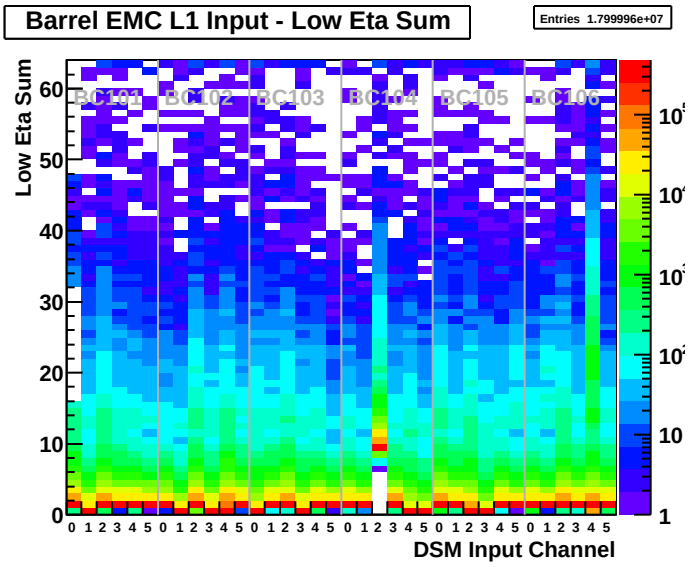
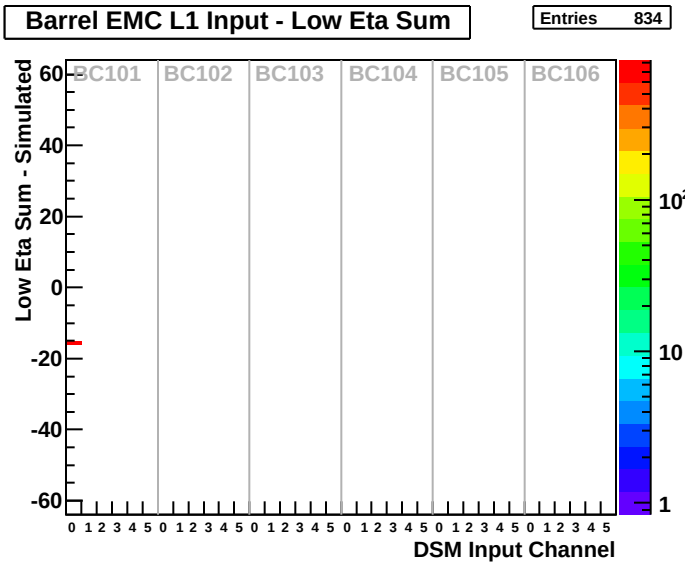
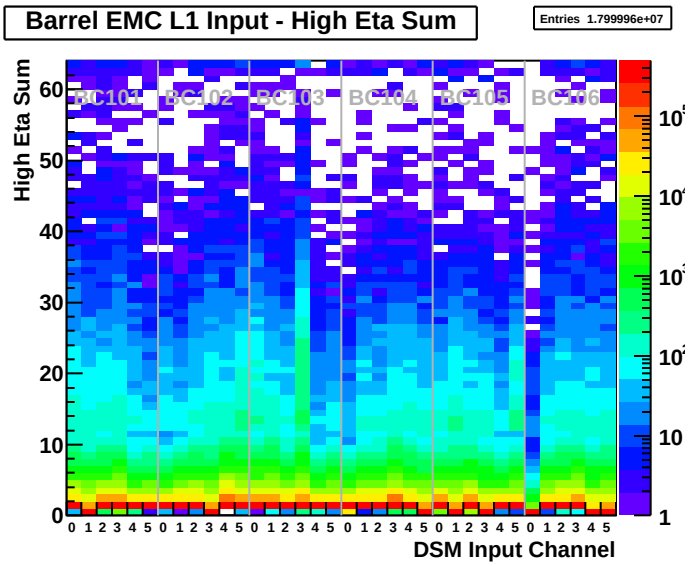
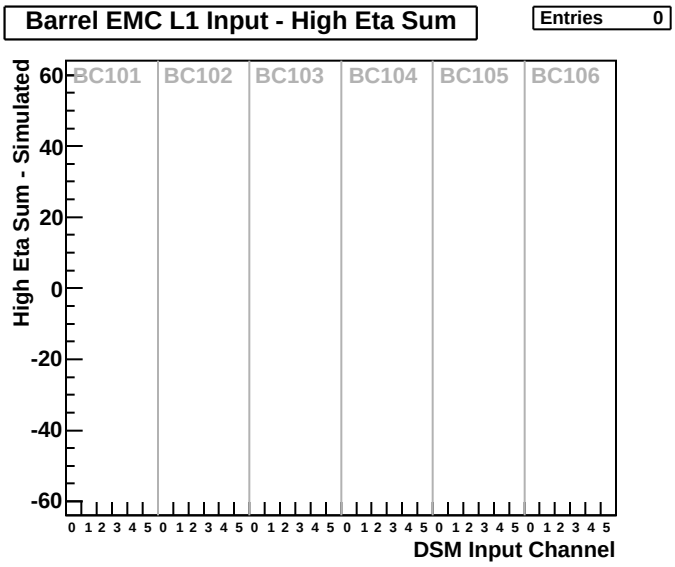
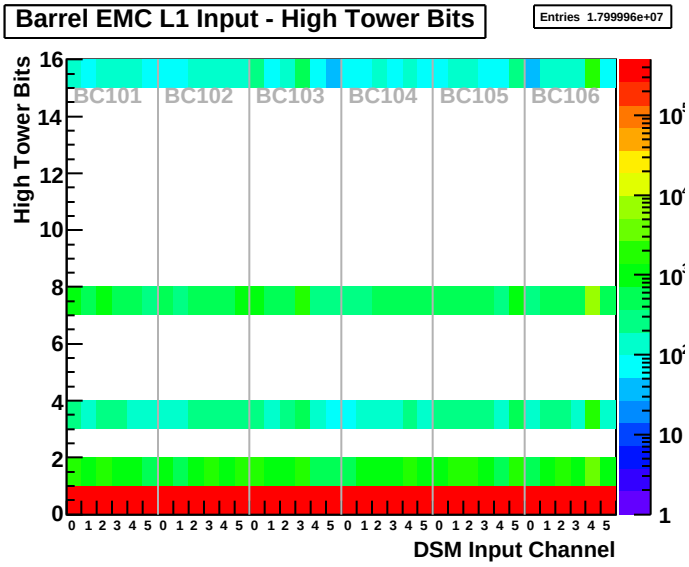
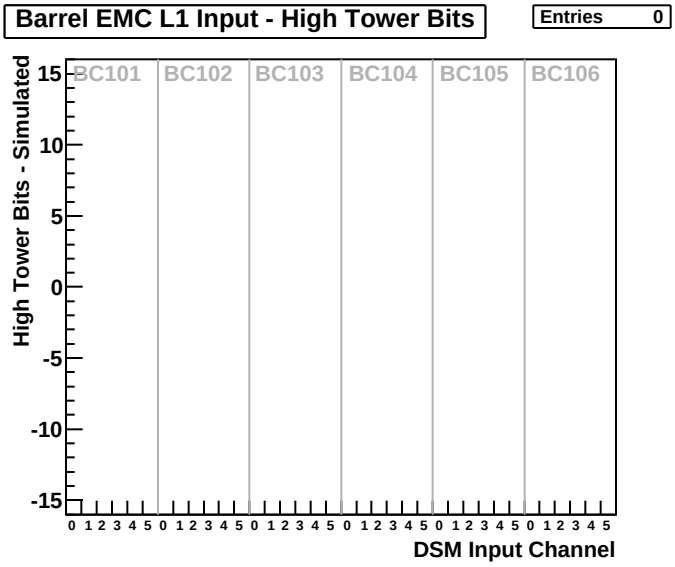

Barrel EMC L1 Input - Low Eta Sum
Entries 1.799996e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

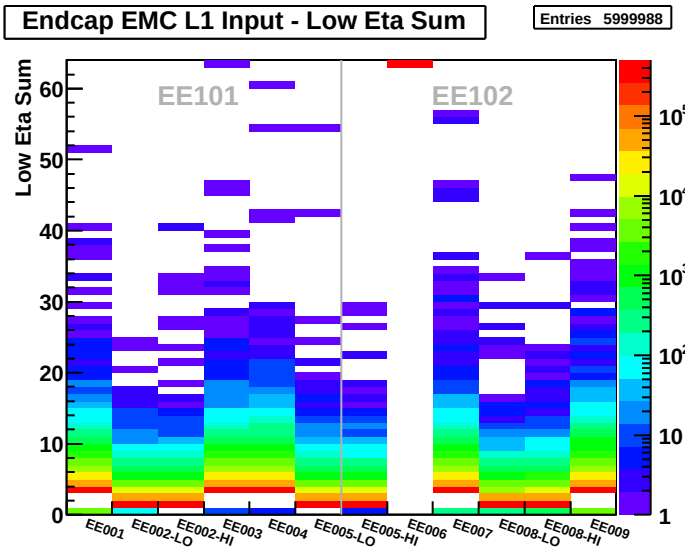

Barrel EMC L1 Input - Low Eta Sum
Entries 834
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

