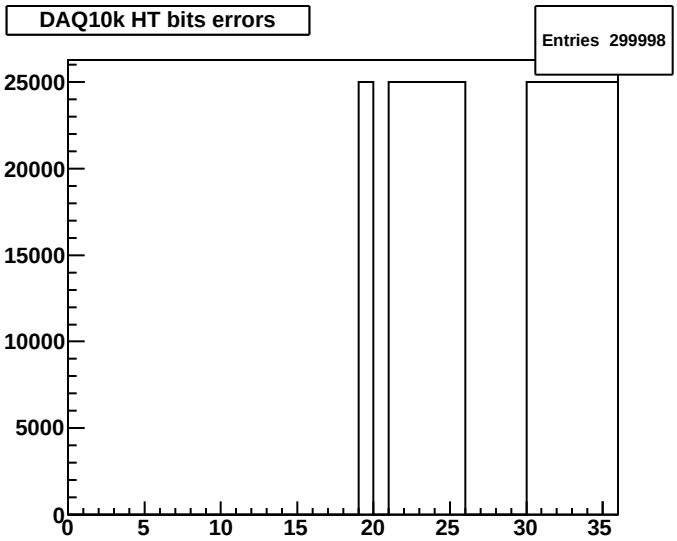

EMC L2 Input - HT01 bits/Partial JP ID
Entries 200000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

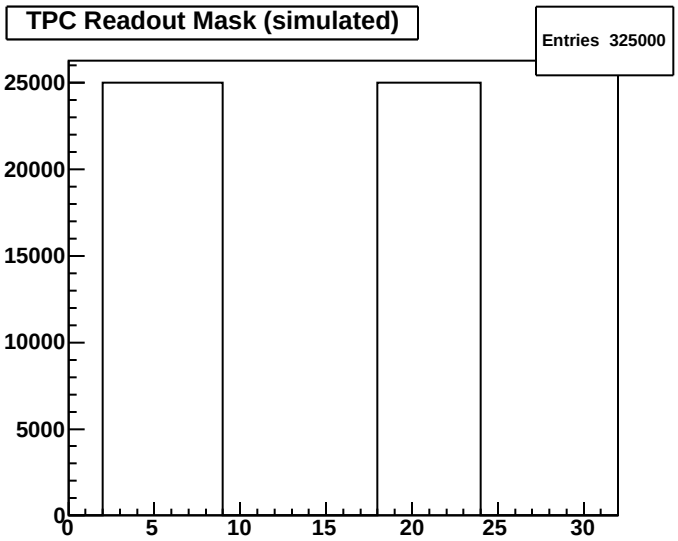

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

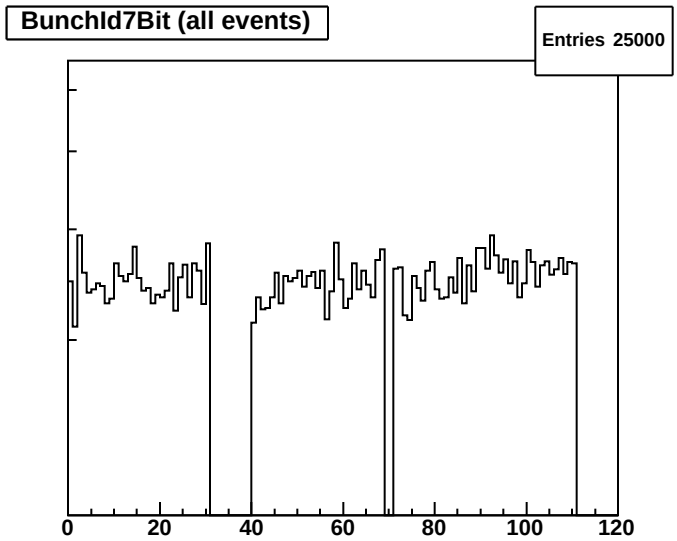

EMC L2 Input - HT23 bits
Entries 200000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

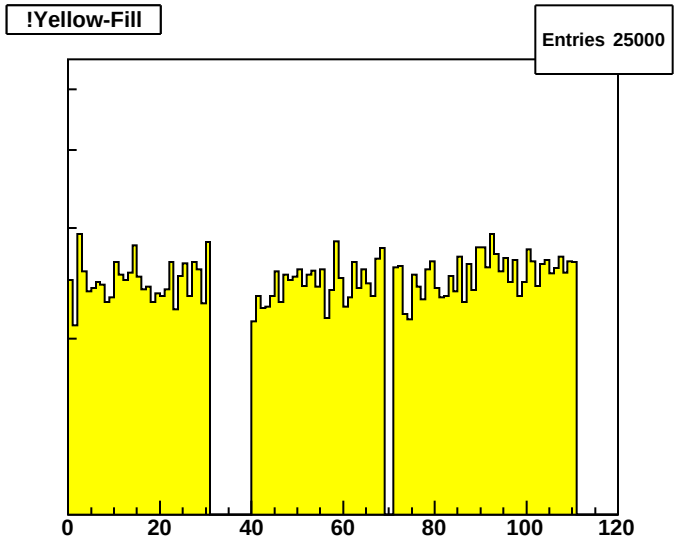

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

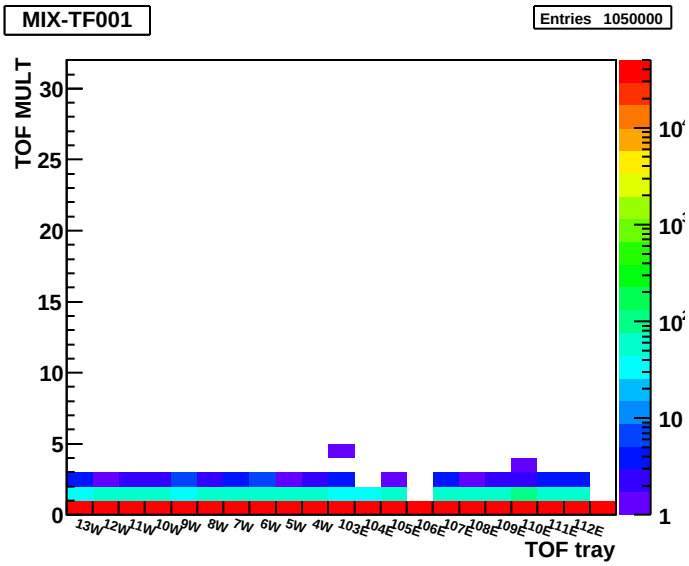

DAQ10k HT bits
Entries 300000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

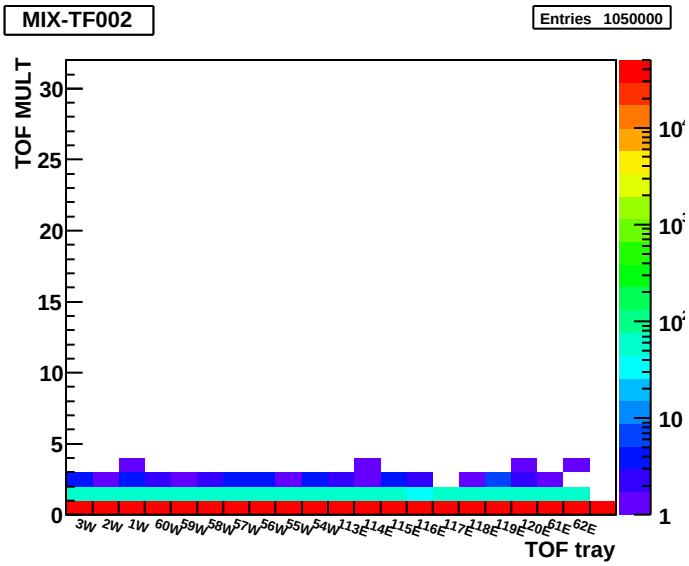

DAQ10k HT bits errors
Entries 299998
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

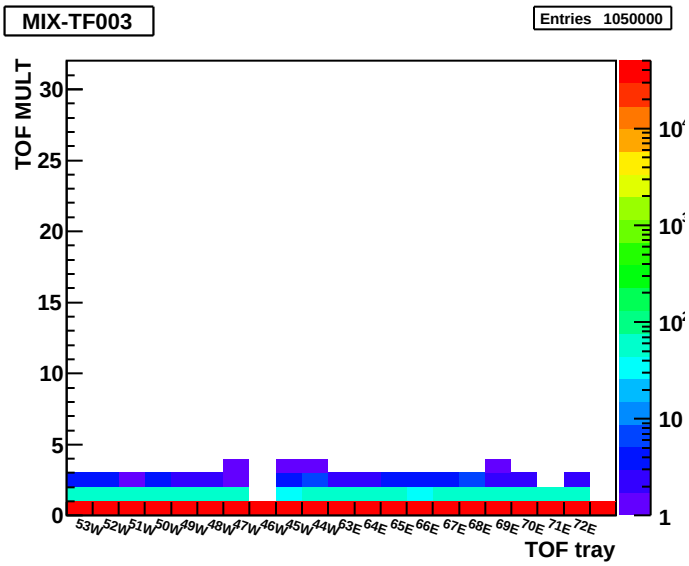

TPC Readout Mask (simulated)
Entries 325000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