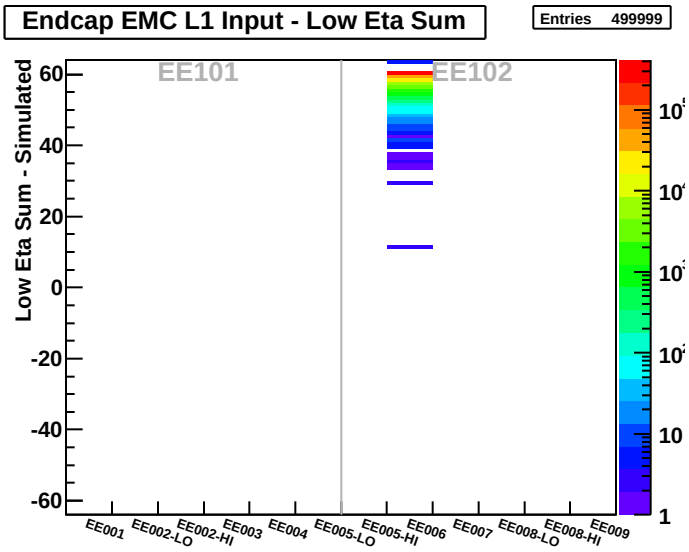

Barrel EMC L1 Input - High Eta Sum
Entries 1.799996e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

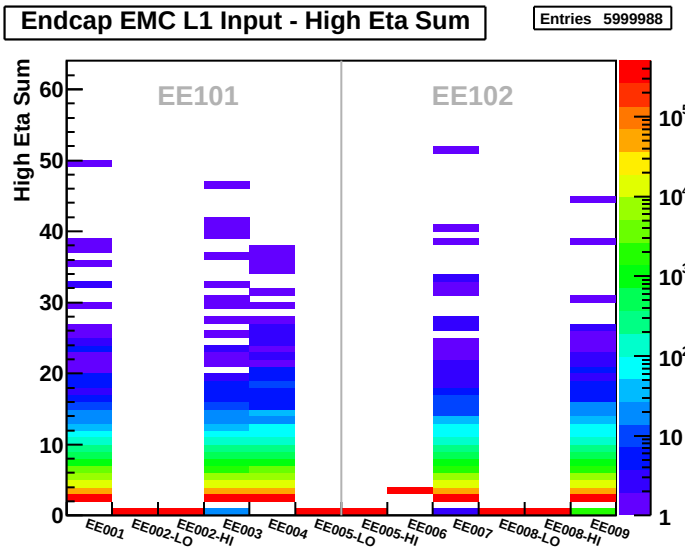

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

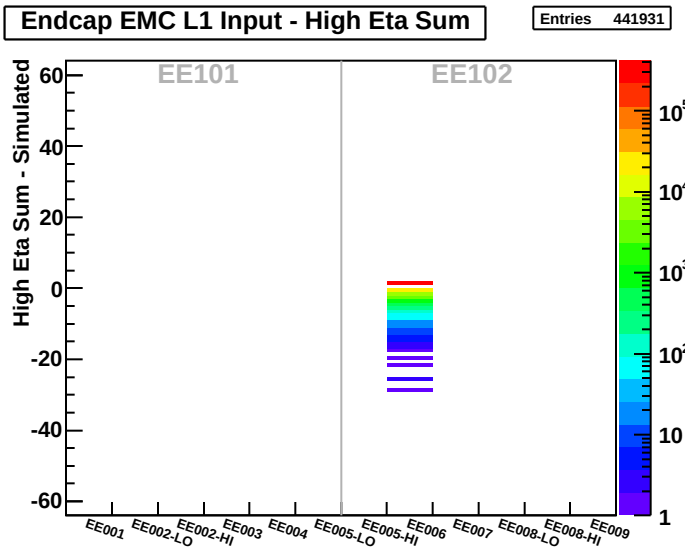

Barrel EMC L1 Input - High Tower Bits
Entries 1.799996e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

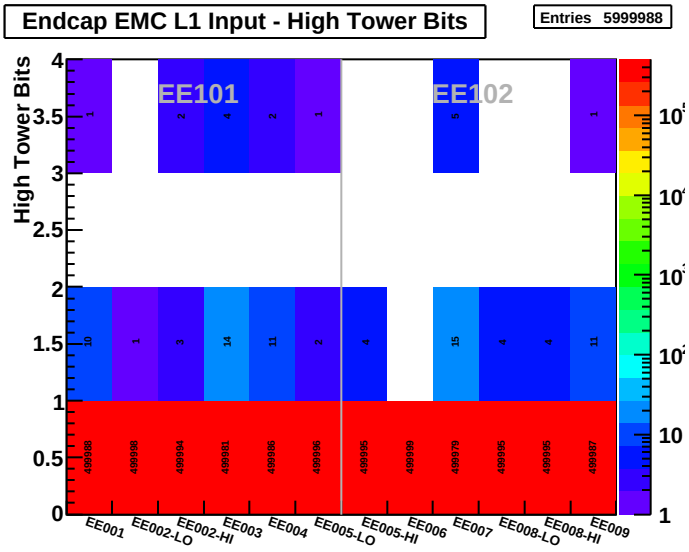

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

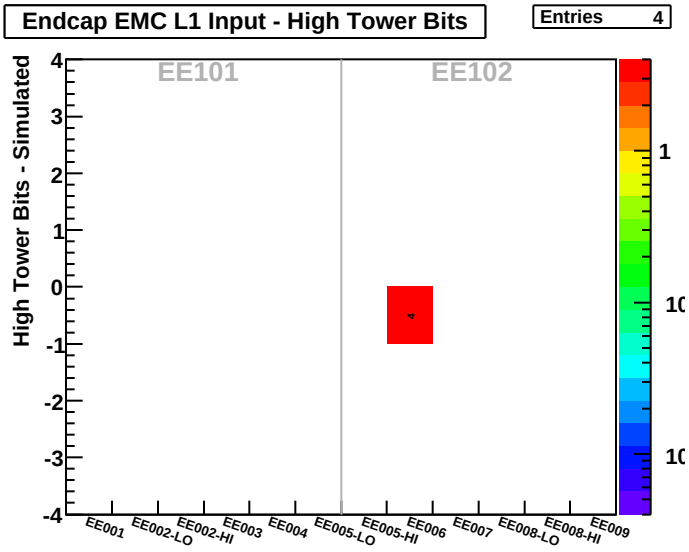

Endcap EMC L1 Input - Low Eta Sum
Entries 5999988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

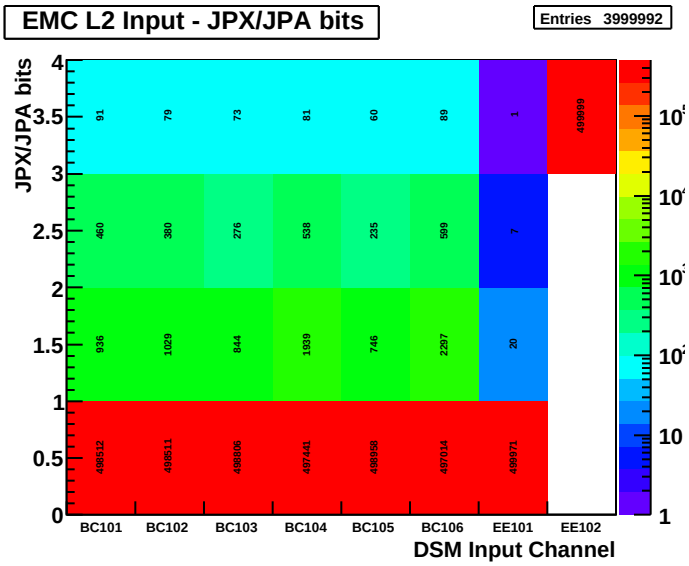

Endcap EMC L1 Input - Low Eta Sum
Entries 499999
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

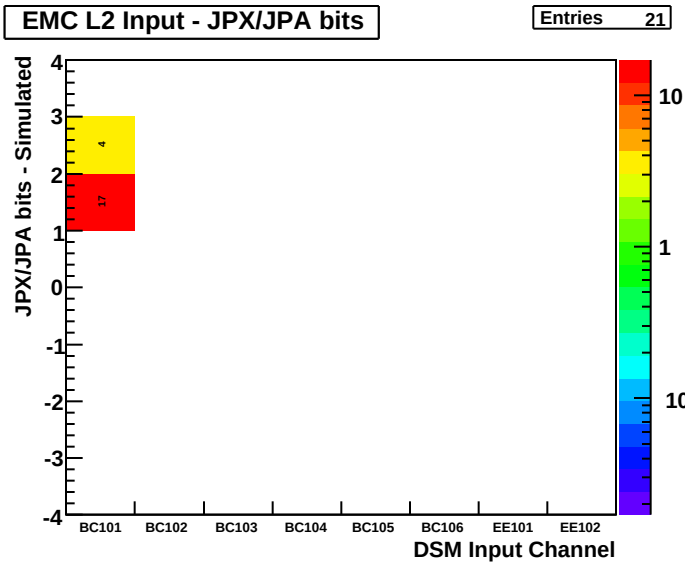

Endcap EMC L1 Input - High Eta Sum
Entries 5999988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

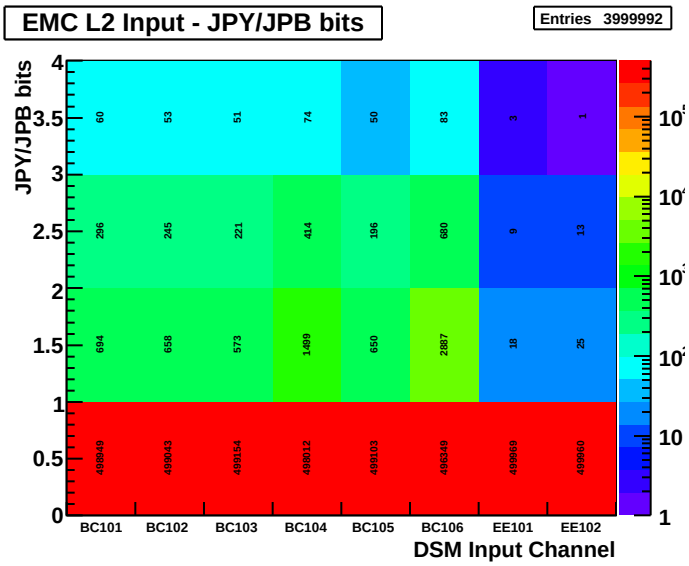

Endcap EMC L1 Input - High Eta Sum
Entries 441931
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

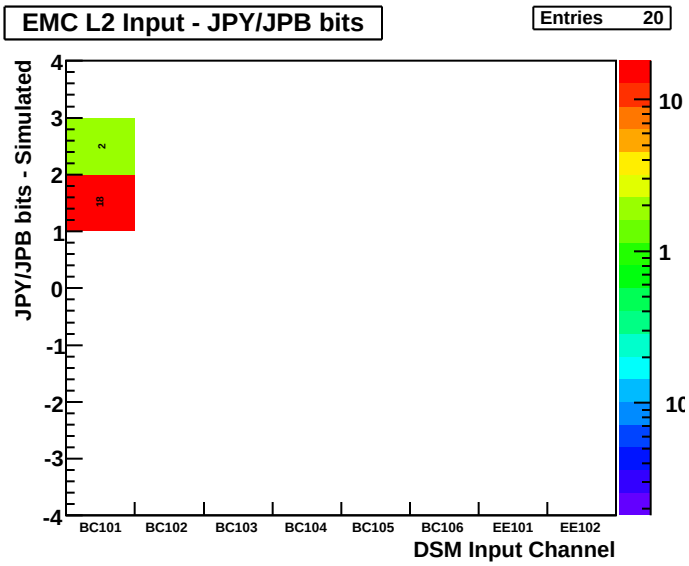

Endcap EMC L1 Input - High Tower Bits
Entries 5999988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

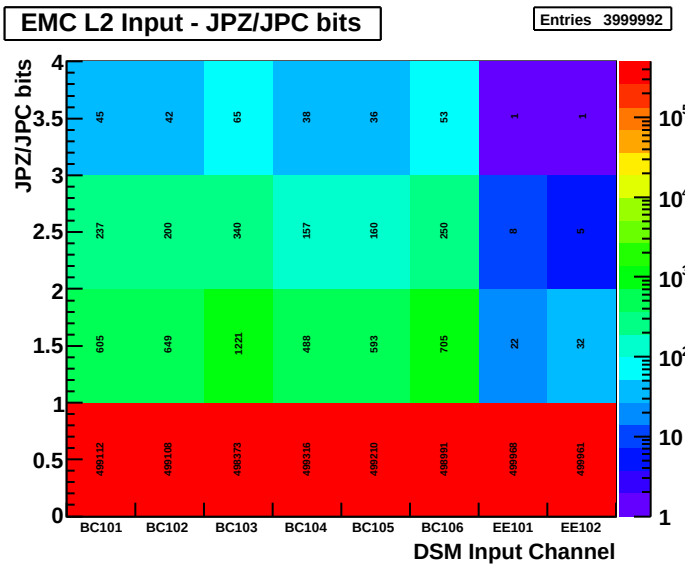

Endcap EMC L1 Input - High Tower Bits
Entries 4
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

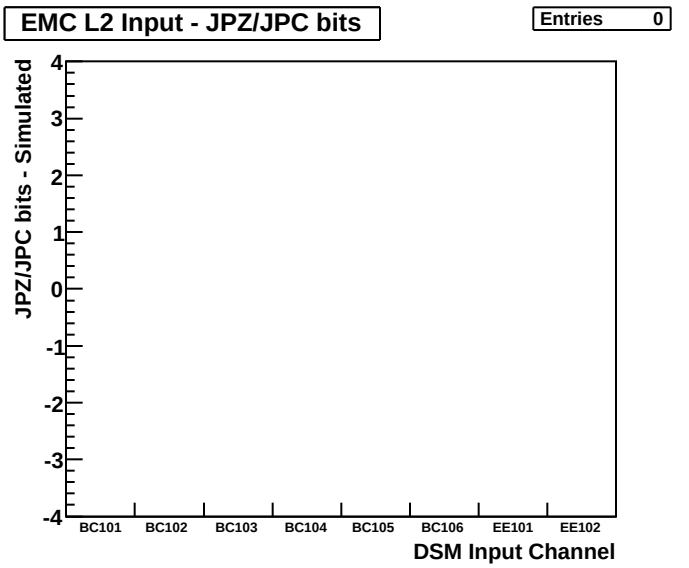

EMC L2 Input - JPX/JPA bits
Entries 3999992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
91 79 73 81 60 89 1 499999
460 380 276 538 235 599 7
936 1029 844 1939 746 2297 20
498512 498511 498806 497441 498958 497014 499971

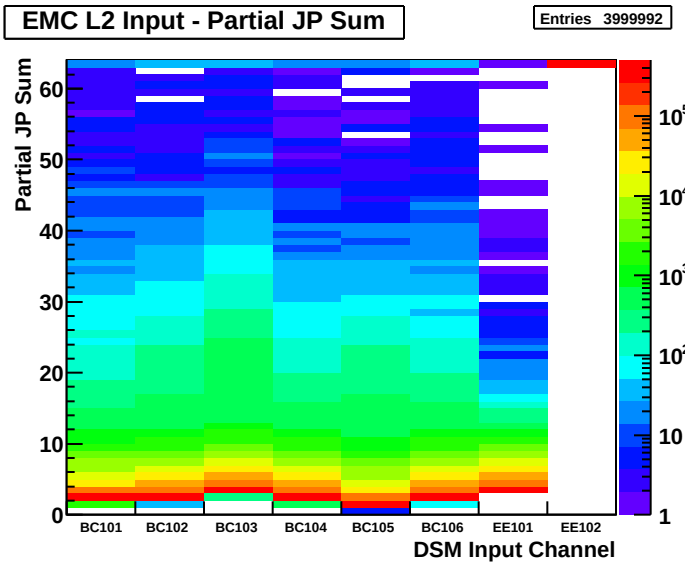

EMC L2 Input - JPX/JPA bits
Entries 21
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4
17

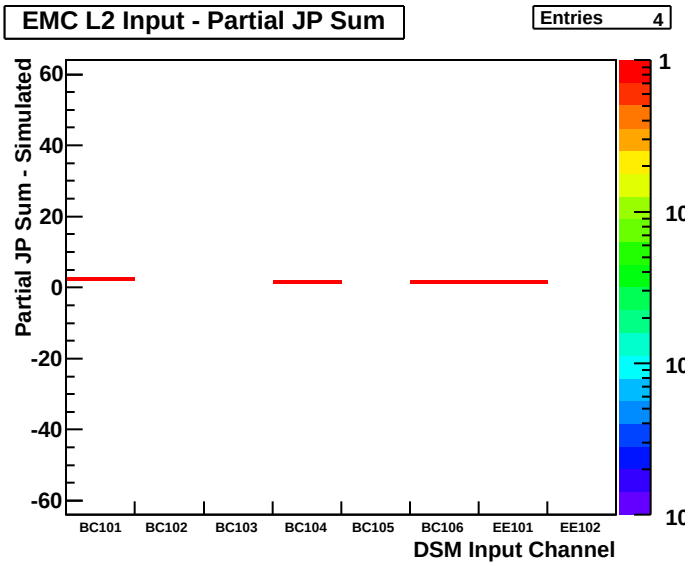

EMC L2 Input - JPY/JPB bits
Entries 3999992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
60 53 51 74 50 83 3 1
296 245 221 414 196 680 9 13
694 658 573 1499 650 2887 18 25
498849 499043 499154 498012 499103 496349 499969 499960

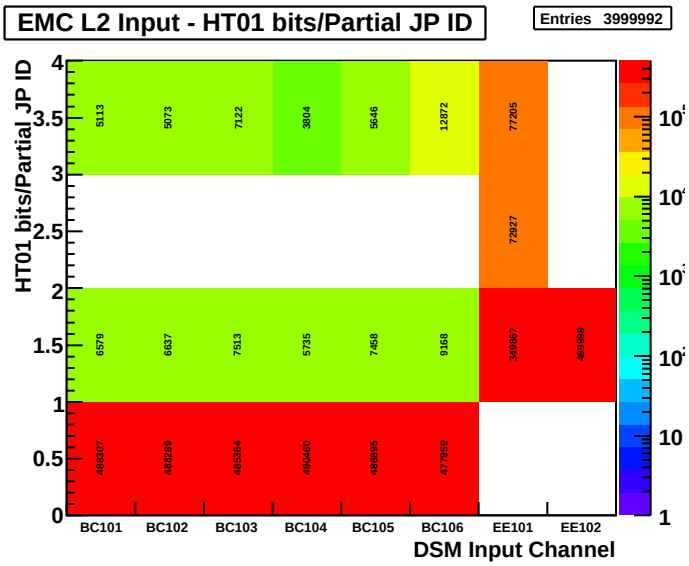

EMC L2 Input - JPY/JPB bits
Entries 20
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2
18