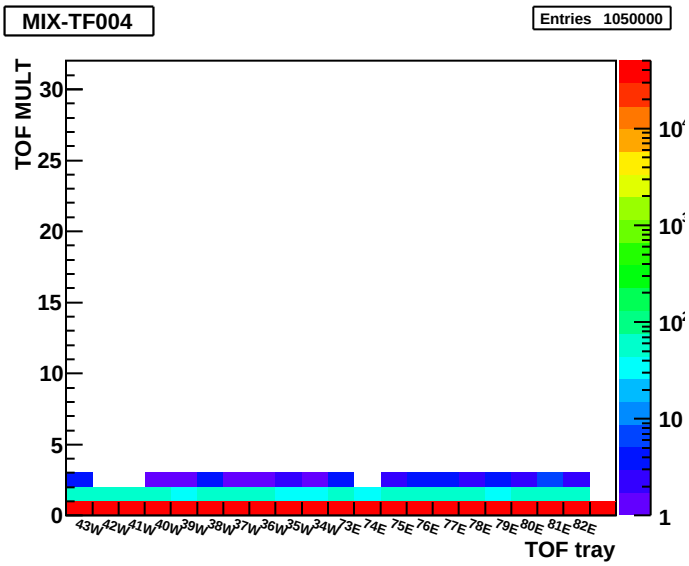

BunchId7Bit (all events)
Entries 25000
0 20 40 60 80 100 120

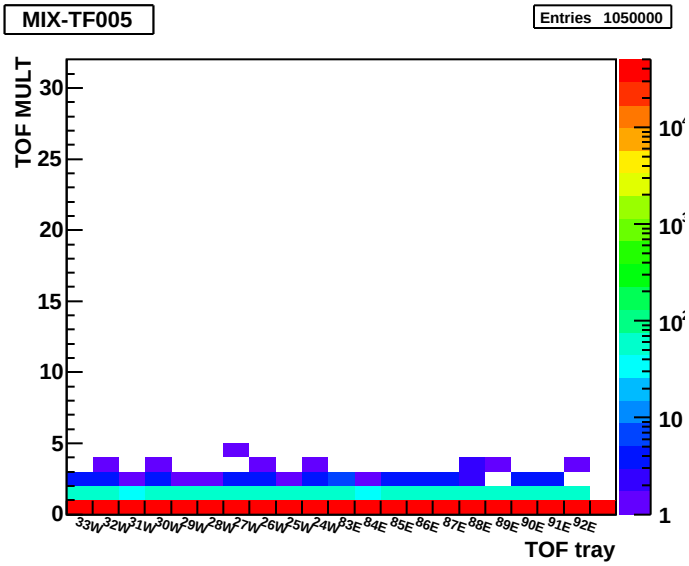

!Yellow-Fill
Entries 25000
0 20 40 60 80 100 120

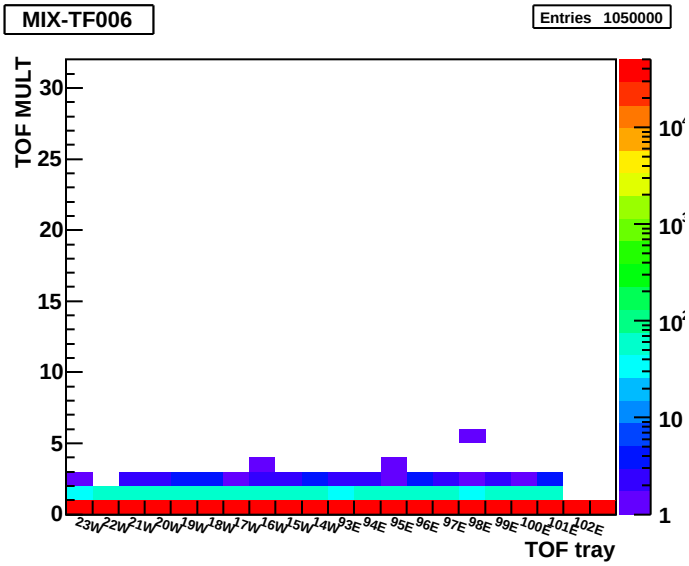

MIX-TF001
Entries 1050000
TOF MULT
TOF tray

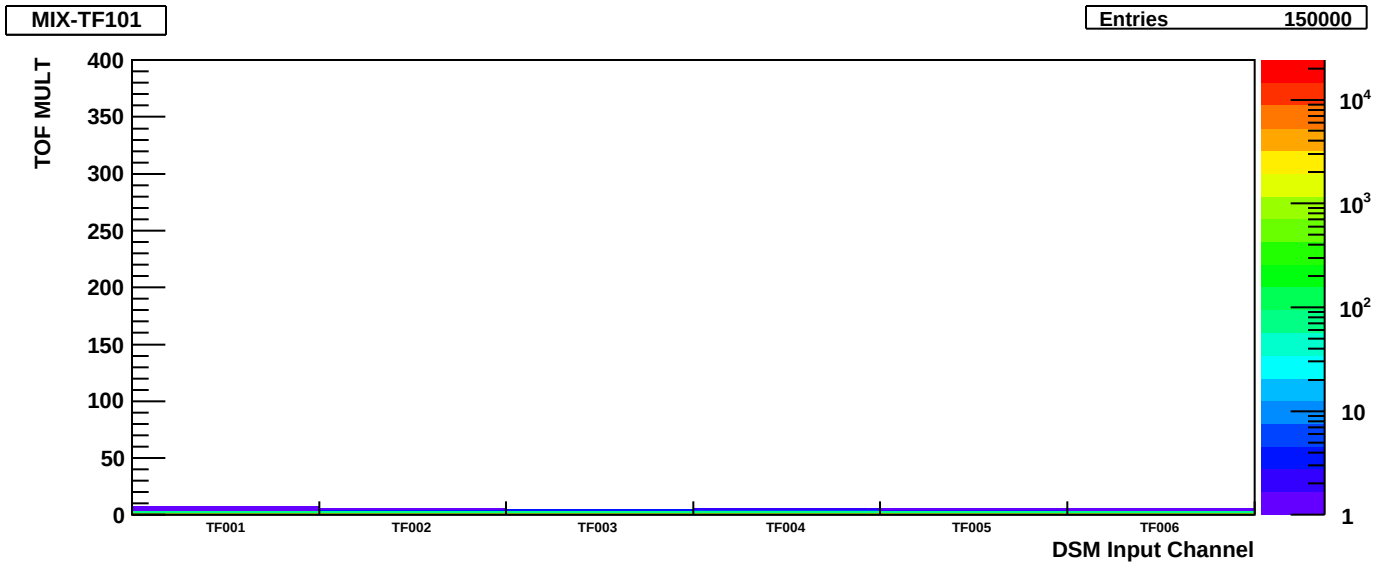

MIX-TF002
Entries 1050000
TOF MULT
TOF tray

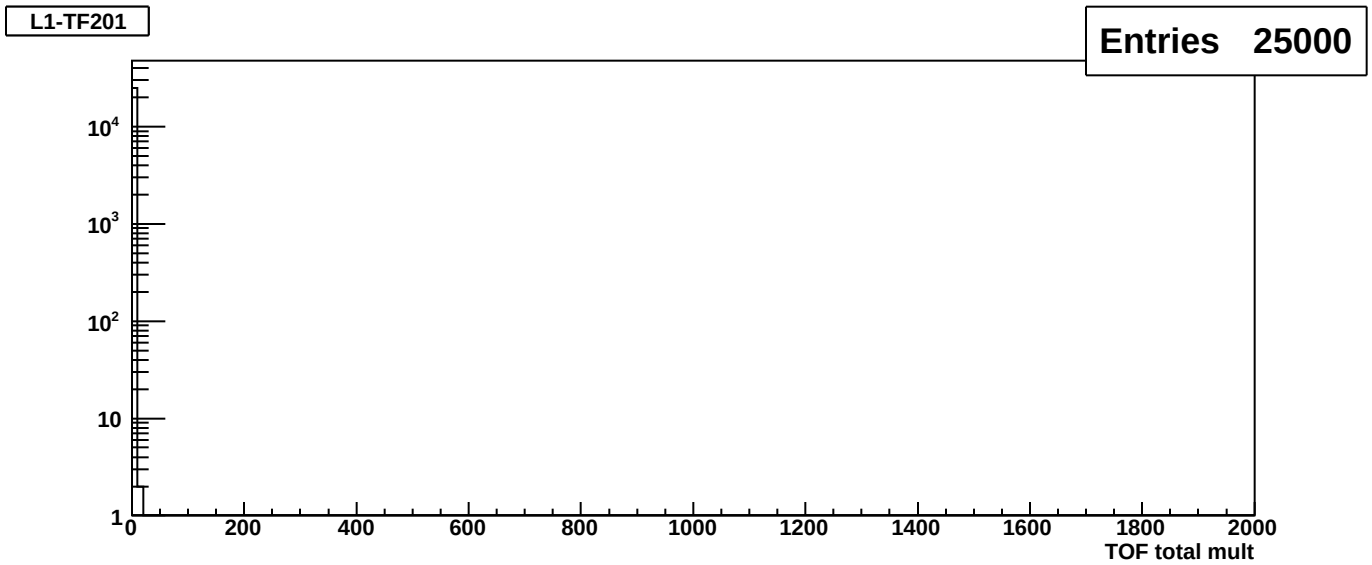

MIX-TF003
Entries 1050000
TOF MULT
TOF tray

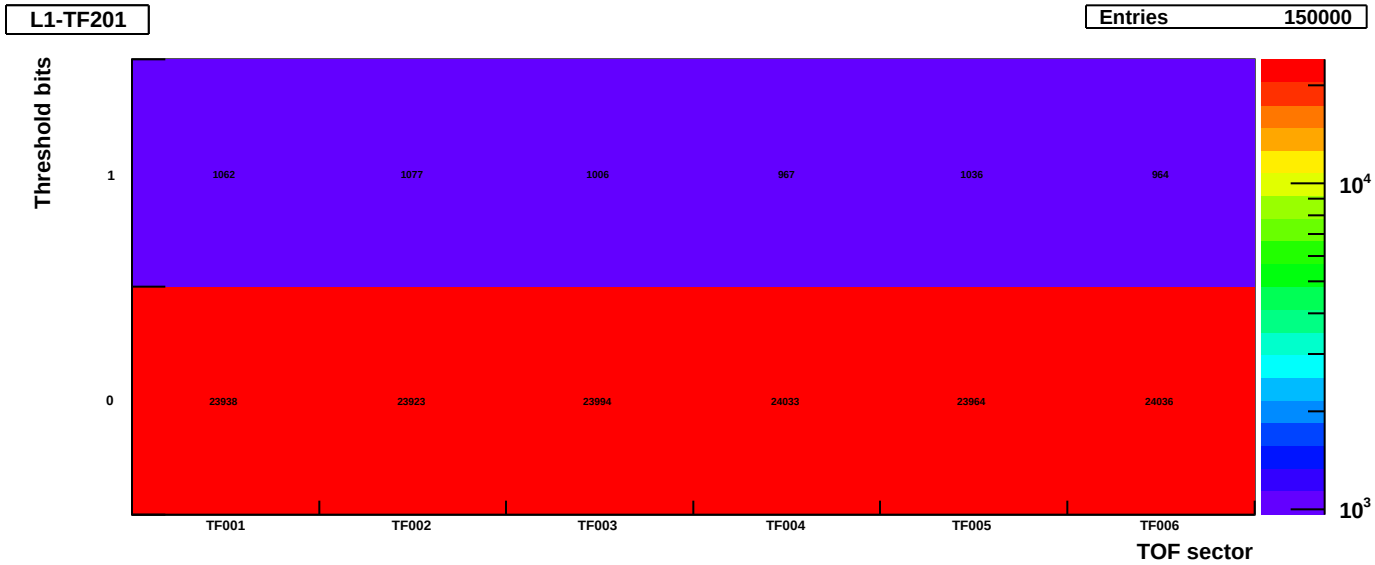

MIX-TF004
Entries 1050000
TOF MULT
TOF tray

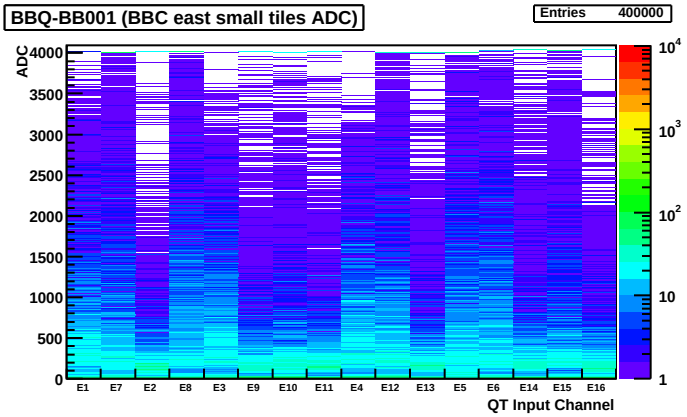

MIX-TF005
Entries 1050000
TOF MULT
TOF tray

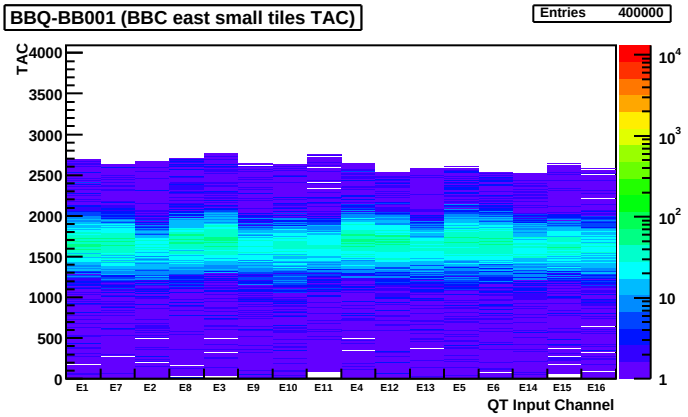

MIX-TF006
Entries 1050000
TOF MULT
TOF tray

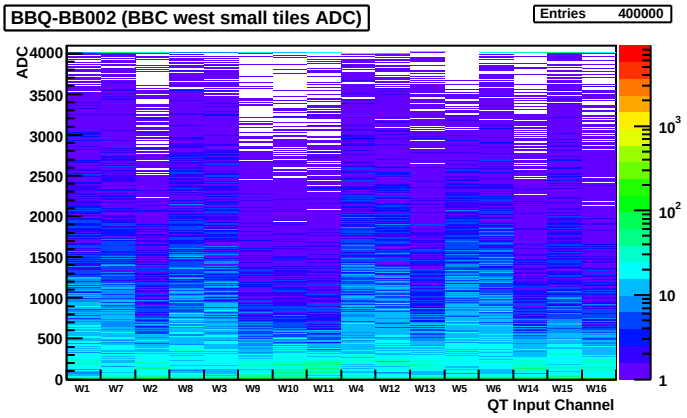

MIX-TF101
Entries 150000
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

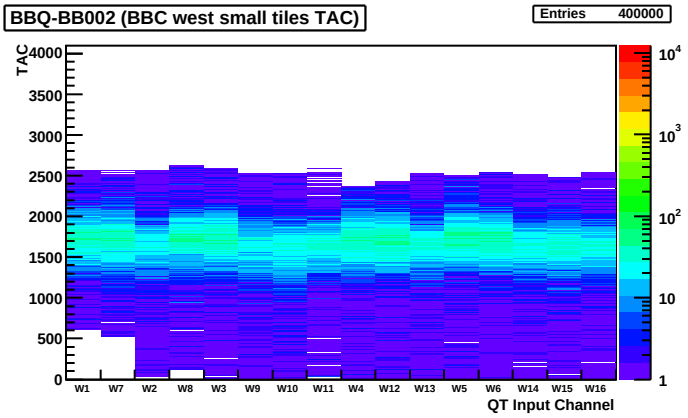

L1-TF201
Entries 25000
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

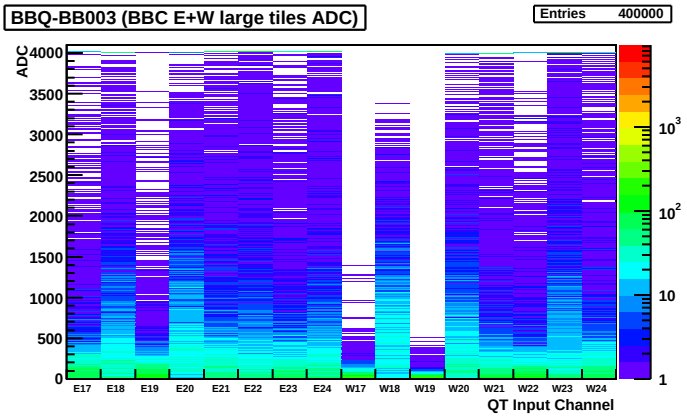

L1-TF201
Entries 150000
Threshold bits
1
0
1062
1077
1006
967
1036
964
23938
23923
23994
24033
23964
24036
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

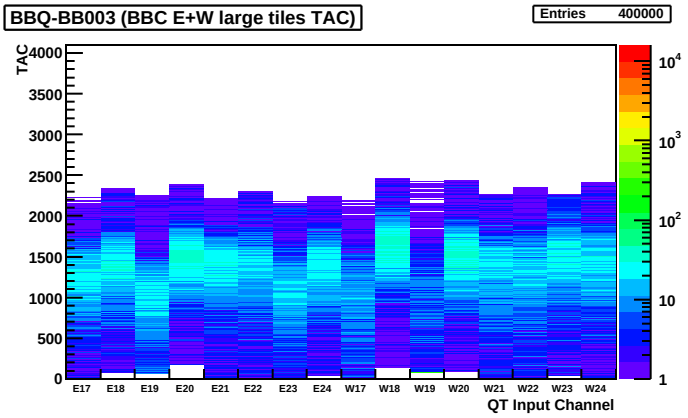

BBQ-BB001 (BBC east small tiles ADC)
Entries 400000
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

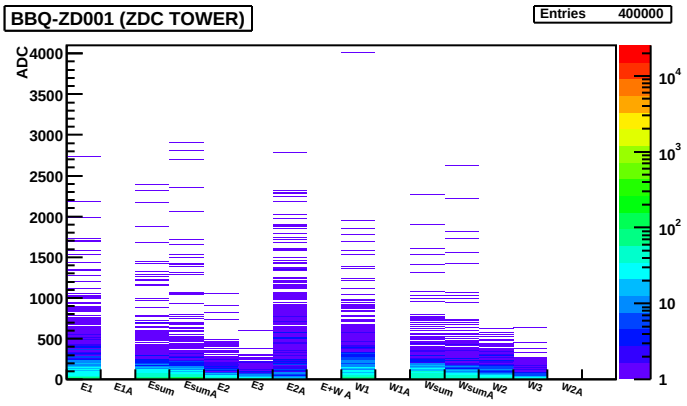

BBQ-BB001 (BBC east small tiles TAC)
Entries 400000
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

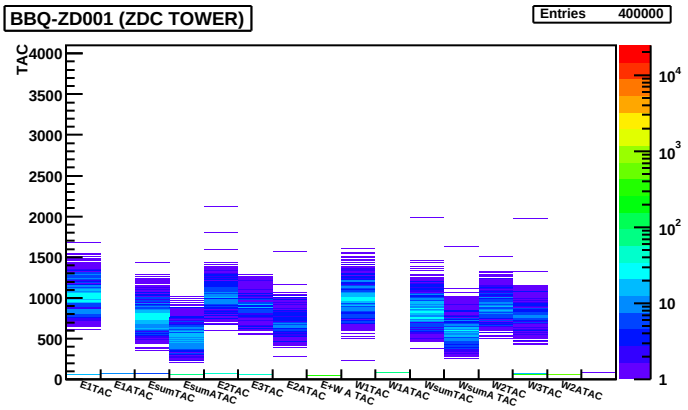

BBQ-BB002 (BBC west small tiles ADC)
Entries 400000
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

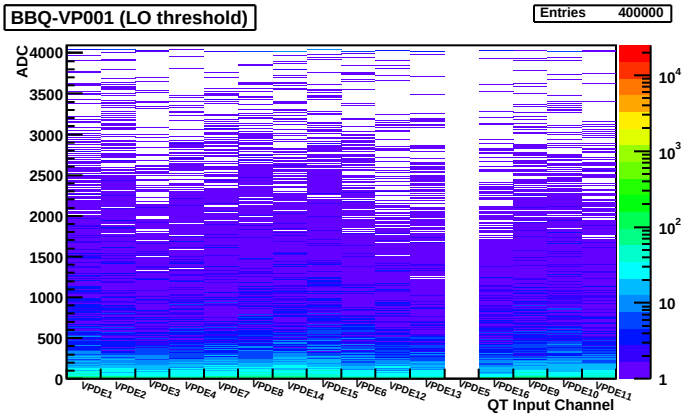

BBQ-BB002 (BBC west small tiles TAC)
Entries 400000
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

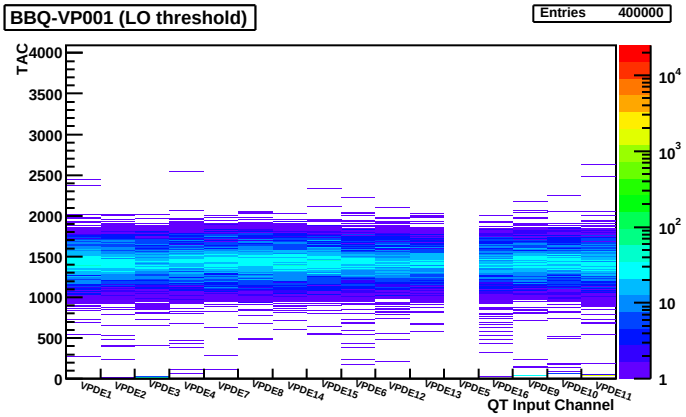

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 400000
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

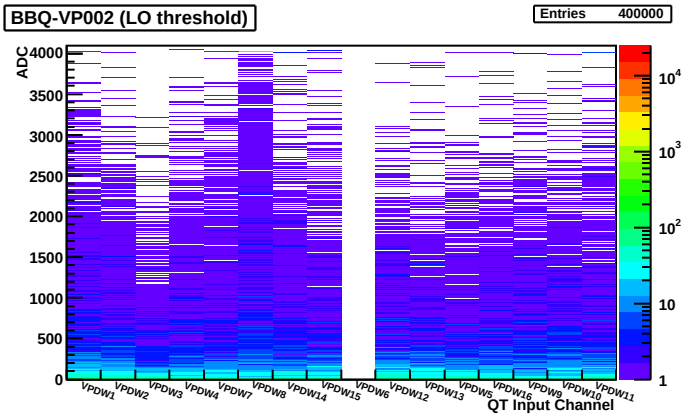

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 400000
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

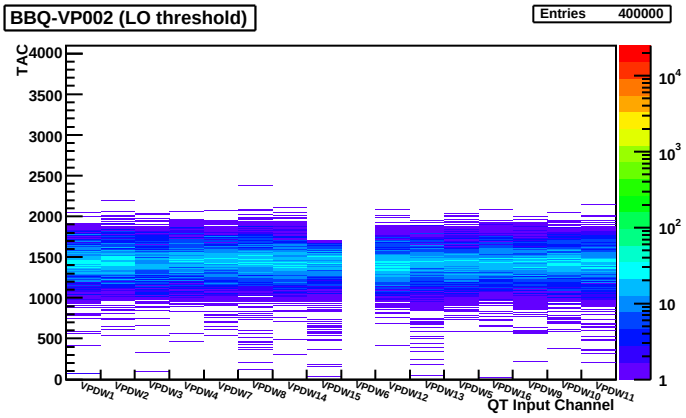

BBQ-ZD001 (ZDC TOWER)
Entries 400000
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