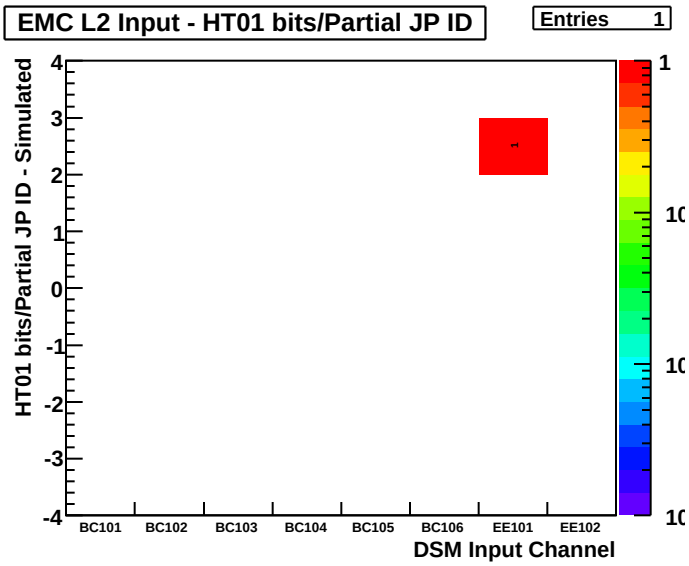

EMC L2 Input - JPZ/JPC bits
Entries 3999992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
45 42 65 38 36 53 1 1
237 200 340 157 160 250 8 5
605 649 1221 488 593 705 22 32
499112 499108 498373 499316 499210 498991 499968 499961

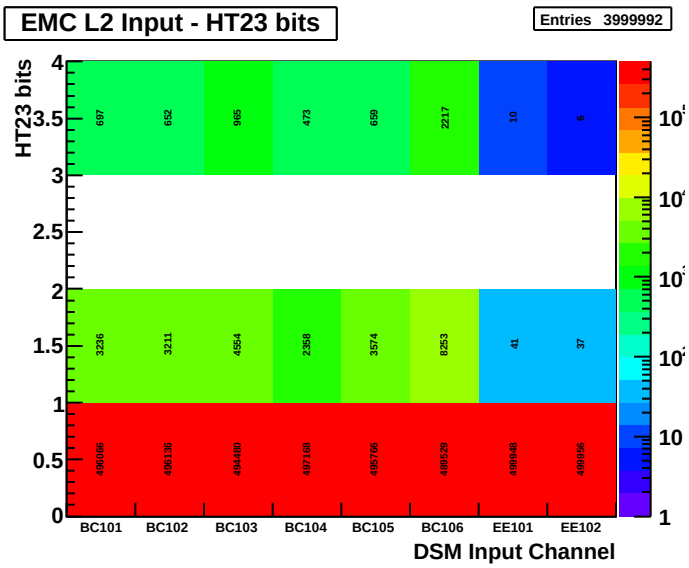

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

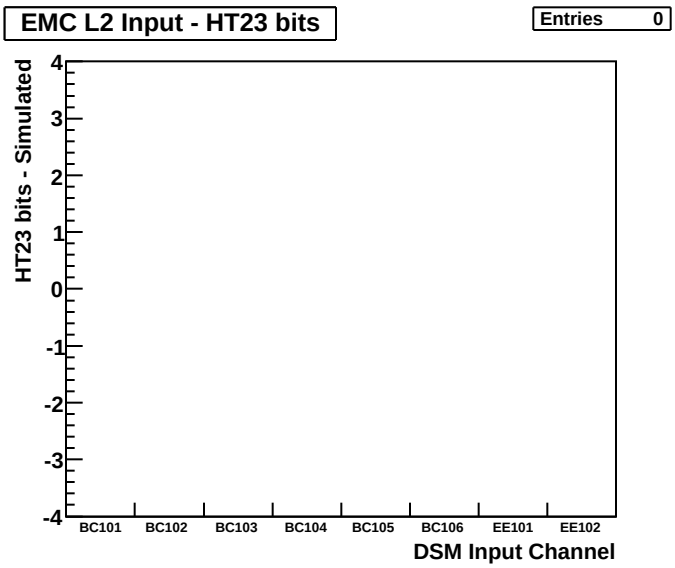

EMC L2 Input - Partial JP Sum
Entries 3999992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

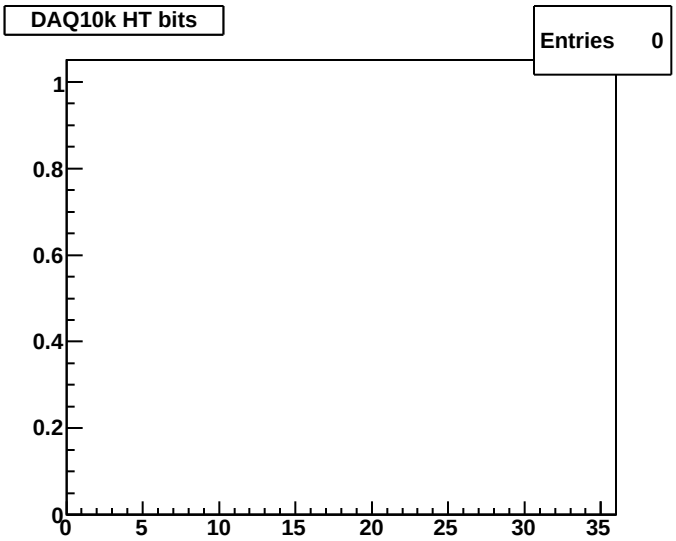

EMC L2 Input - Partial JP Sum
Entries 4
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

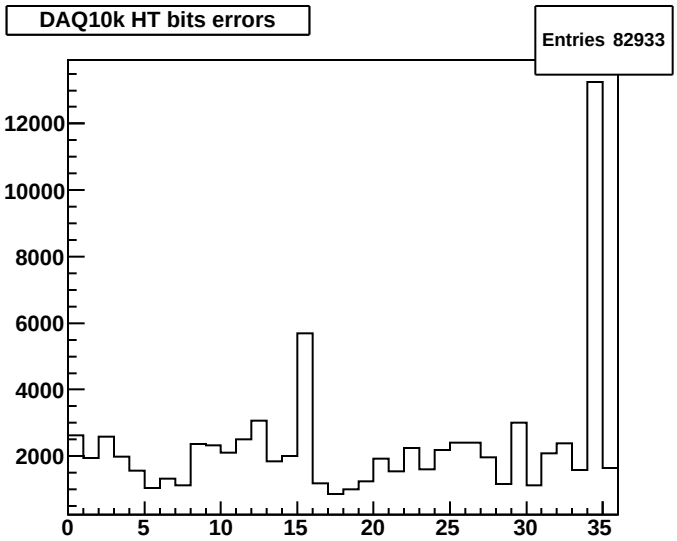

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3999992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

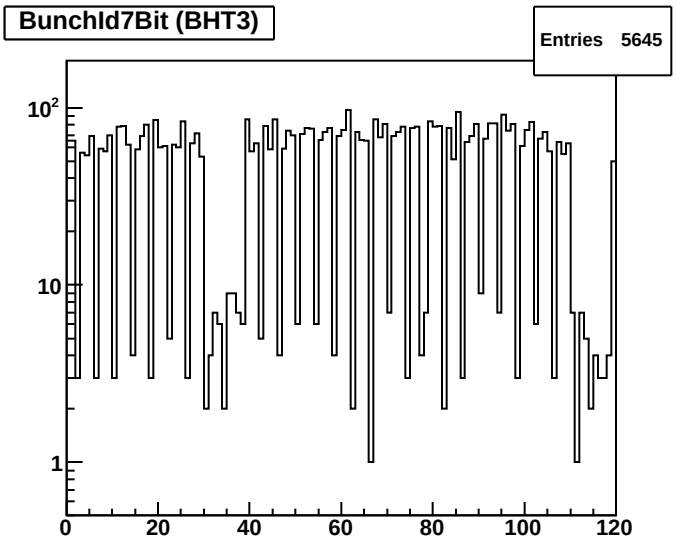

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

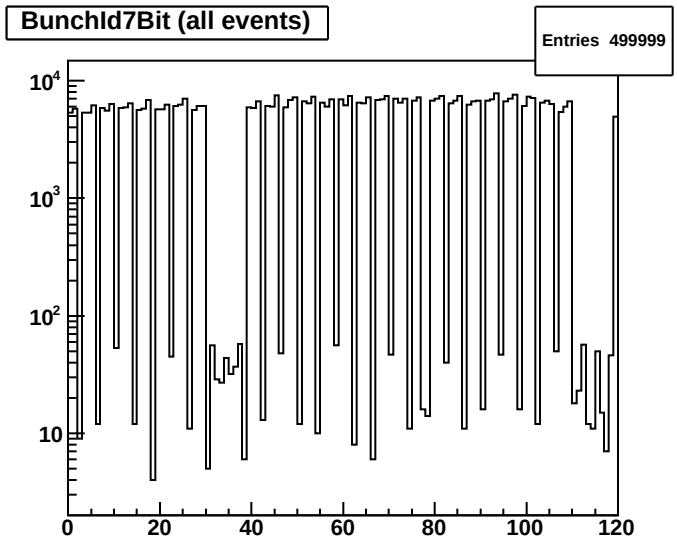

EMC L2 Input - HT23 bits
Entries 3999992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