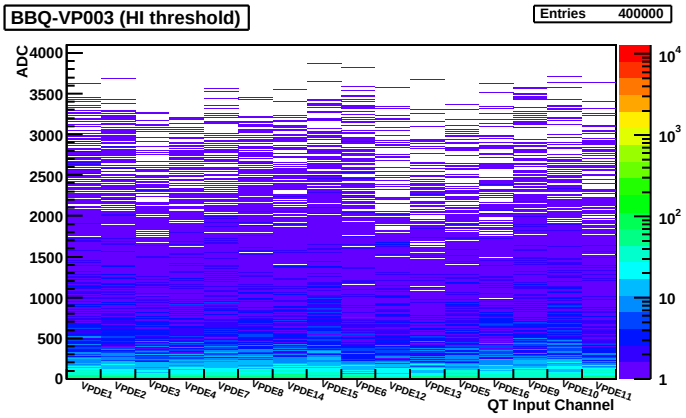

BBQ-ZD001 (ZDC TOWER)
Entries 400000
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

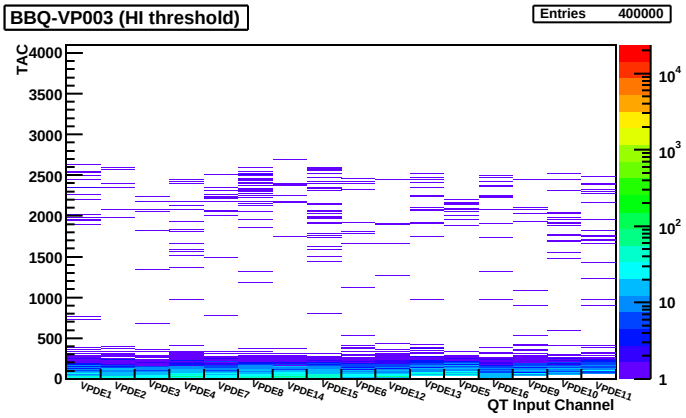

BBQ-VP001 (LO threshold)
Entries 400000
ADC
QT Input Channel

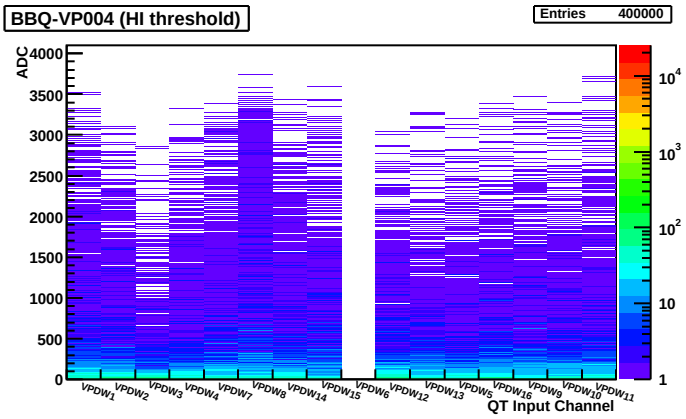

BBQ-VP001 (LO threshold)
Entries 400000
TAC
QT Input Channel

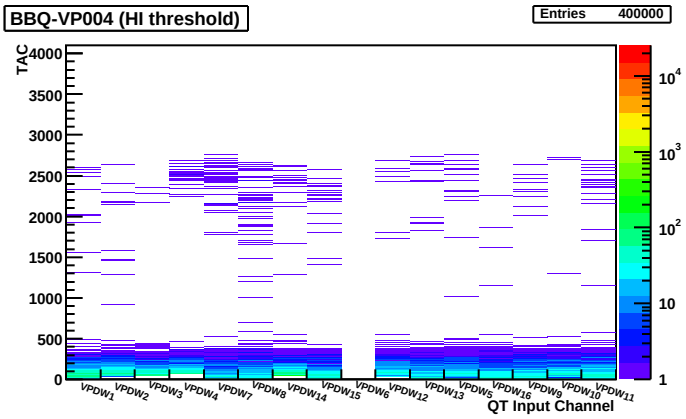

BBQ-VP002 (LO threshold)
Entries 400000
ADC
QT Input Channel

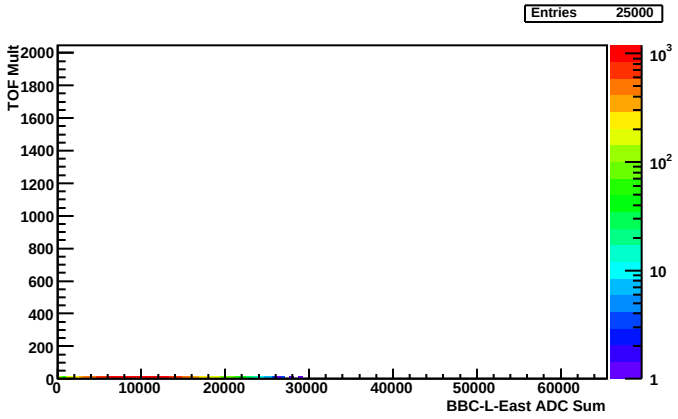

BBQ-VP002 (LO threshold)
Entries 400000
TAC
QT Input Channel

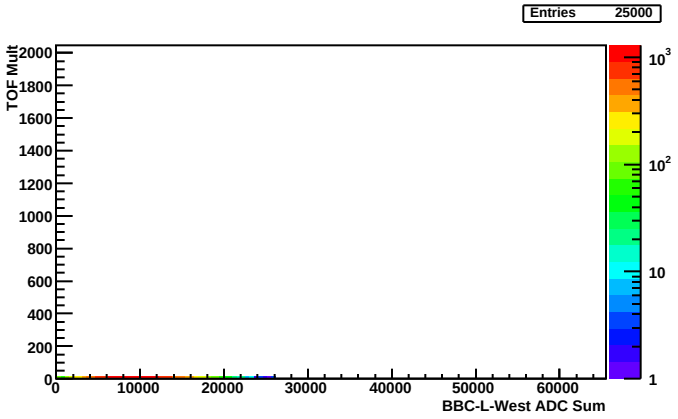

BBQ-VP003 (HI threshold)
Entries 400000
ADC
QT Input Channel

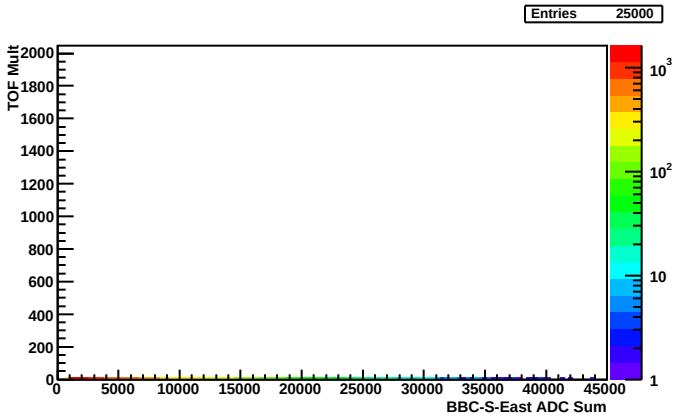

BBQ-VP003 (HI threshold)
Entries 400000
TAC
QT Input Channel

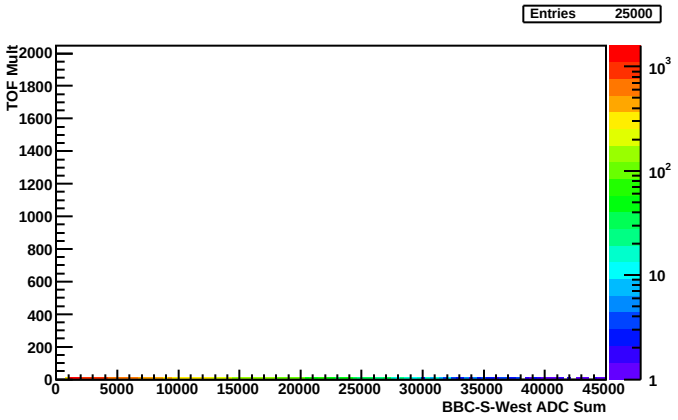

BBQ-VP004 (HI threshold)
Entries 400000
ADC
QT Input Channel

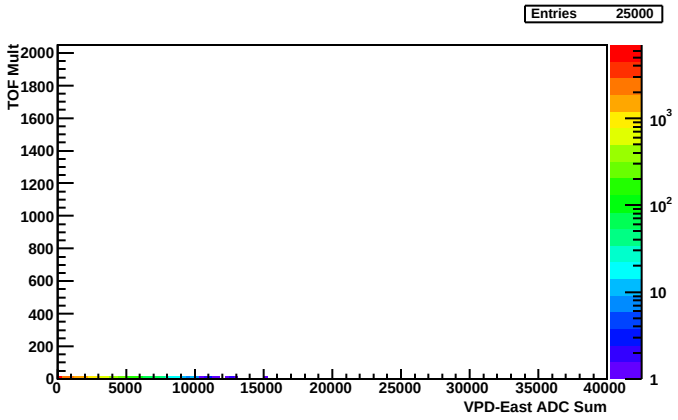

BBQ-VP004 (HI threshold)
Entries 400000
TAC
QT Input Channel

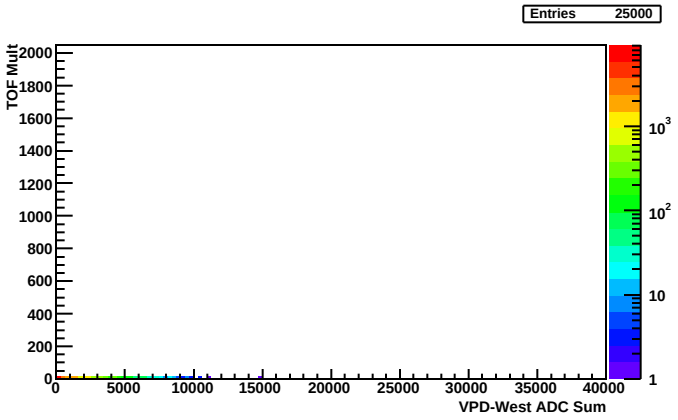

Entries 25000
TOF Mult
BBC-L-East ADC Sum

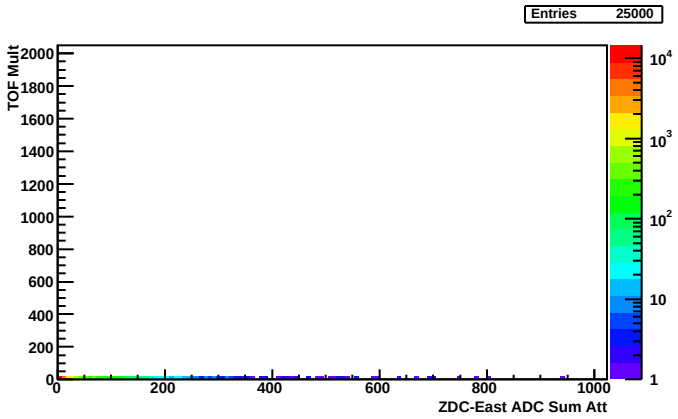

Entries 25000
TOF Mult
BBC-L-West ADC Sum

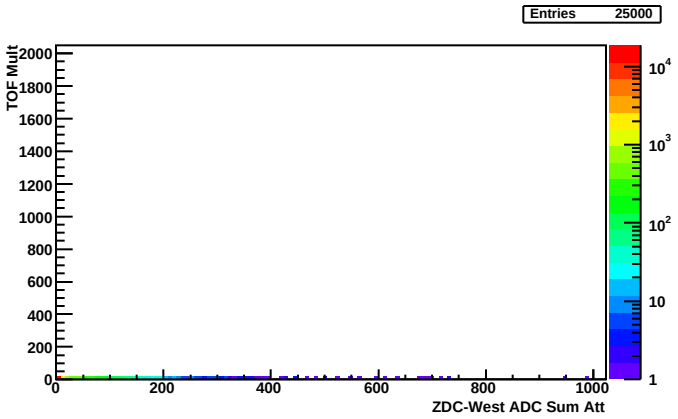

Entries 25000
TOF Mult
BBC-S-East ADC Sum

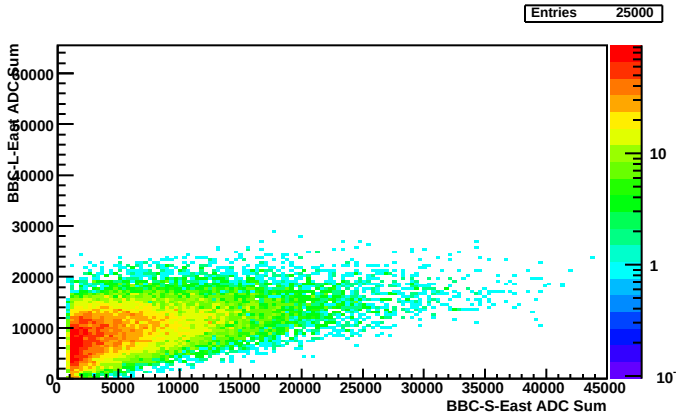

Entries 25000
TOF Mult
BBC-S-West ADC Sum

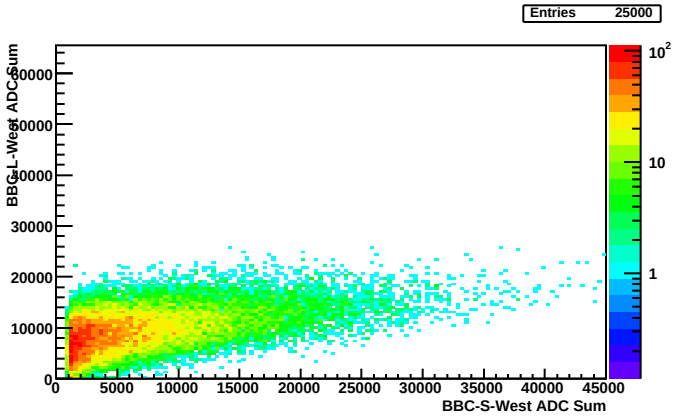

Entries 25000
TOF Mult
VPD-East ADC Sum

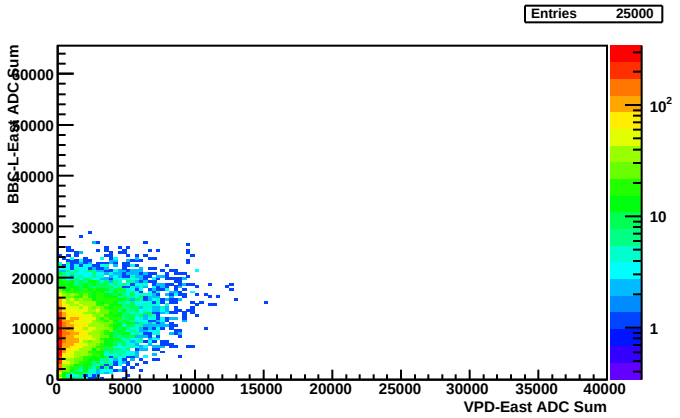

Entries 25000
TOF Mult
VPD-West ADC Sum

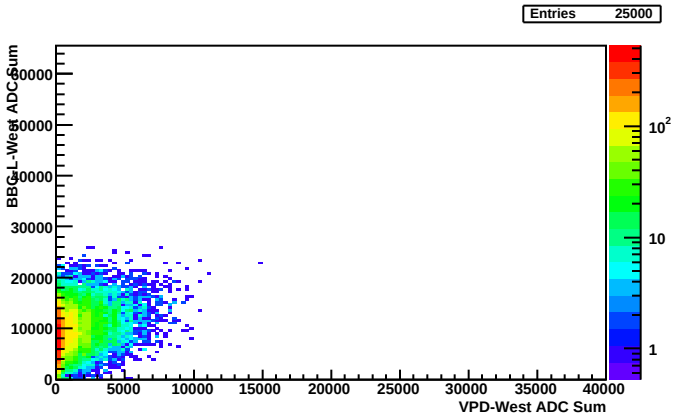

Entries 25000
TOF Mult
ZDC-East ADC Sum Att

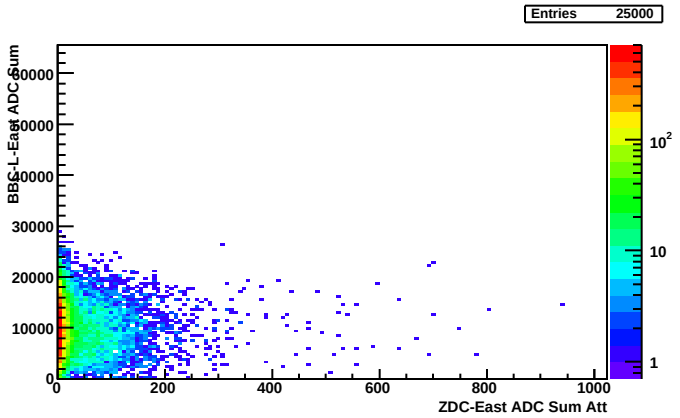

Entries 25000
TOF Mult
ZDC-West ADC Sum Att

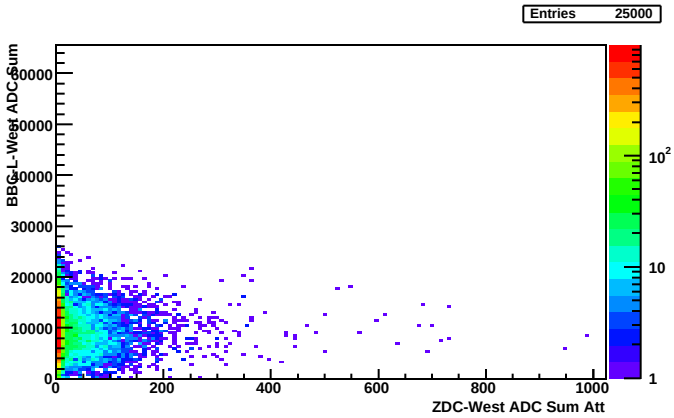

Entries 25000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

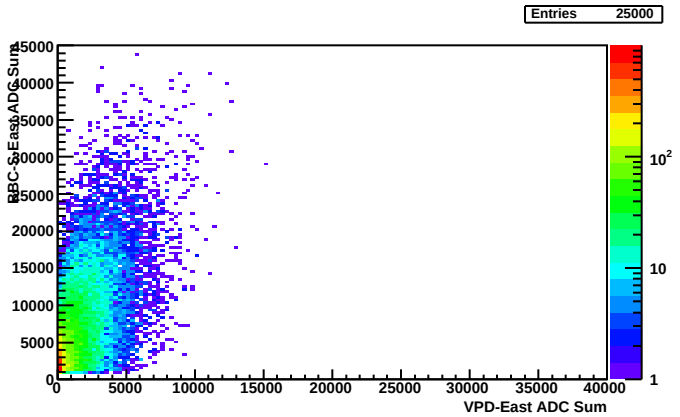

Entries 25000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

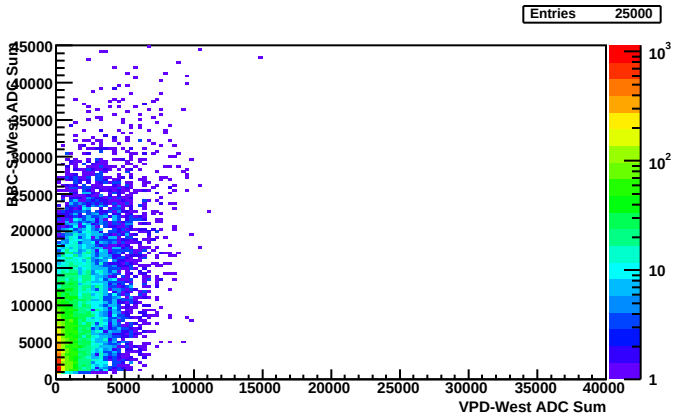

Entries 25000
BBC-L-East ADC Sum
VPD-East ADC Sum

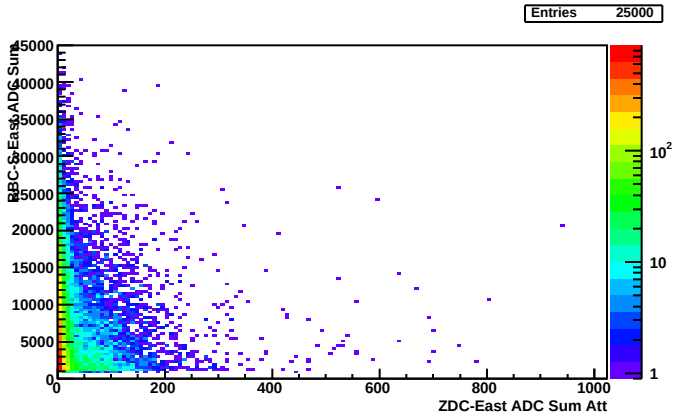

Entries 25000
BBC-L-West ADC Sum
VPD-West ADC Sum

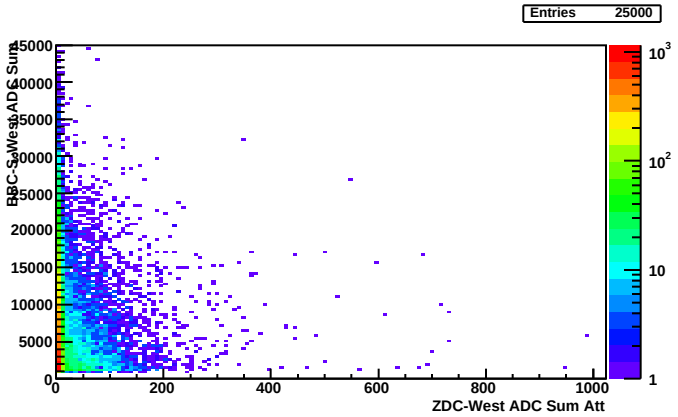

Entries 25000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

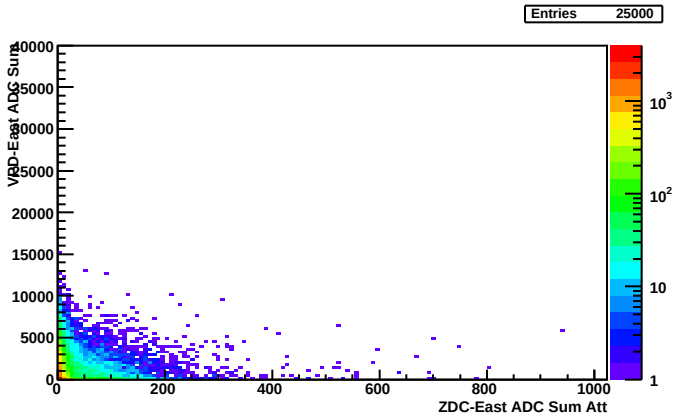

Entries 25000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

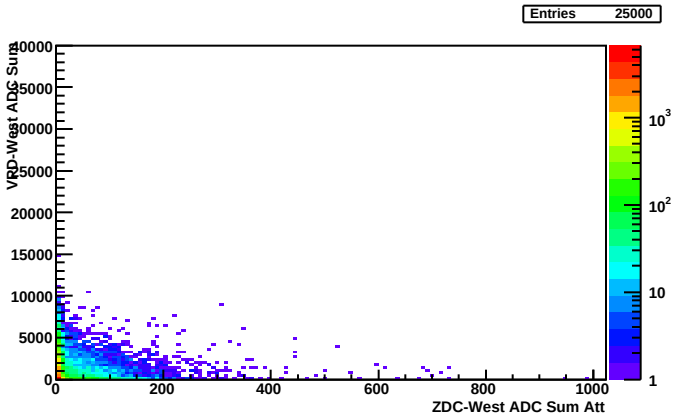

Entries 25000
BBC-S-East ADC Sum
VPD-East ADC Sum

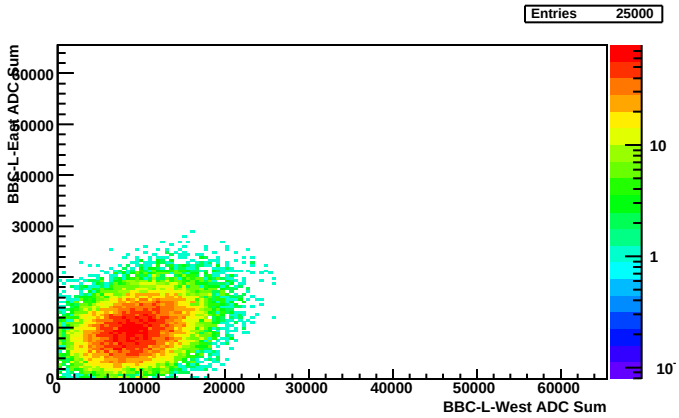

Entries 25000
BBC-S-West ADC Sum
VPD-West ADC Sum

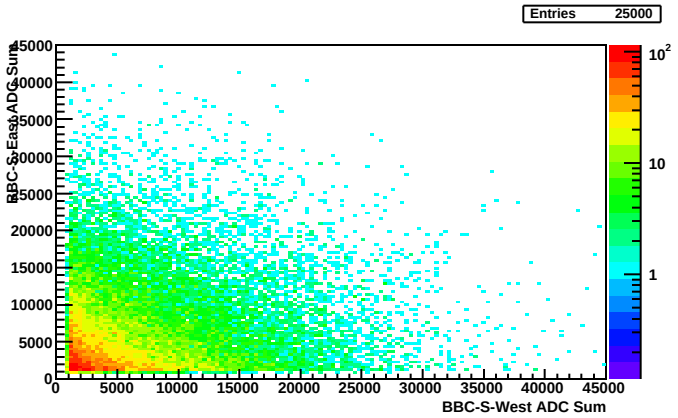

Entries 25000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

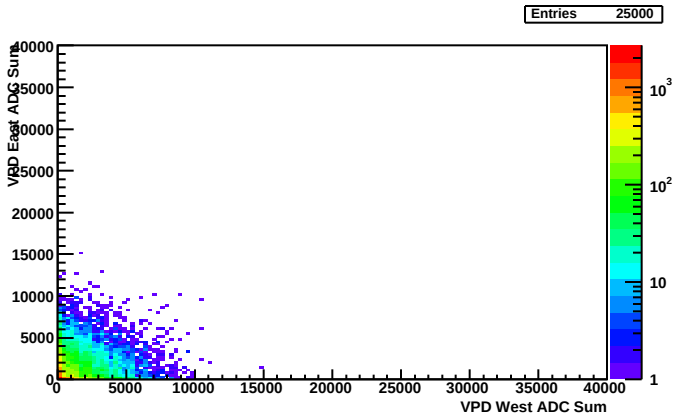

Entries 25000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

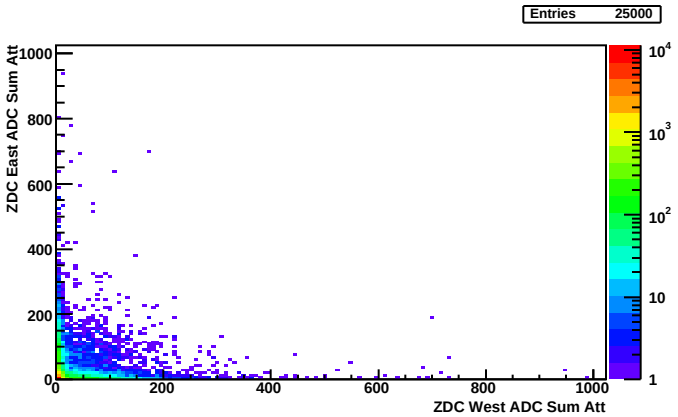

Entries 25000
VPD-East ADC Sum
ZDC-East ADC Sum Att

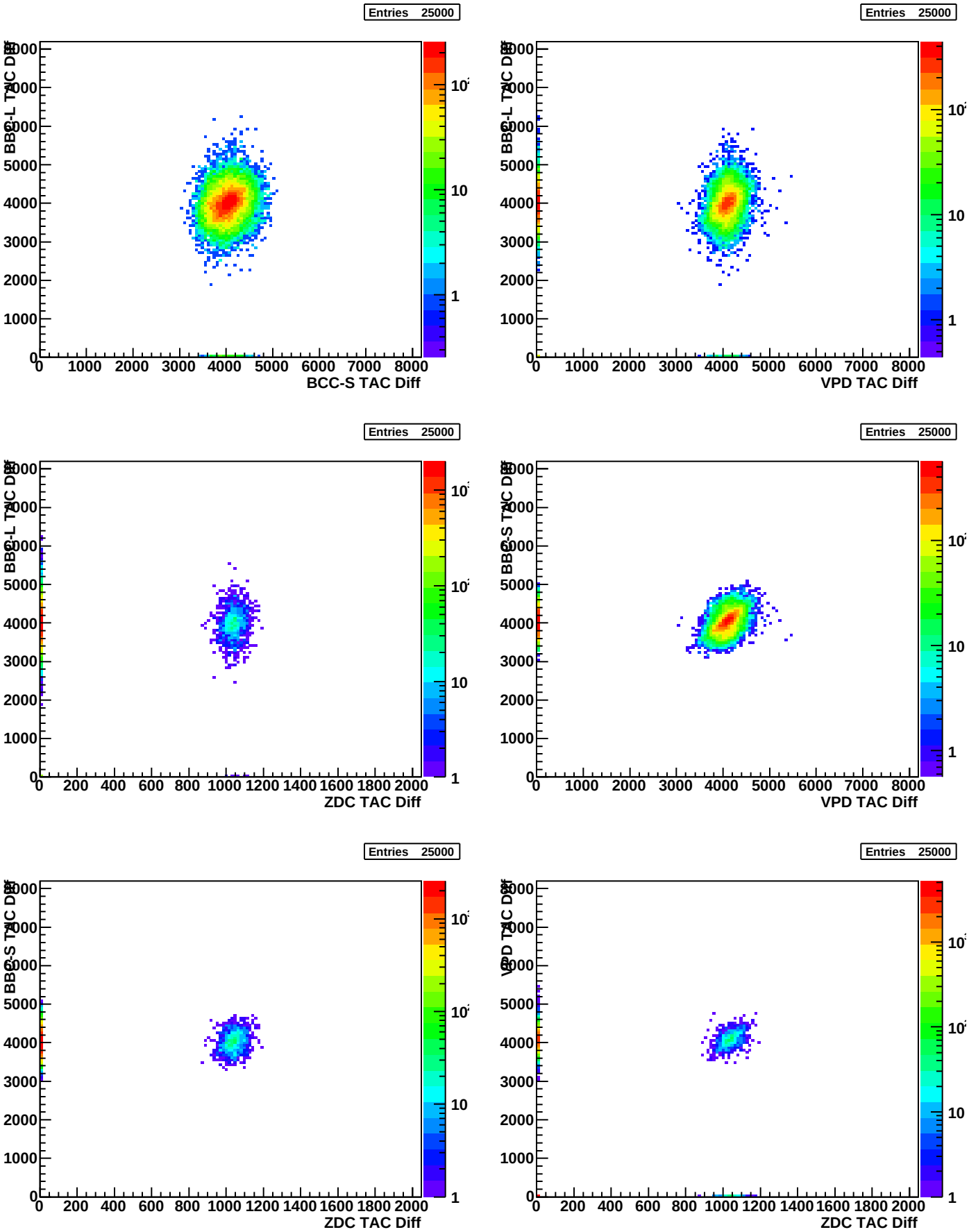

Entries 25000
VPD-West ADC Sum
ZDC-West ADC Sum Att

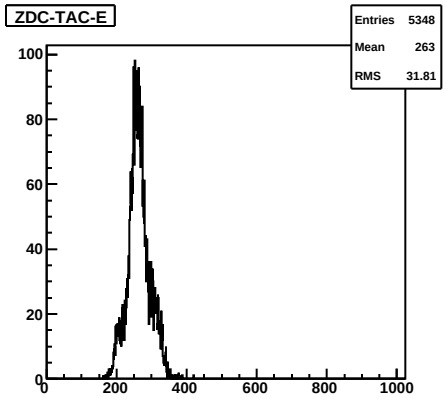

Entries 25000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

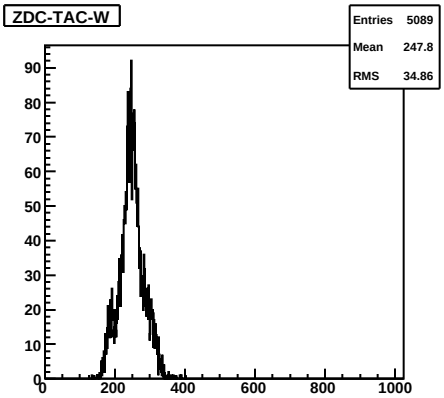

Entries 25000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

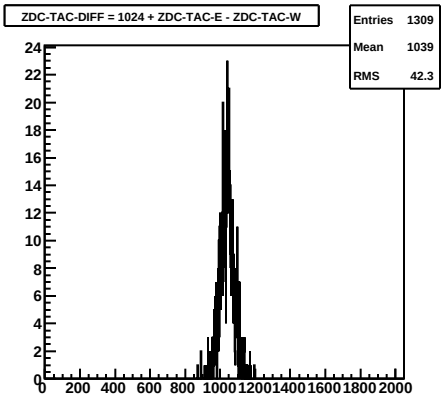

Entries 25000
VPD East ADC Sum
VPD West ADC Sum

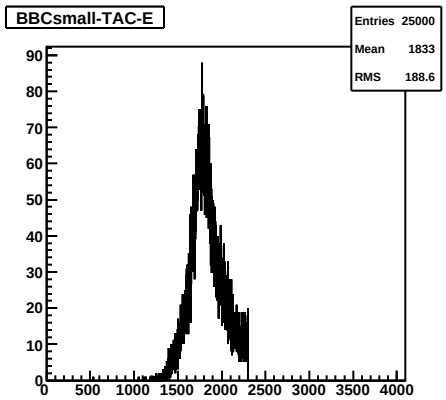

Entries 25000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

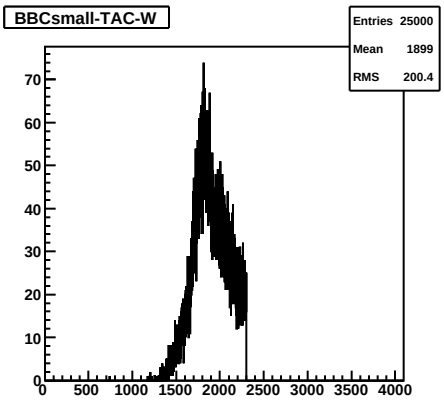

Entries 25000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 25000
BBC-L TAC Diff
VPD TAC Diff
Entries 25000
BBC-L TAC Diff
ZDC TAC Diff
Entries 25000
BBC-S TAC Diff
VPD TAC Diff
Entries 25000
BBC-S TAC Diff
ZDC TAC Diff
Entries 25000
VPD TAC Diff
ZDC TAC Diff