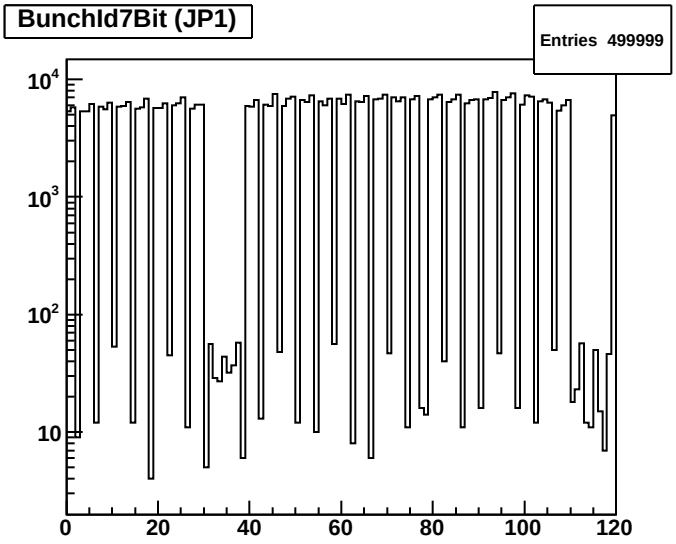

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

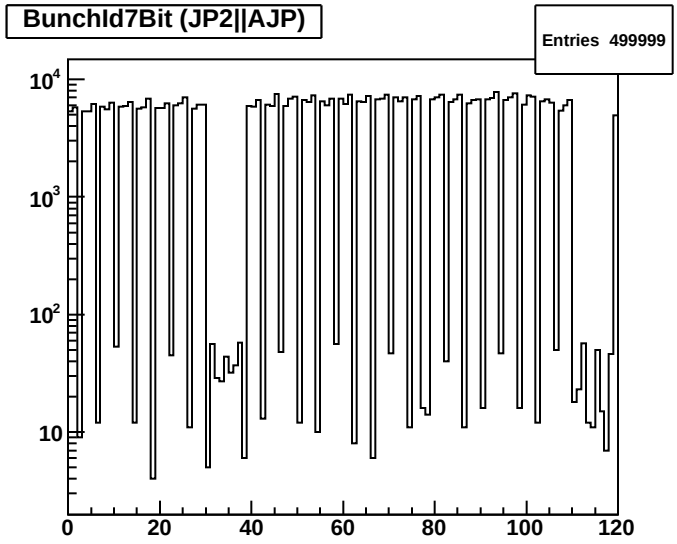

DAQ10k HT bits
Entries 0

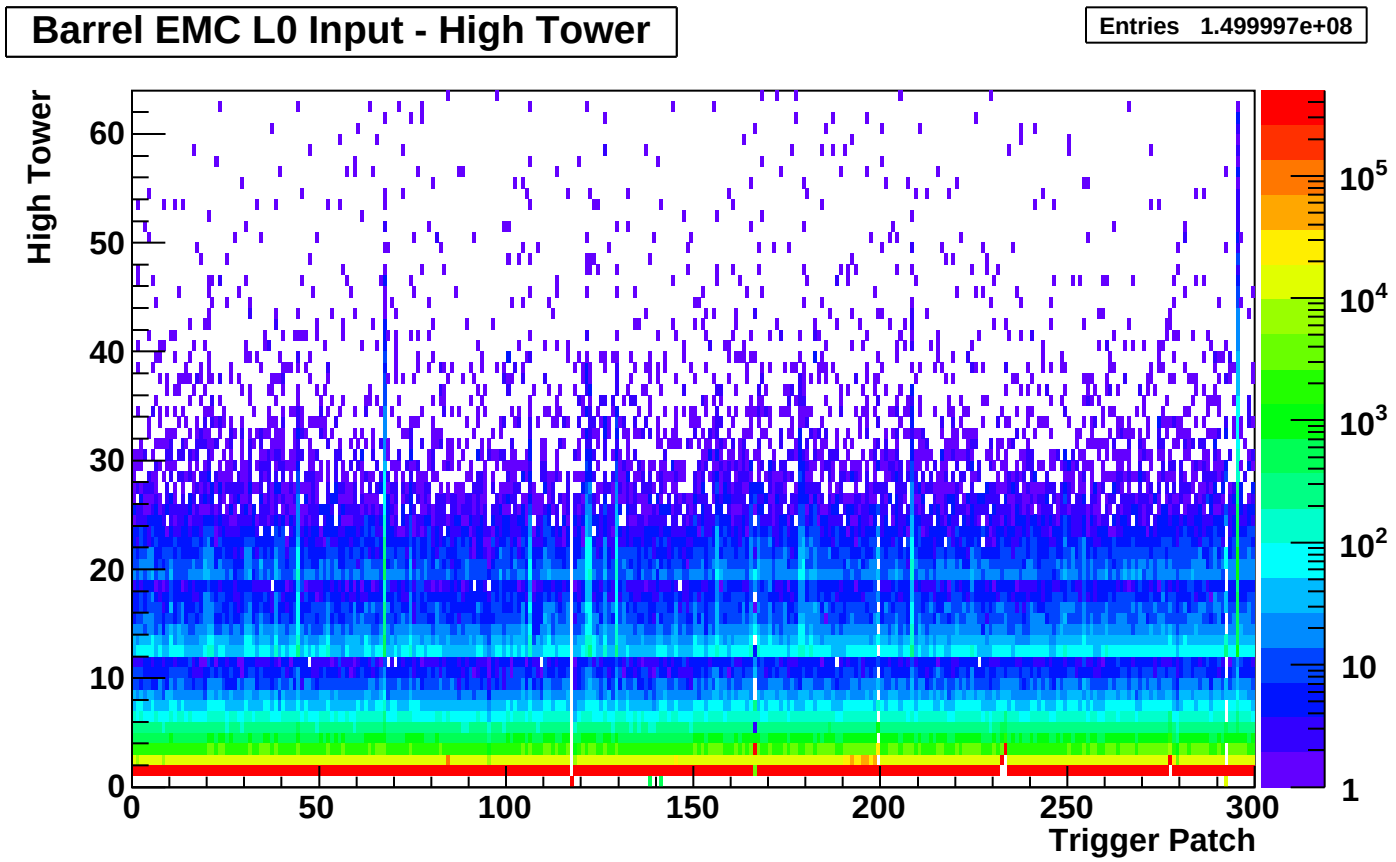

DAQ10k HT bits errors
Entries 82933

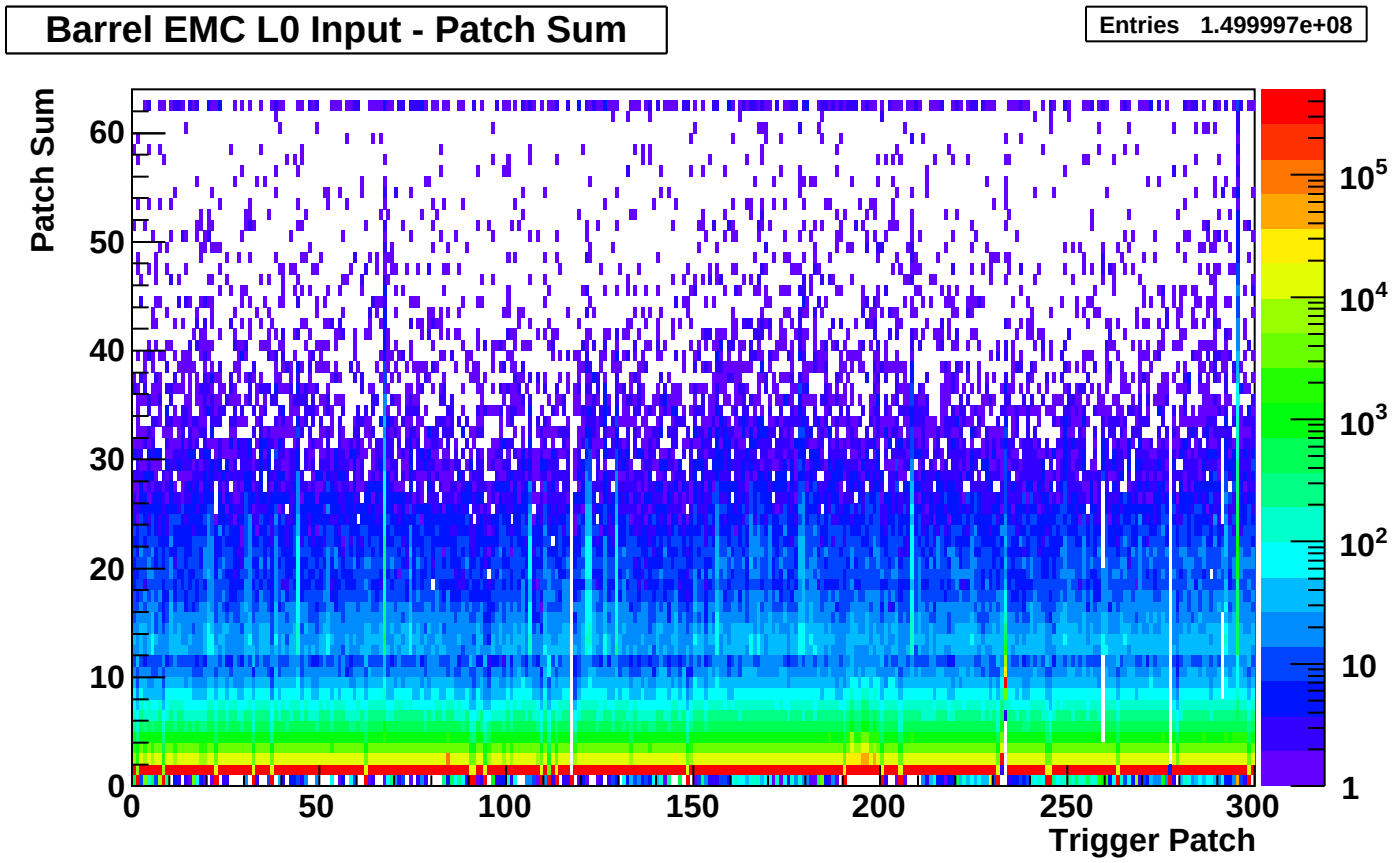

BunchId7Bit (BHT3)
Entries 5645