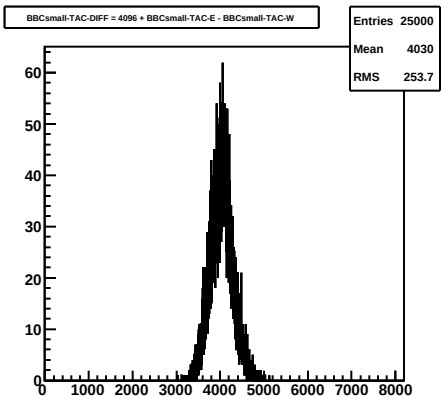

ZDC-TAC-E
Entries 5348
Mean 263
RMS 31.81

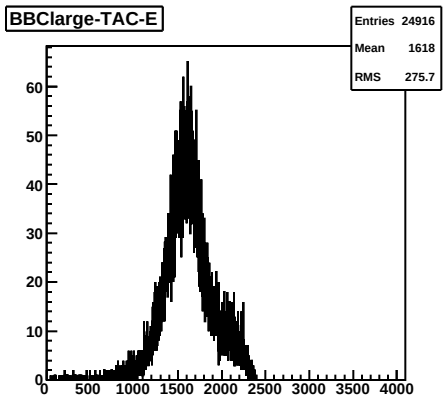

ZDC-TAC-W
Entries 5089
Mean 247.8
RMS 34.86

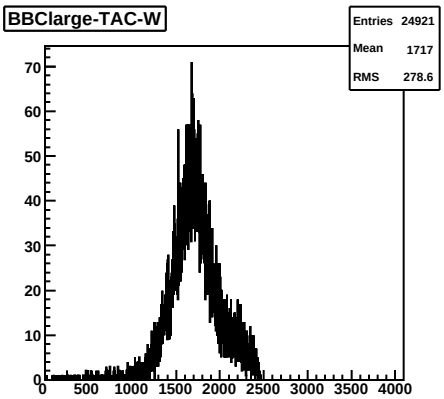

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1309
Mean 1039
RMS 42.3

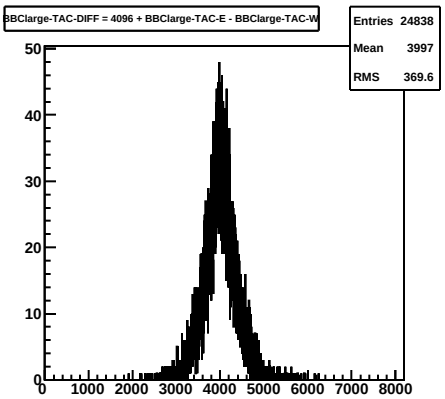

BBCsmall-TAC-E
Entries 25000
Mean 1833
RMS 188.6

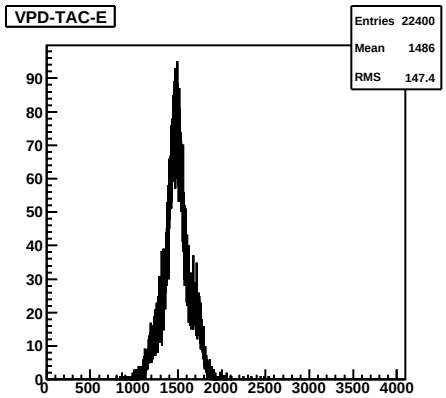

BBCsmall-TAC-W
Entries 25000
Mean 1899
RMS 200.4

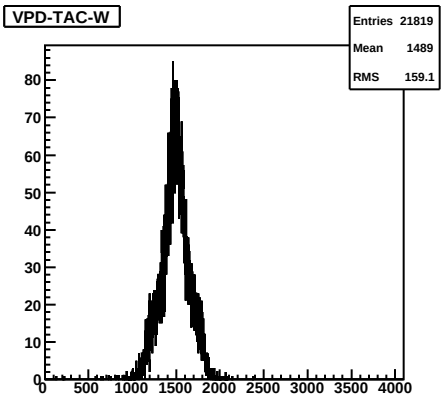

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 25000
Mean 4030
RMS 253.7

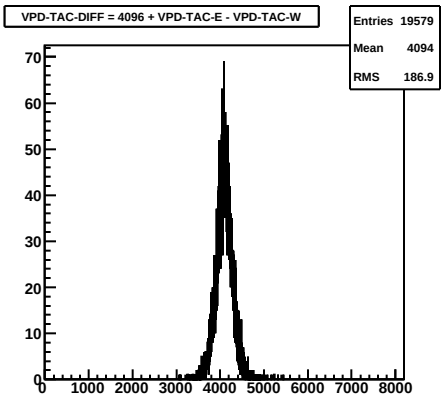

BBClarge-TAC-E
Entries 24916
Mean 1618
RMS 275.7

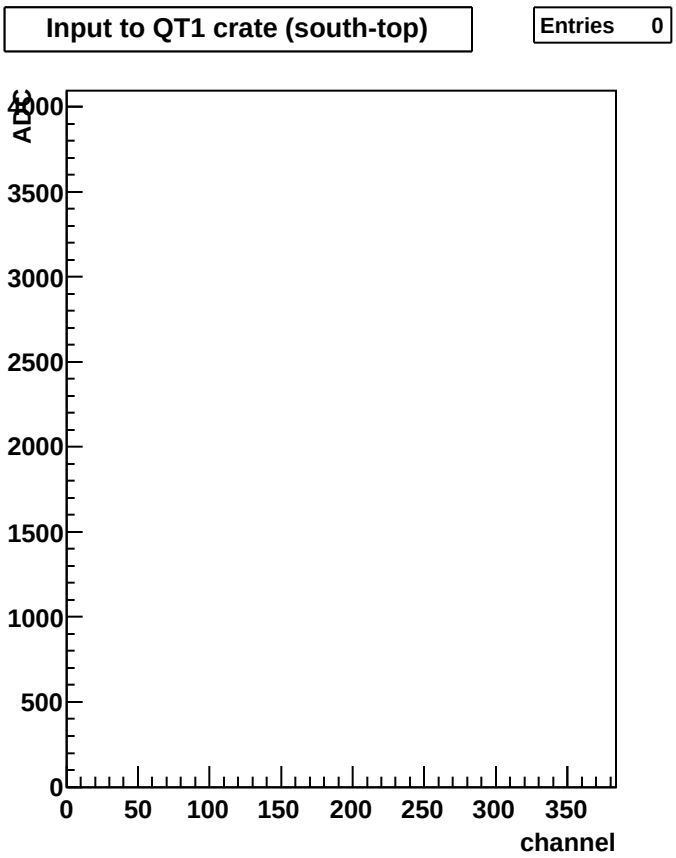

BBClarge-TAC-W
Entries 24921
Mean 1717
RMS 278.6

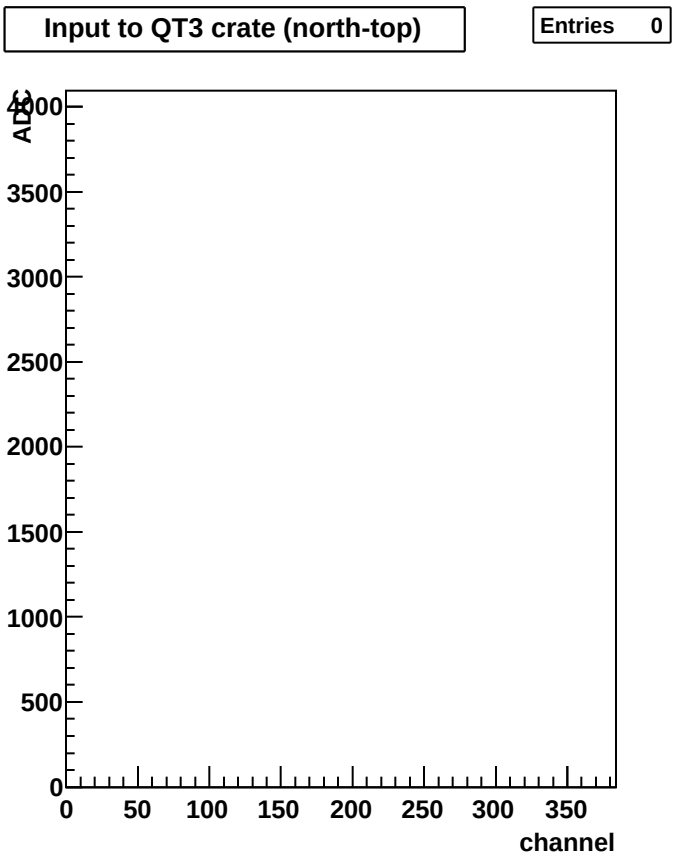

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 24838
Mean 3997
RMS 369.6

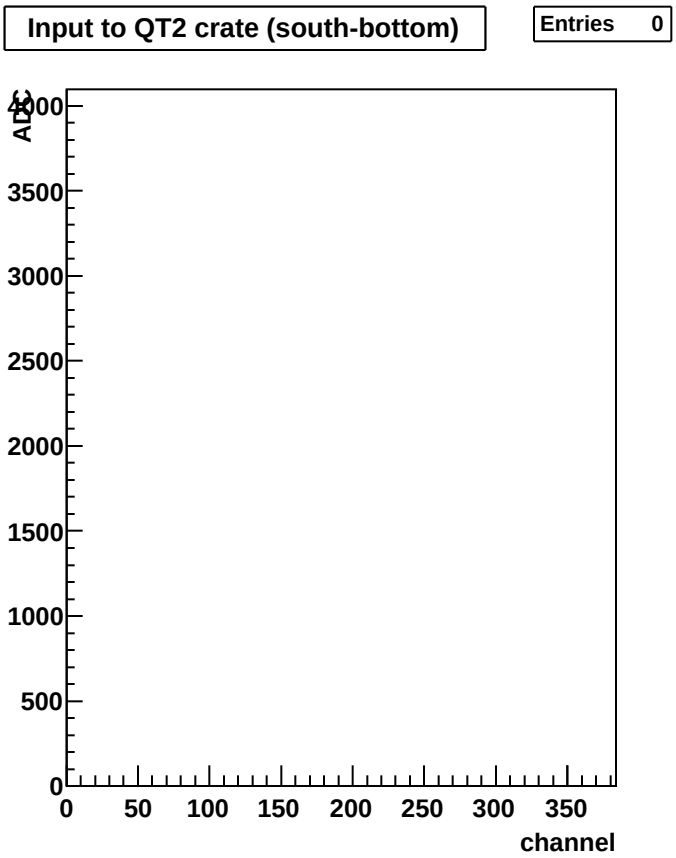

VPD-TAC-E
Entries 22400
Mean 1486
RMS 147.4

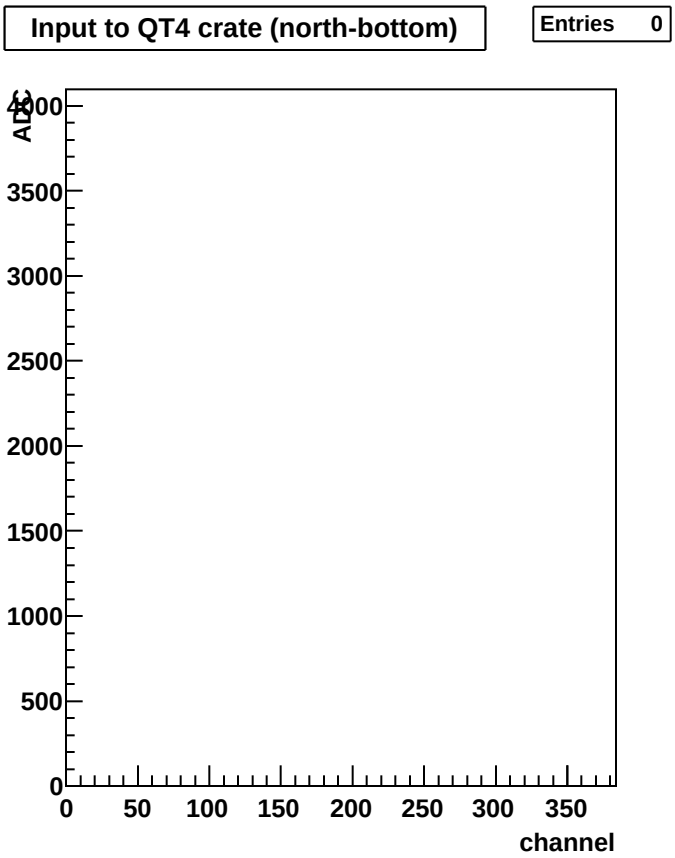

VPD-TAC-W
Entries 21819
Mean 1489
RMS 159.1

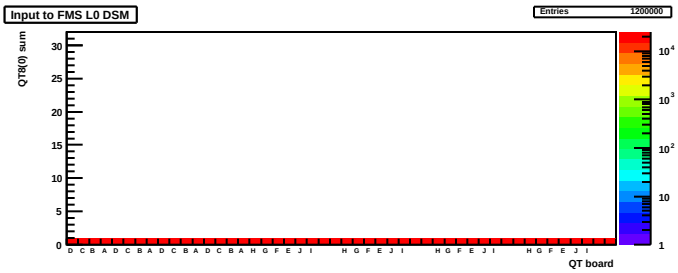

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19579
Mean 4094
RMS 186.9

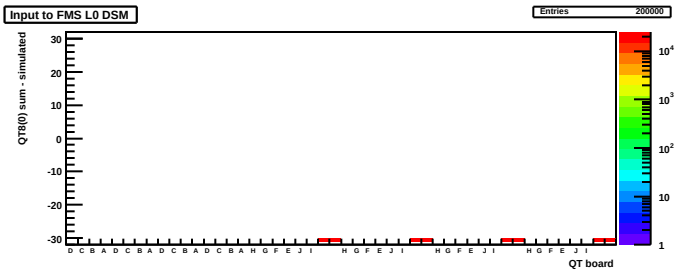

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

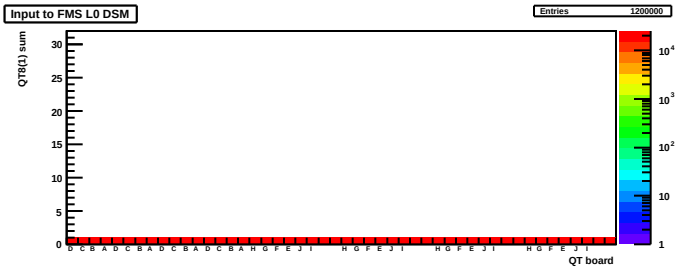

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

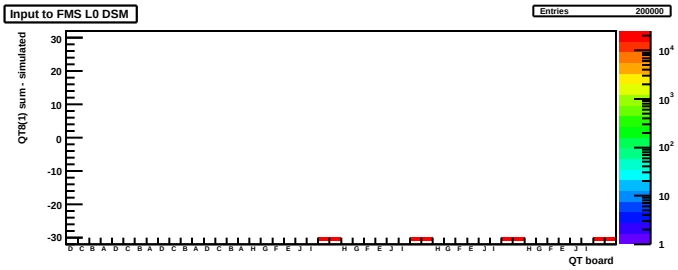

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

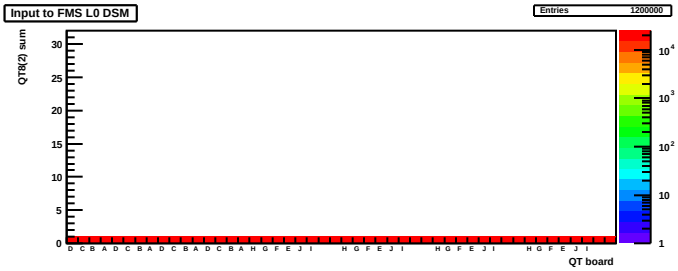

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

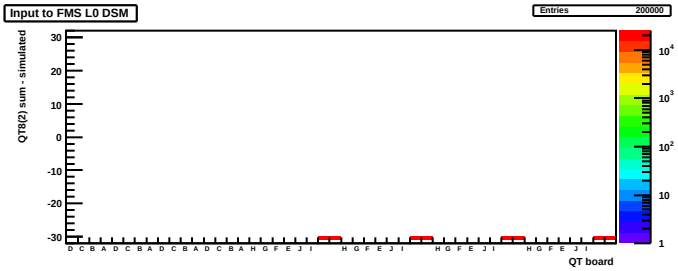

Input to FMS L0 DSM
Entries 1200000
QT8(0) sum
QT board

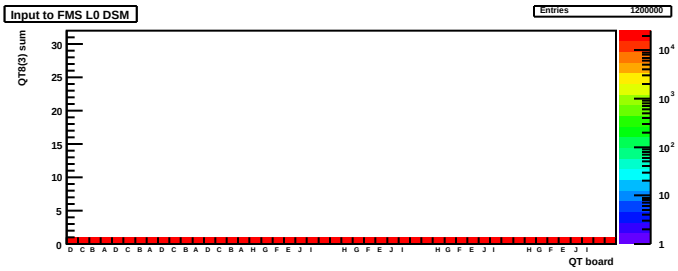

Input to FMS L0 DSM
Entries 200000
QT8(0) sum - simulated
QT board

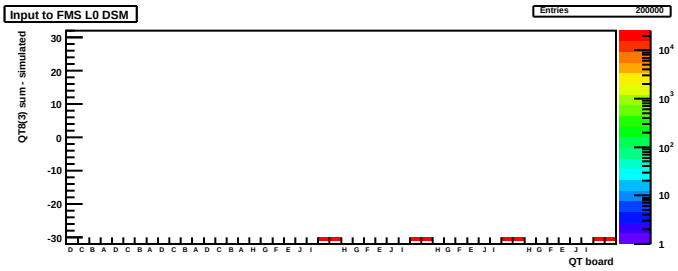

Input to FMS L0 DSM
Entries 1200000
QT8(1) sum
QT board

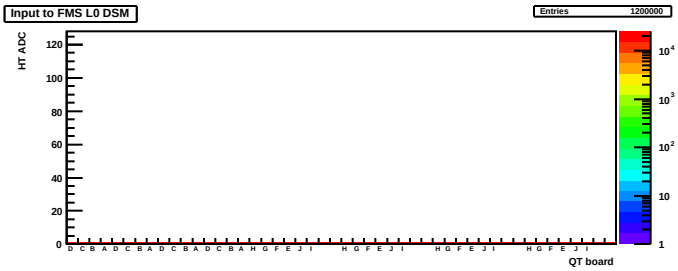

Input to FMS L0 DSM
Entries 200000
QT8(1) sum - simulated
QT board

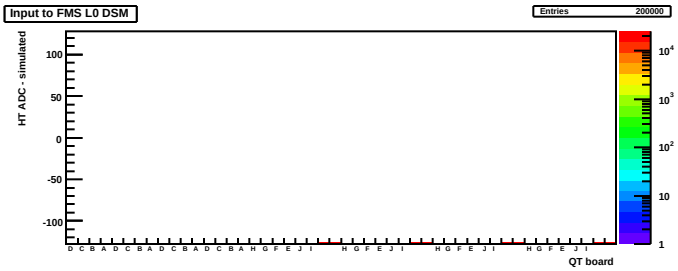

Input to FMS L0 DSM
Entries 1200000
QT8(2) sum
QT board

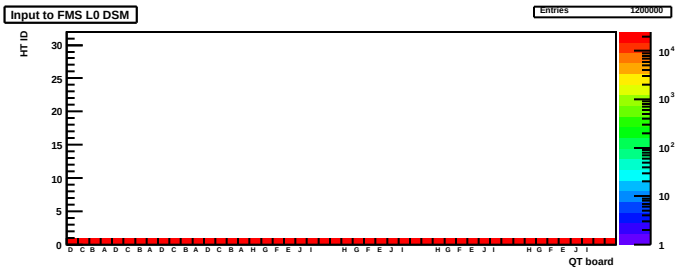

Input to FMS L0 DSM
Entries 200000
QT8(2) sum - simulated
QT board

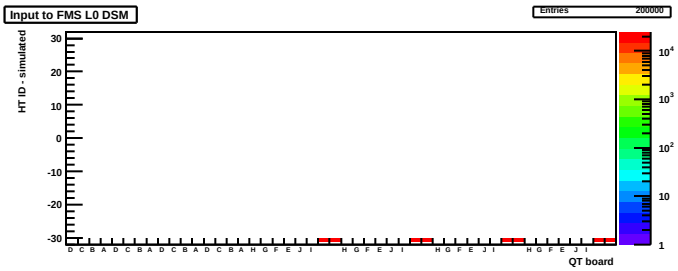

Input to FMS L0 DSM
Entries 1200000
QT8(3) sum
QT board

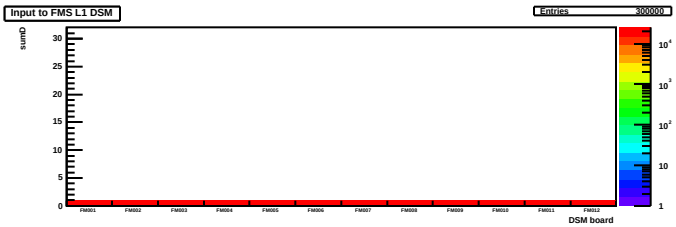

Input to FMS L0 DSM
Entries 200000
QT8(3) sum - simulated
QT board

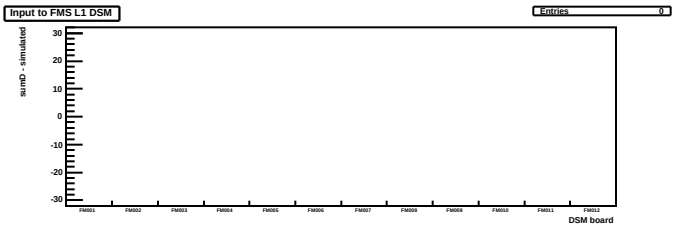

Input to FMS L0 DSM
Entries 1200000
HT ADC
QT board

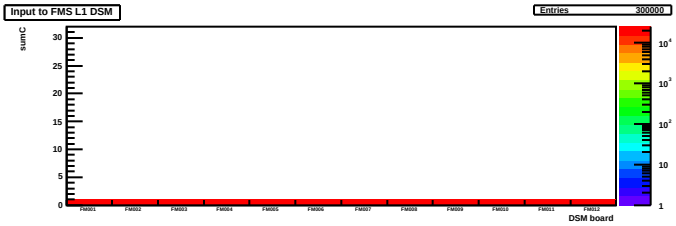

Input to FMS L0 DSM
Entries 200000
HT ADC - simulated
QT board

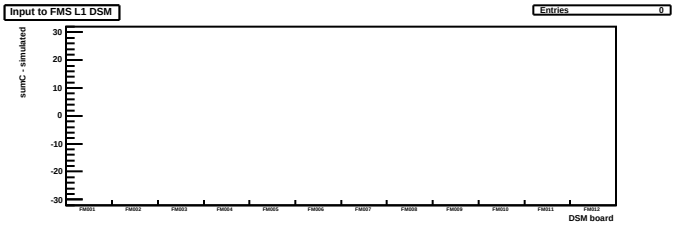

Input to FMS L0 DSM
Entries 1200000
HT ID
QT board

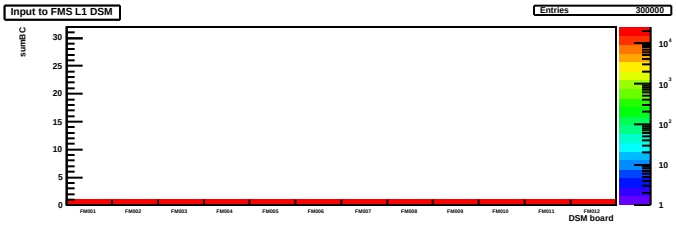

Input to FMS L0 DSM
Entries 200000
HT ID - simulated
QT board

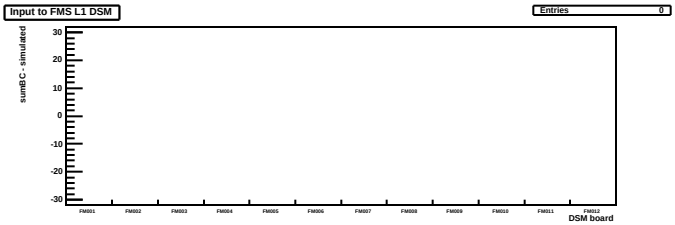

Input to FMS L1 DSM
Entries 300000
sumD
DSM board

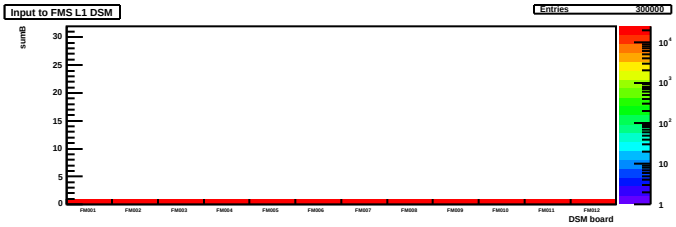

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

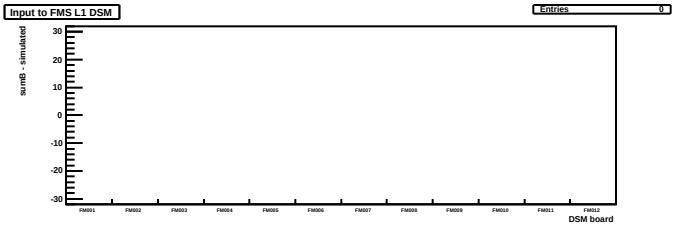

Input to FMS L1 DSM
Entries 300000
sumC
DSM board

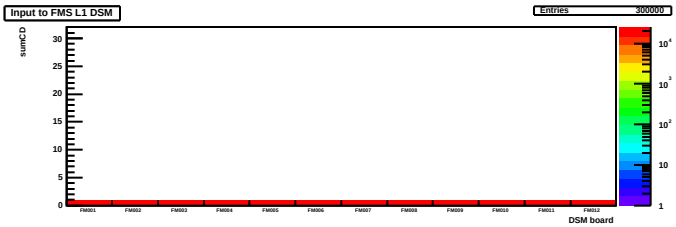

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

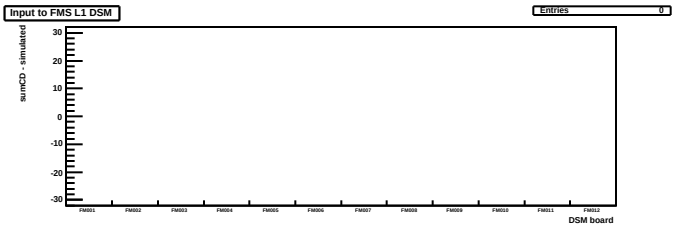

Input to FMS L1 DSM
Entries 300000
sumBC
DSM board