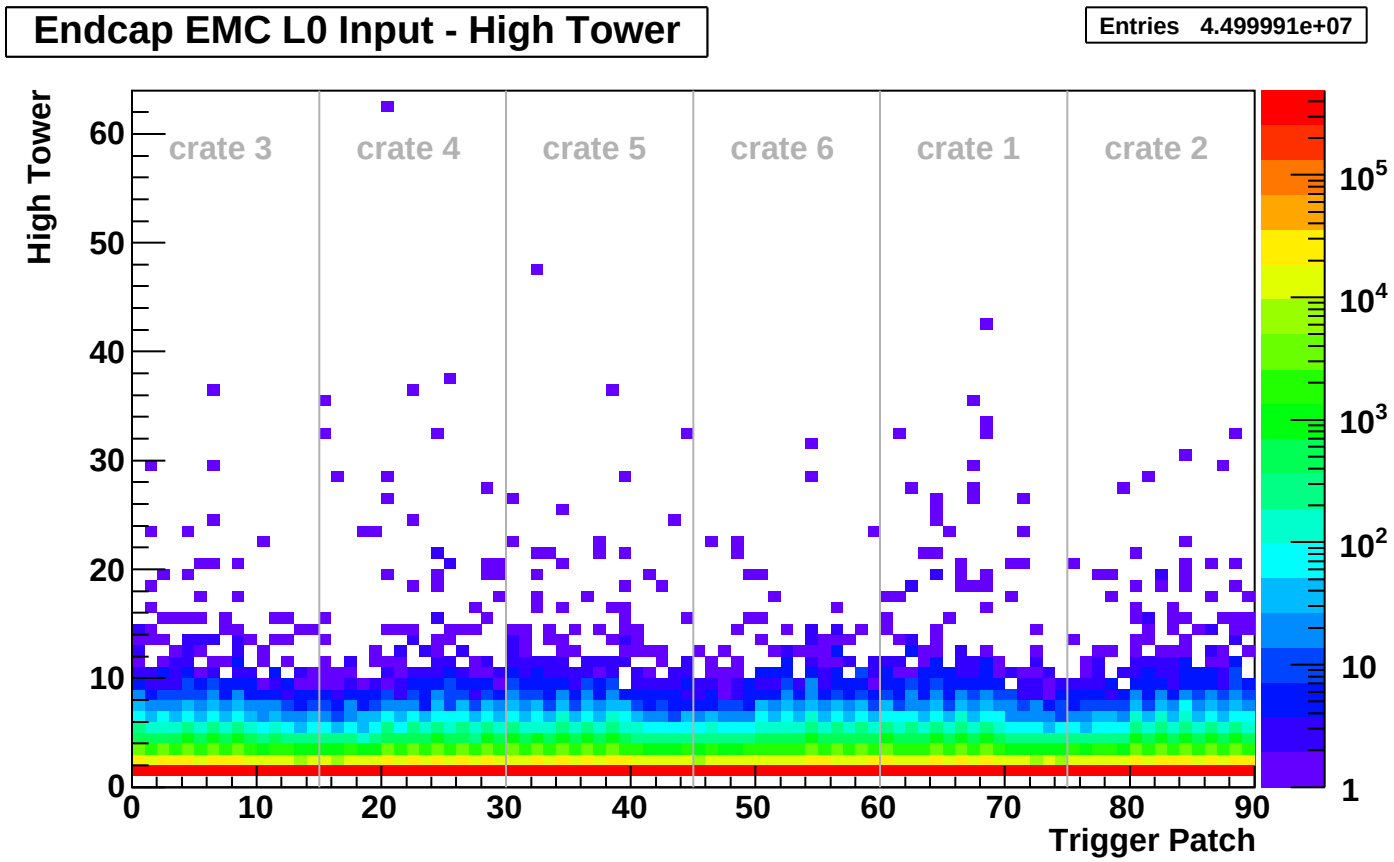

BunchId7Bit (all events)
Entries 499999

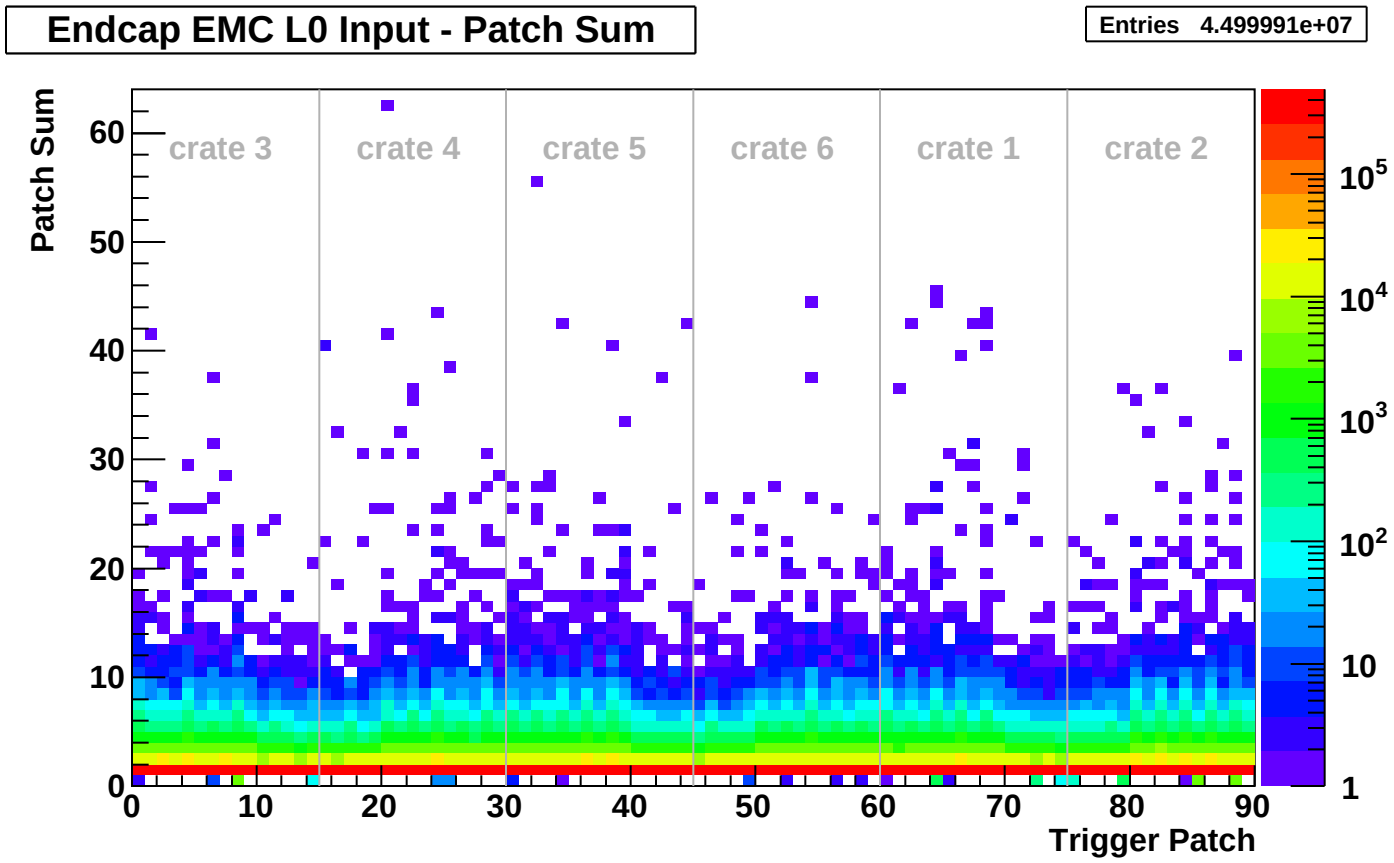

BunchId7Bit (JP1)
Entries 499999

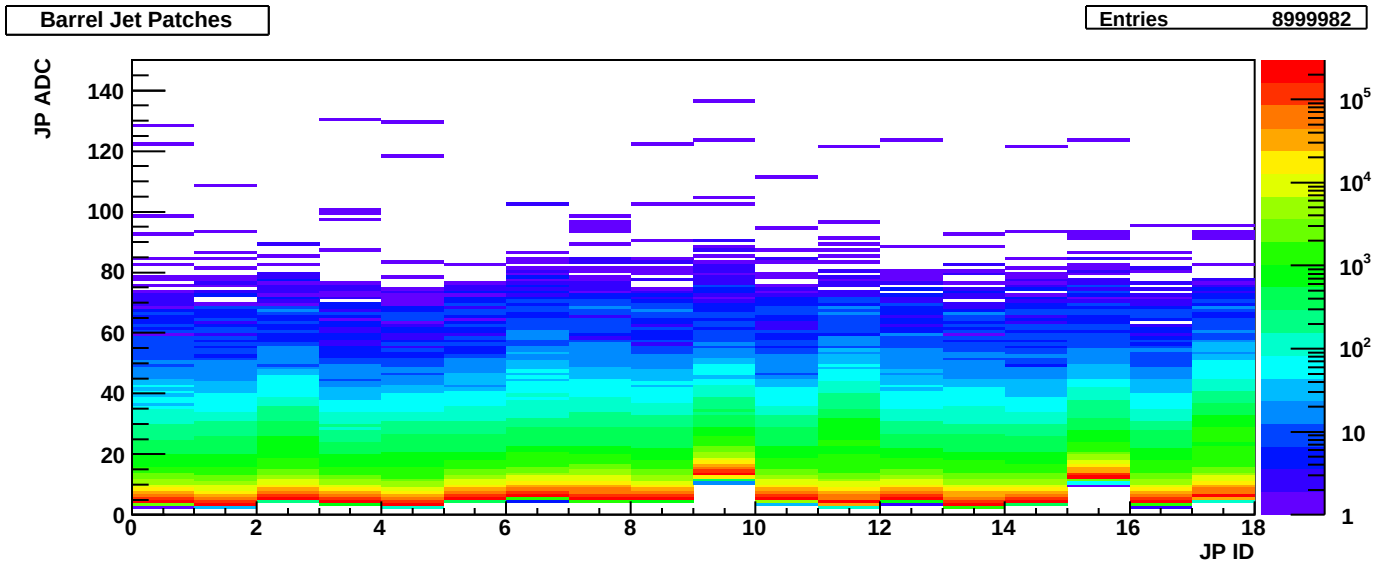

BunchId7Bit (JP2||AJP)
Entries 499999

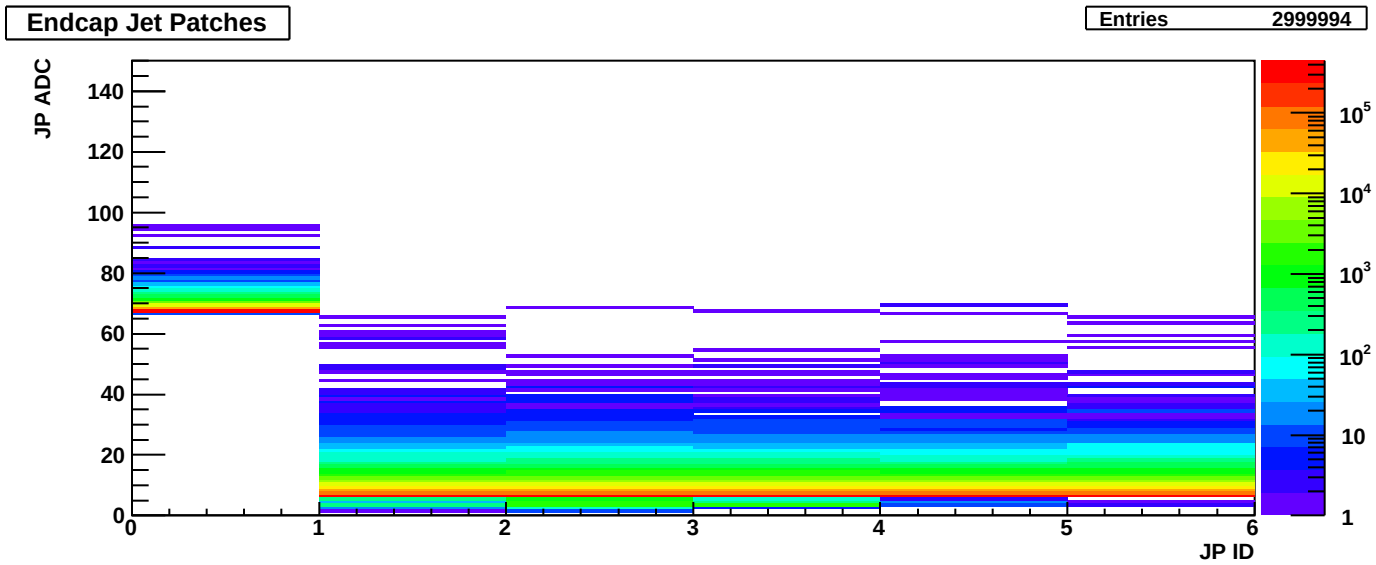

Barrel EMC L0 Input - High Tower
Entries 1.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

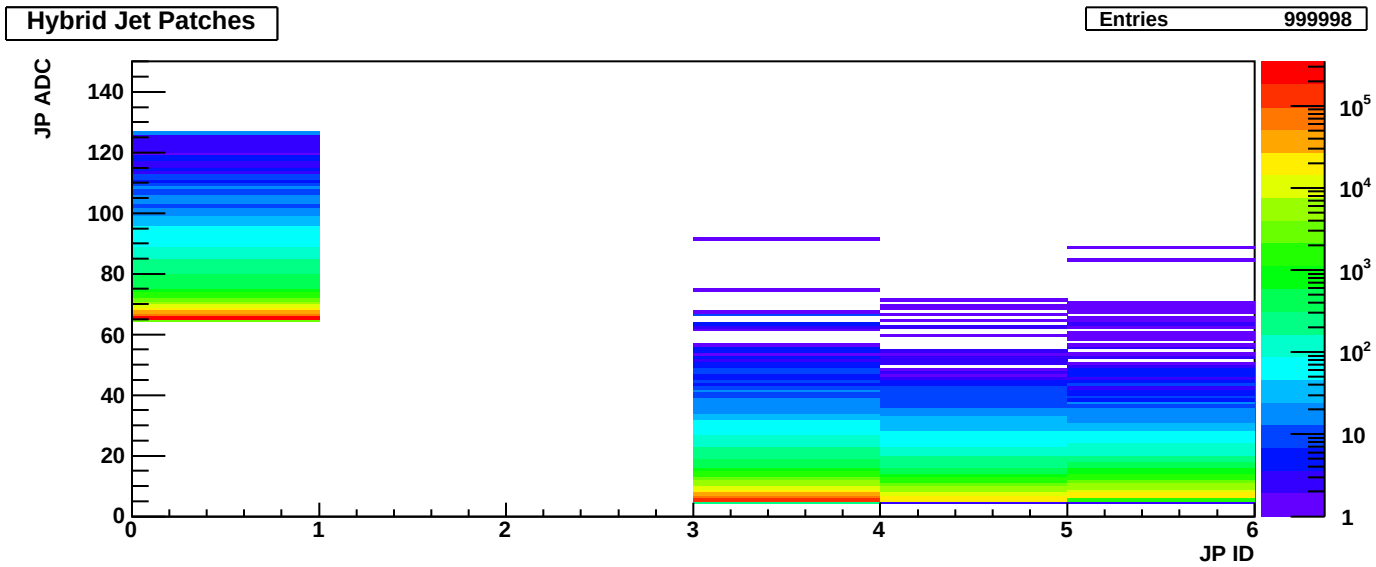

Barrel EMC L0 Input - Patch Sum
Entries 1.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

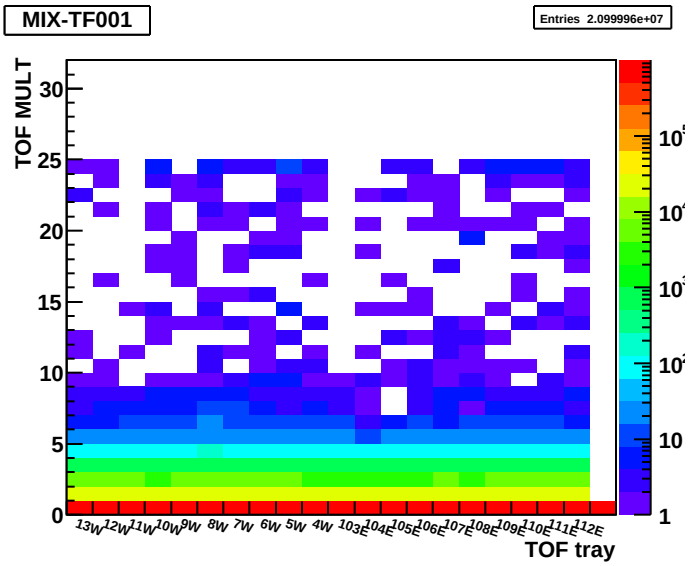

Endcap EMC L0 Input - High Tower
Entries 4.499991e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