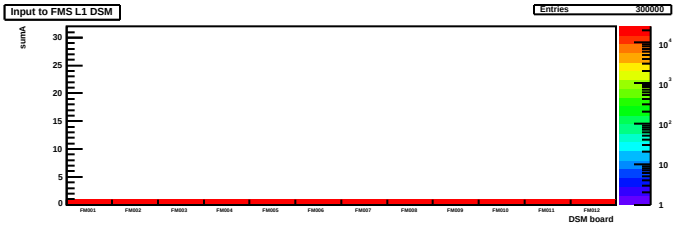

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

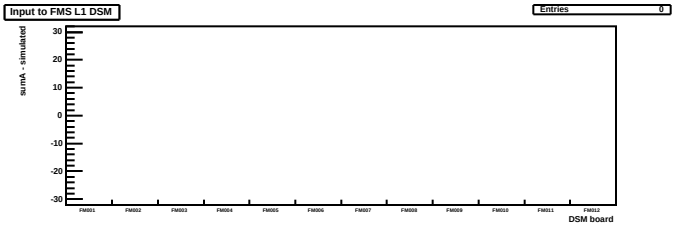

Input to FMS L1 DSM
Entries 300000
sumB
DSM board

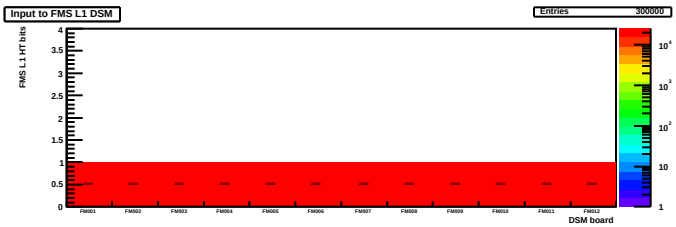

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

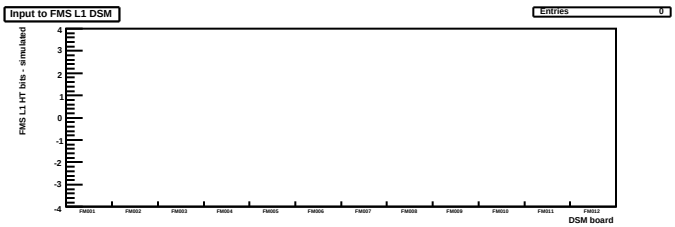

Input to FMS L1 DSM
Entries 300000
sumCD
DSM board

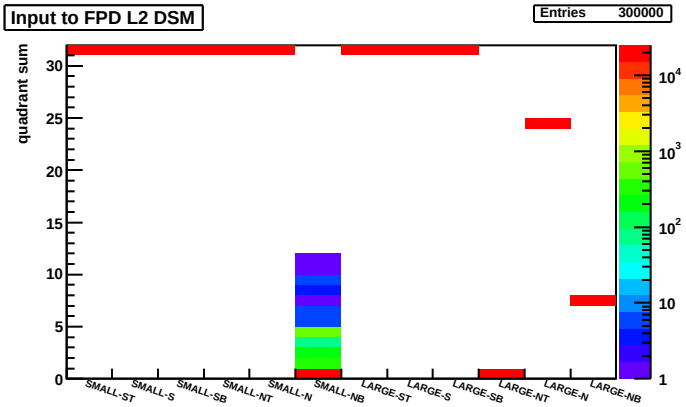

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

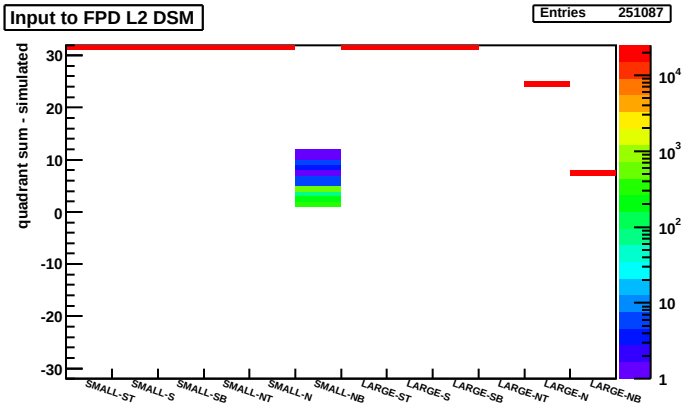

Input to FMS L1 DSM
Entries 300000
sumA
DSM board

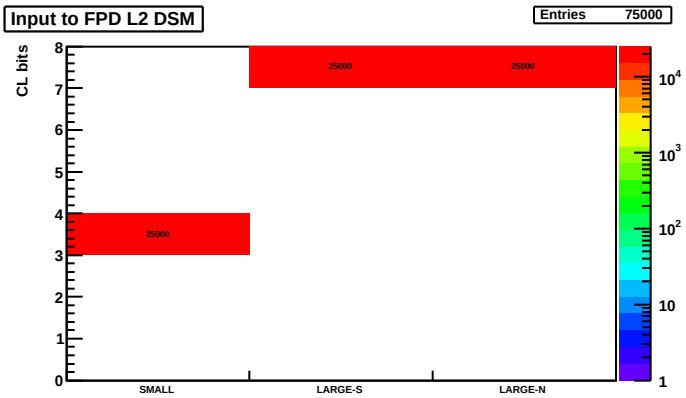

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

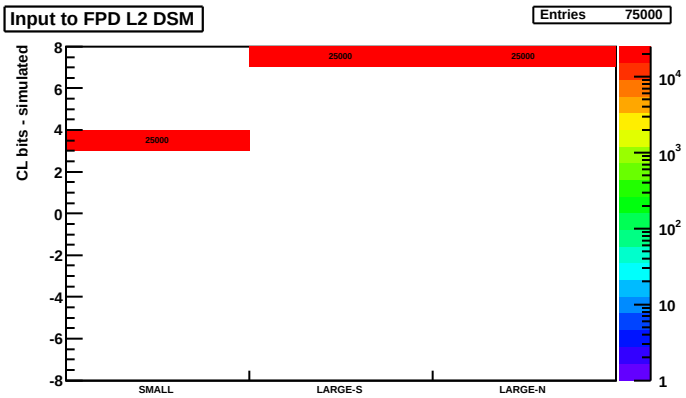

Input to FMS L1 DSM
Entries 300000
FMS L1 HT bits
DSM board

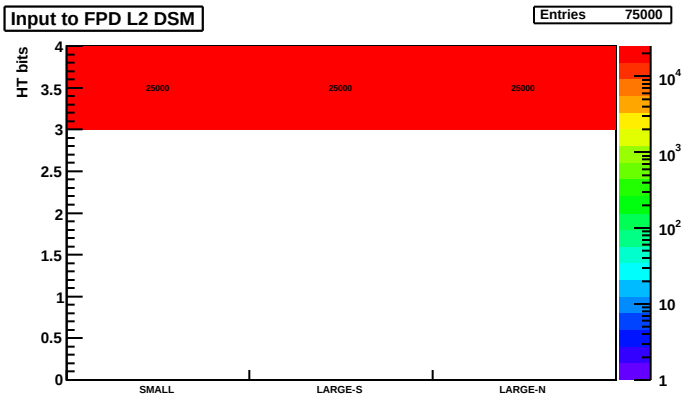

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

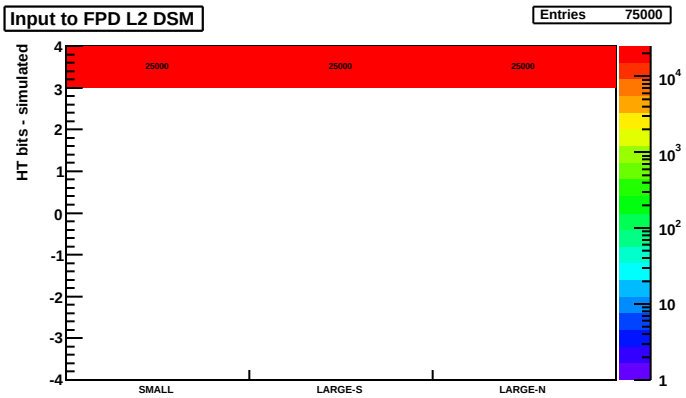

Input to FPD L2 DSM
Entries 300000
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

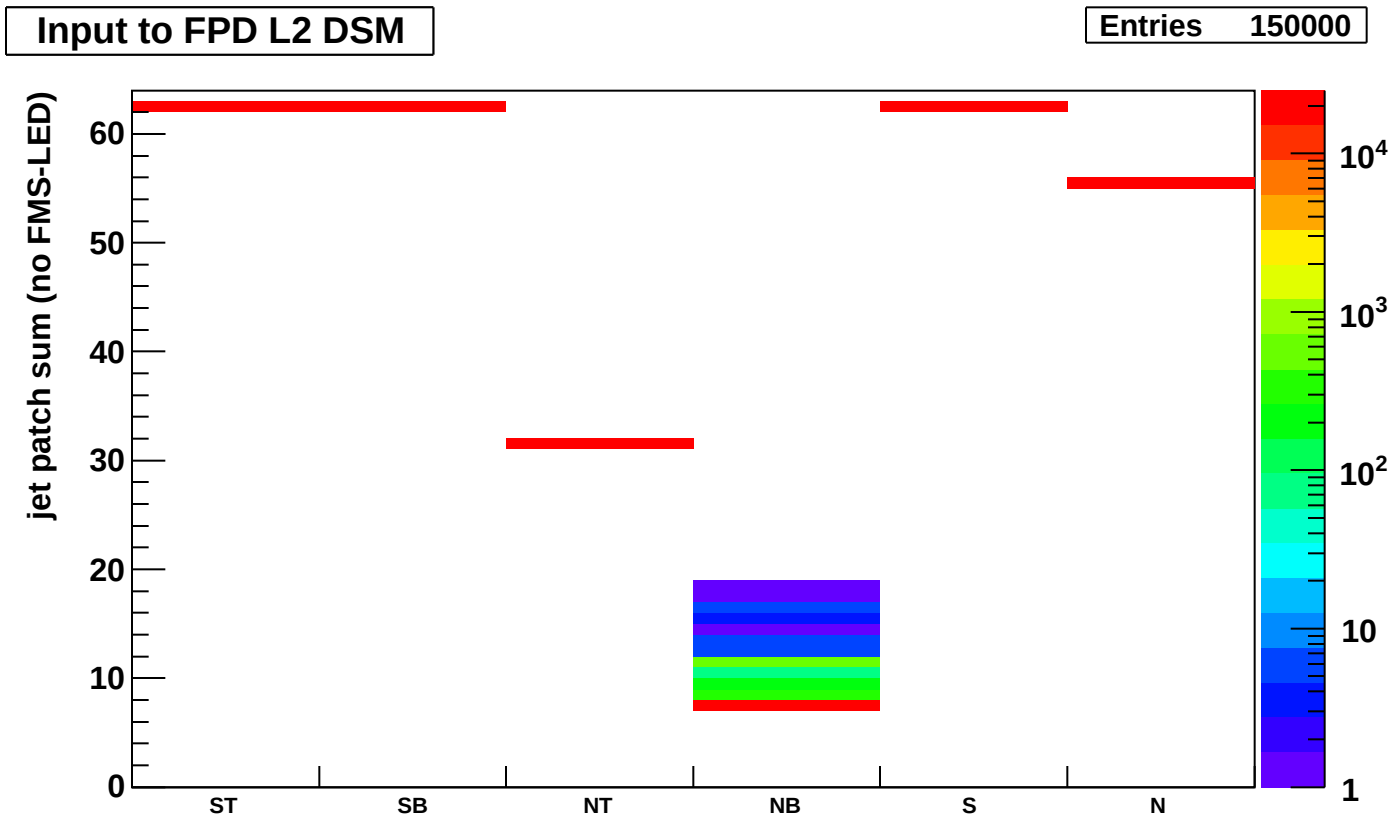

Input to FPD L2 DSM
Entries 251087
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

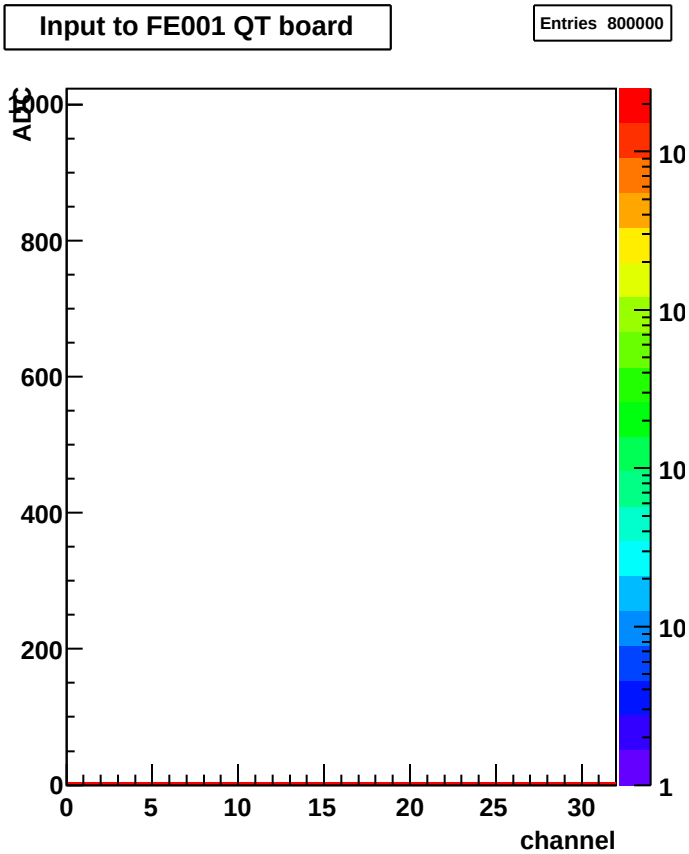

Input to FPD L2 DSM
Entries 75000
CL bits
25000
25000
25000
SMALL
LARGE-S
LARGE-N

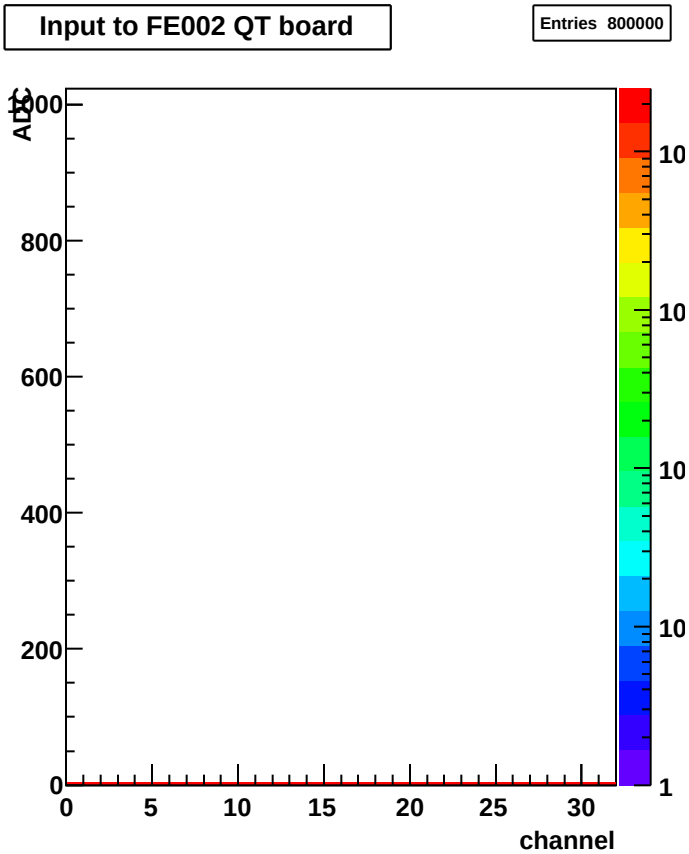

Input to FPD L2 DSM
Entries 75000
CL bits - simulated
25000
25000
25000
SMALL
LARGE-S
LARGE-N

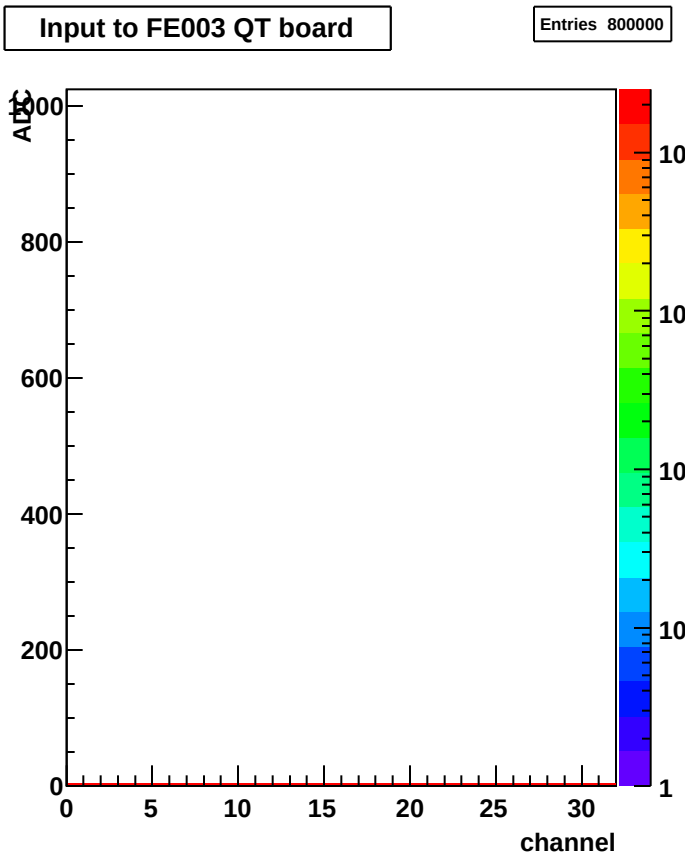

Input to FPD L2 DSM
Entries 75000
HT bits
25000
25000
25000
SMALL
LARGE-S
LARGE-N

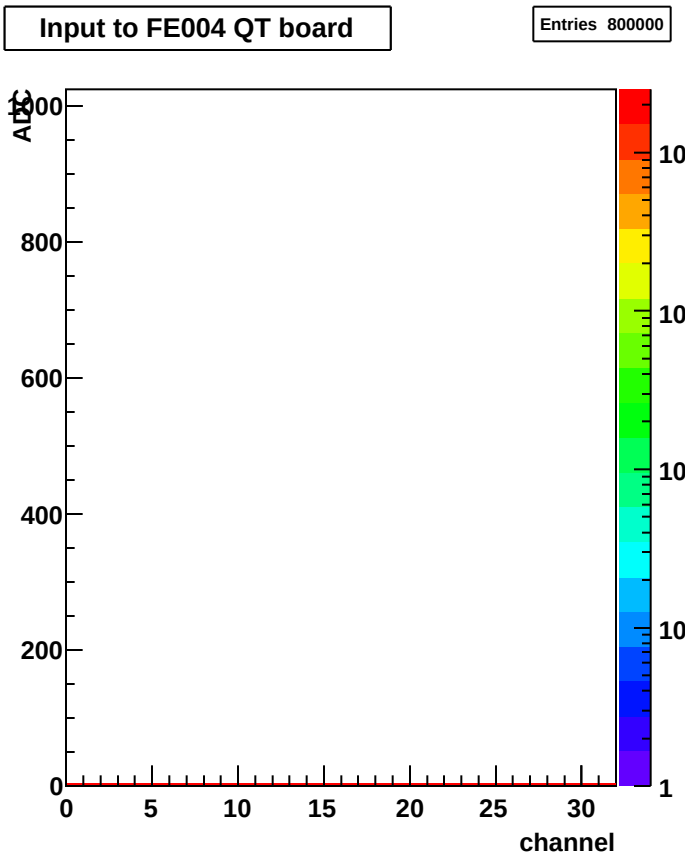

Input to FPD L2 DSM
Entries 75000
HT bits - simulated
25000
25000
25000
SMALL
LARGE-S
LARGE-N

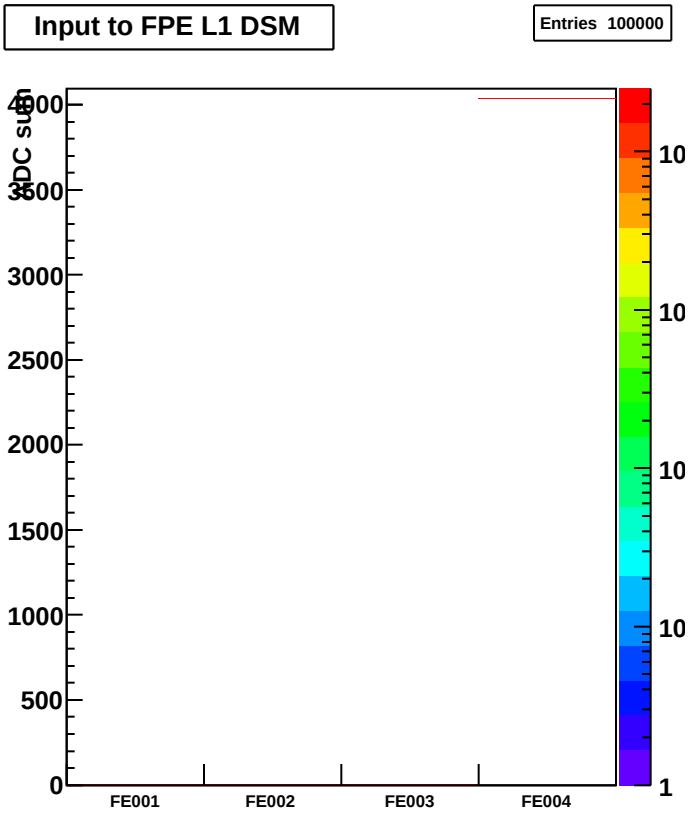

Input to FPD L2 DSM
Entries 150000
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

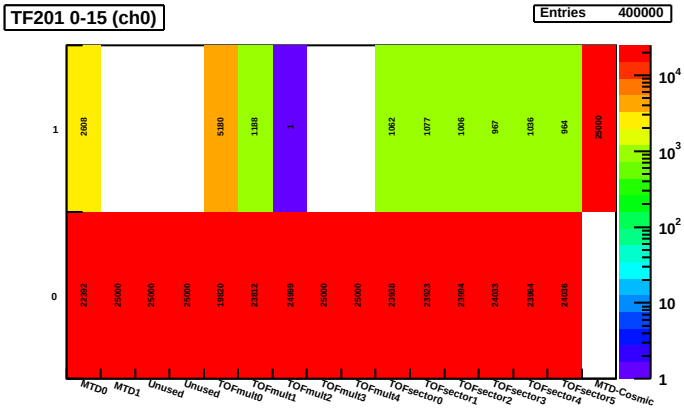

Input to FE001 QT board
Entries 800000
ADC
channel

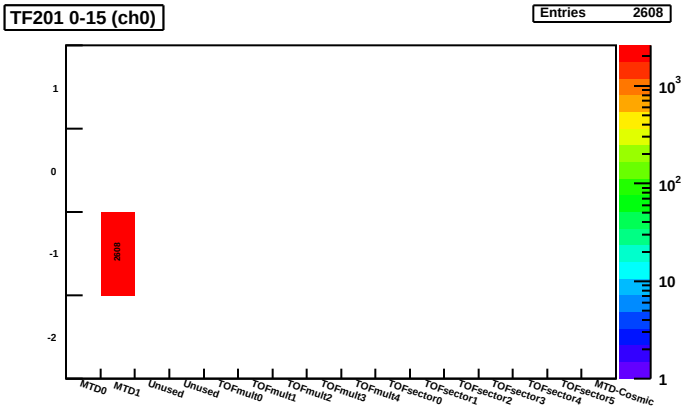

Input to FE002 QT board
Entries 800000
ADC
channel

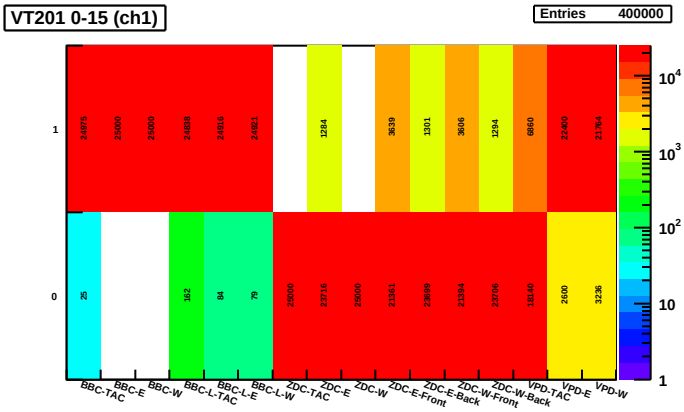

Input to FE003 QT board
Entries 800000
ADC
channel

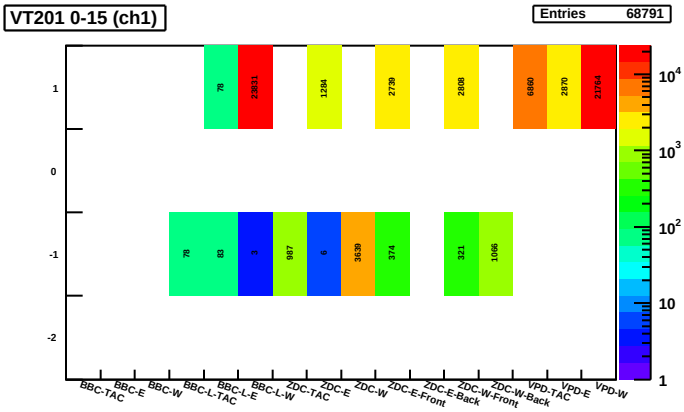

Input to FE004 QT board
Entries 800000
ADC
channel


Input to FPE L1 DSM
Entries 100000
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 400000
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2608
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 400000
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 68791
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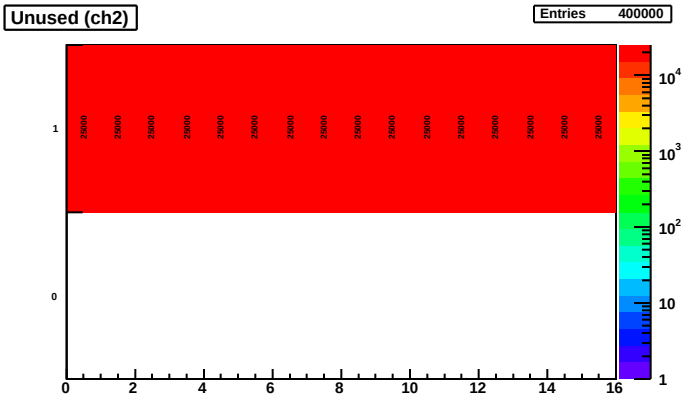
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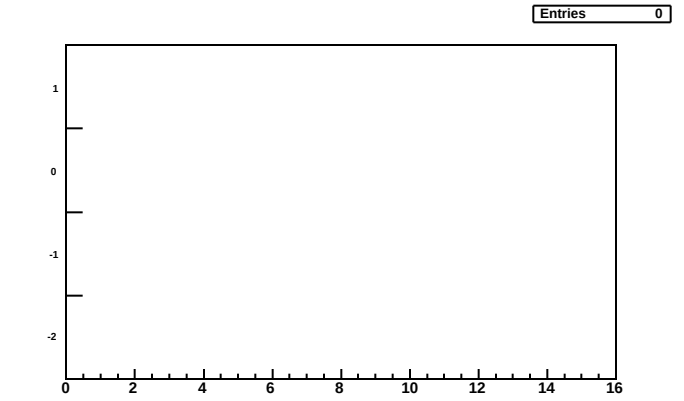
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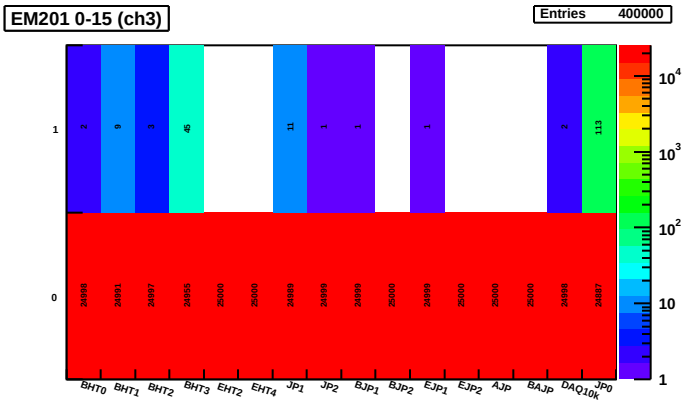
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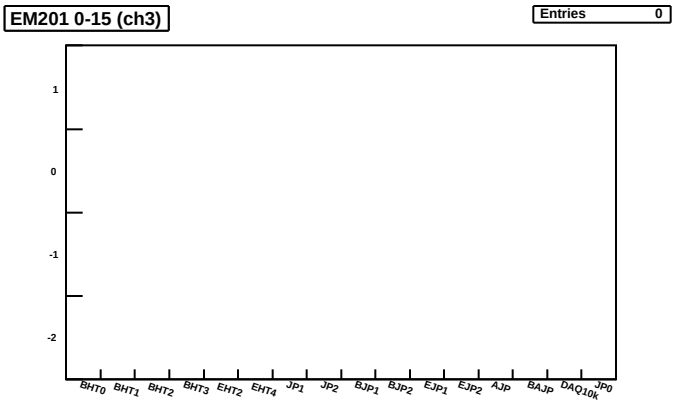
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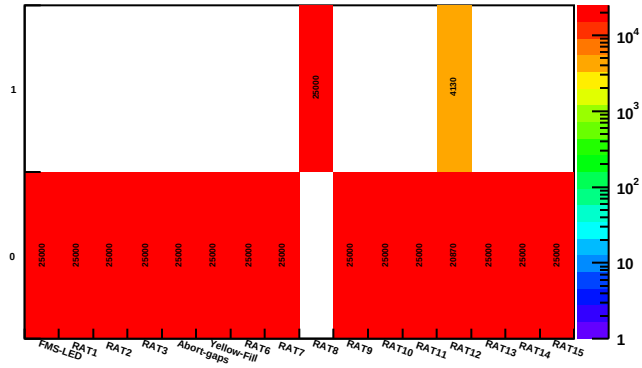
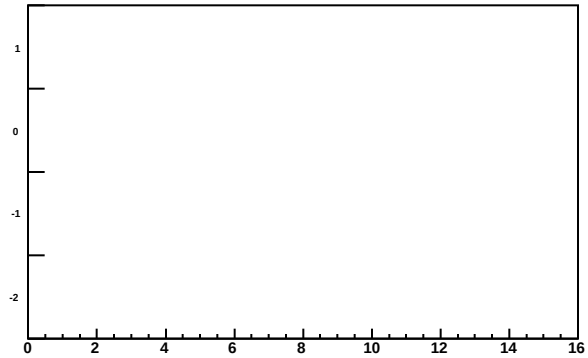
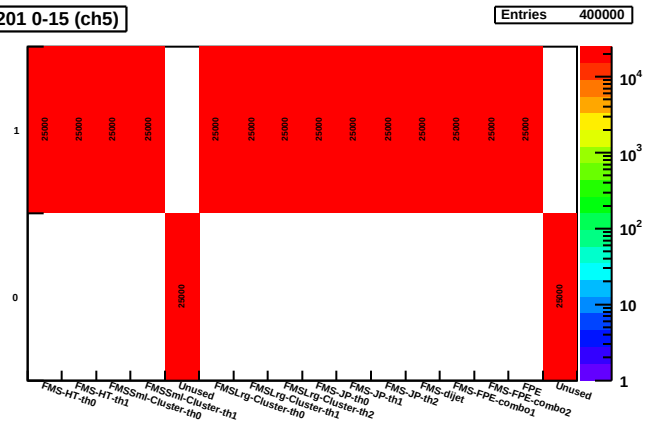
RAT board (ch4)

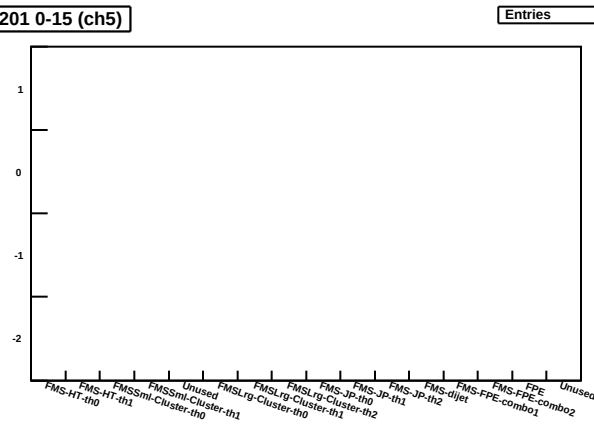




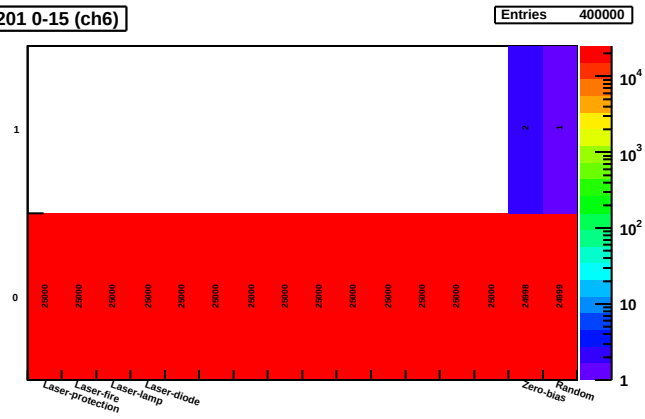
FP201 0-15 (ch5)

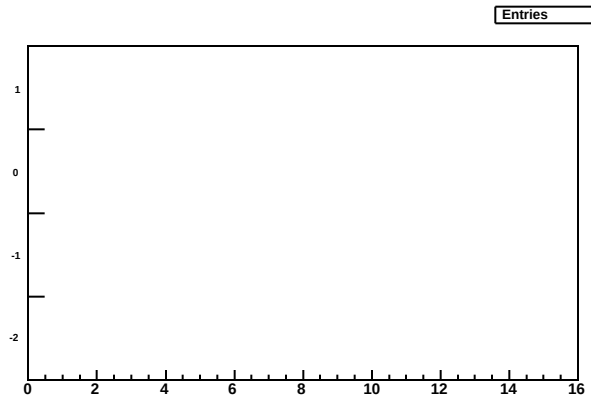
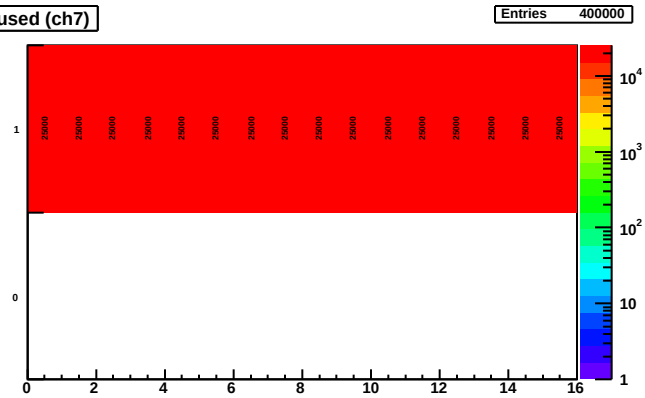
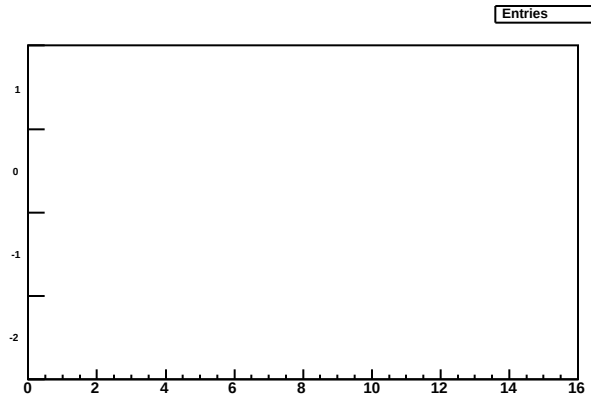


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)