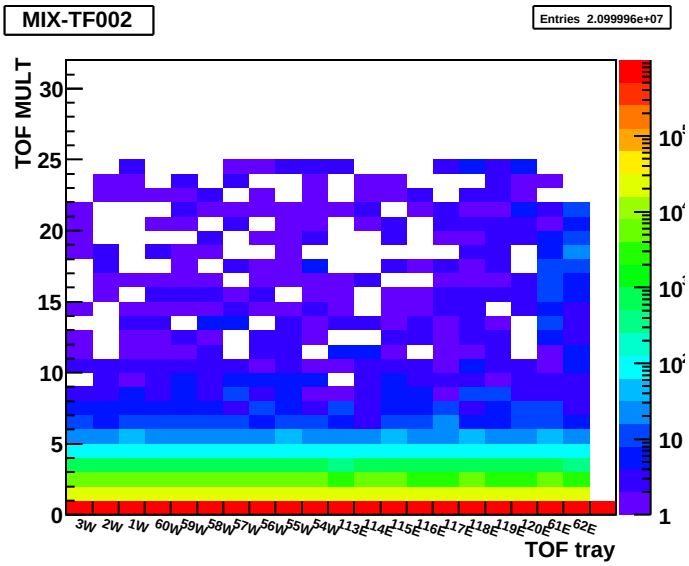

Endcap EMC L0 Input - Patch Sum
Entries 4.499991e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

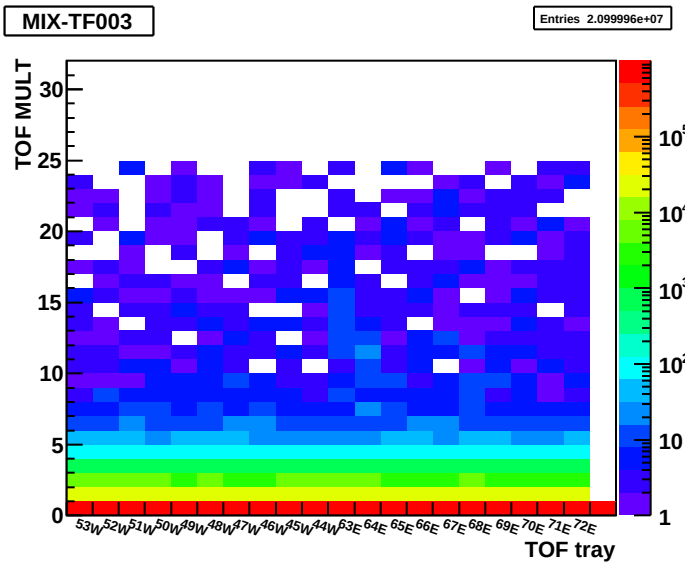

Barrel Jet Patches
Entries 8999982
JP ADC
JP ID

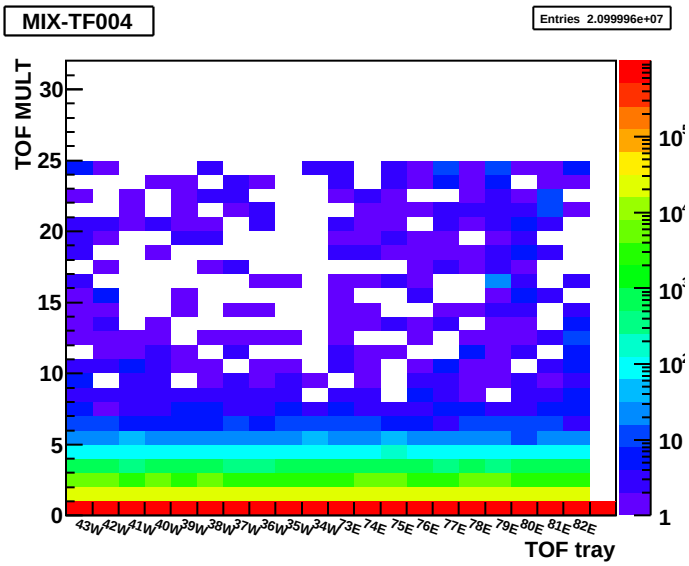

Endcap Jet Patches
Entries 2999994
JP ADC
JP ID

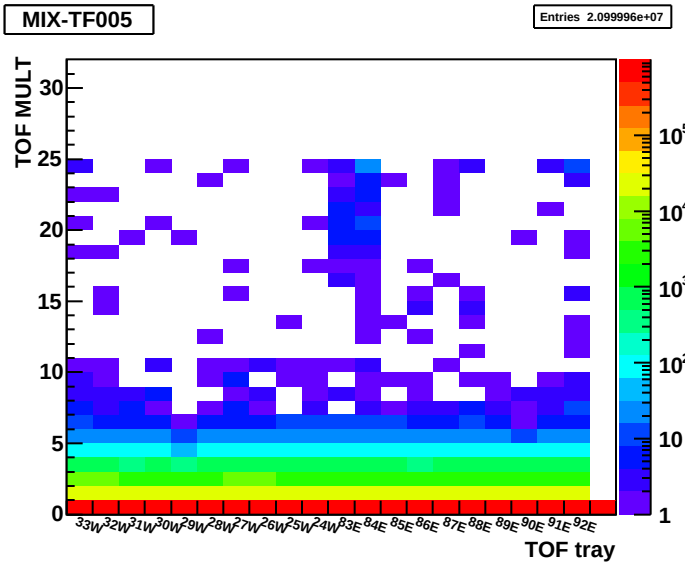

Hybrid Jet Patches
Entries 999998
JP ADC
JP ID

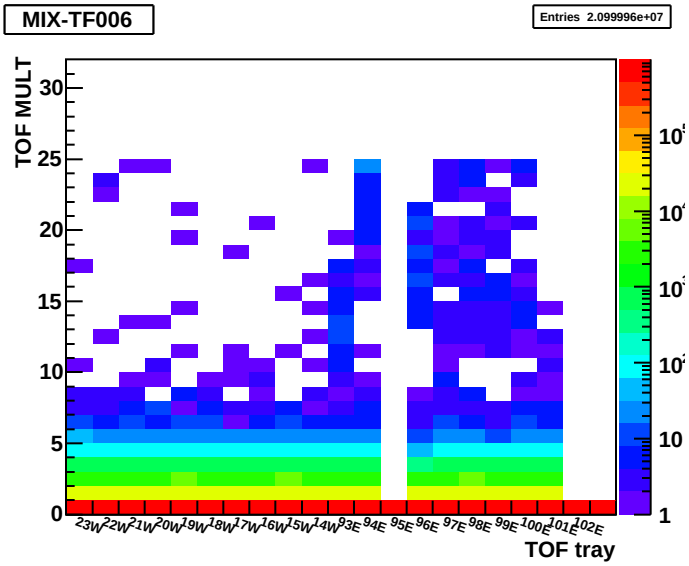

MIX-TF001
Entries 2.099996e+07
TOF MULT
TOF tray

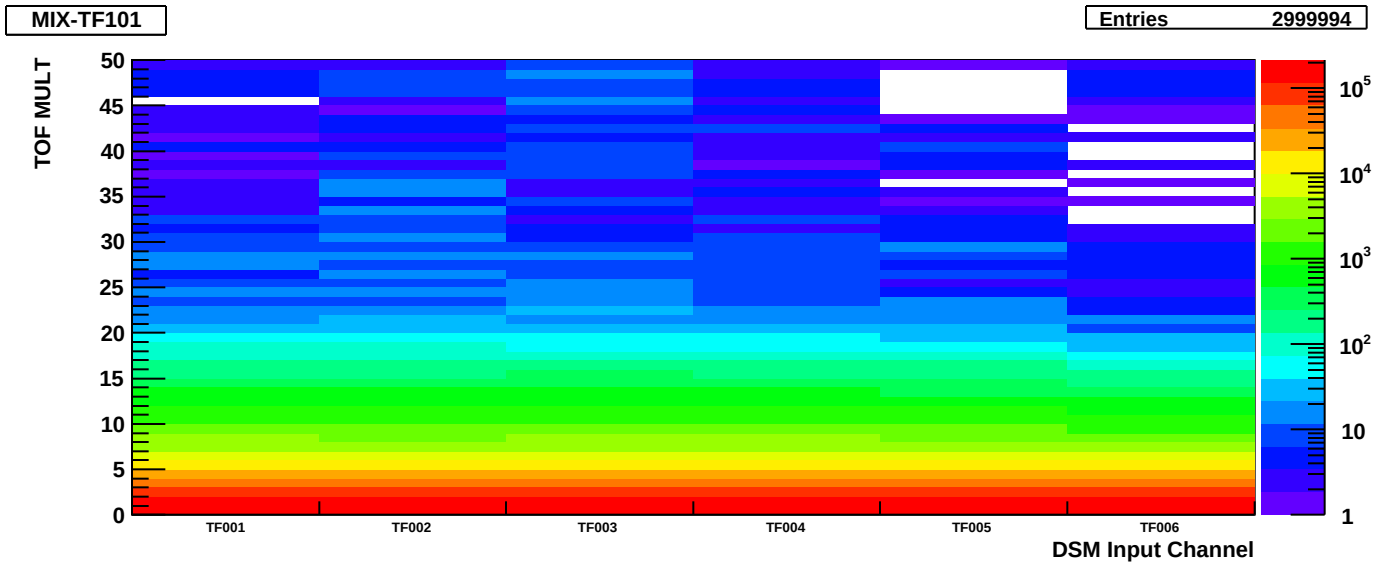

MIX-TF002
Entries 2.099996e+07
TOF MULT
TOF tray

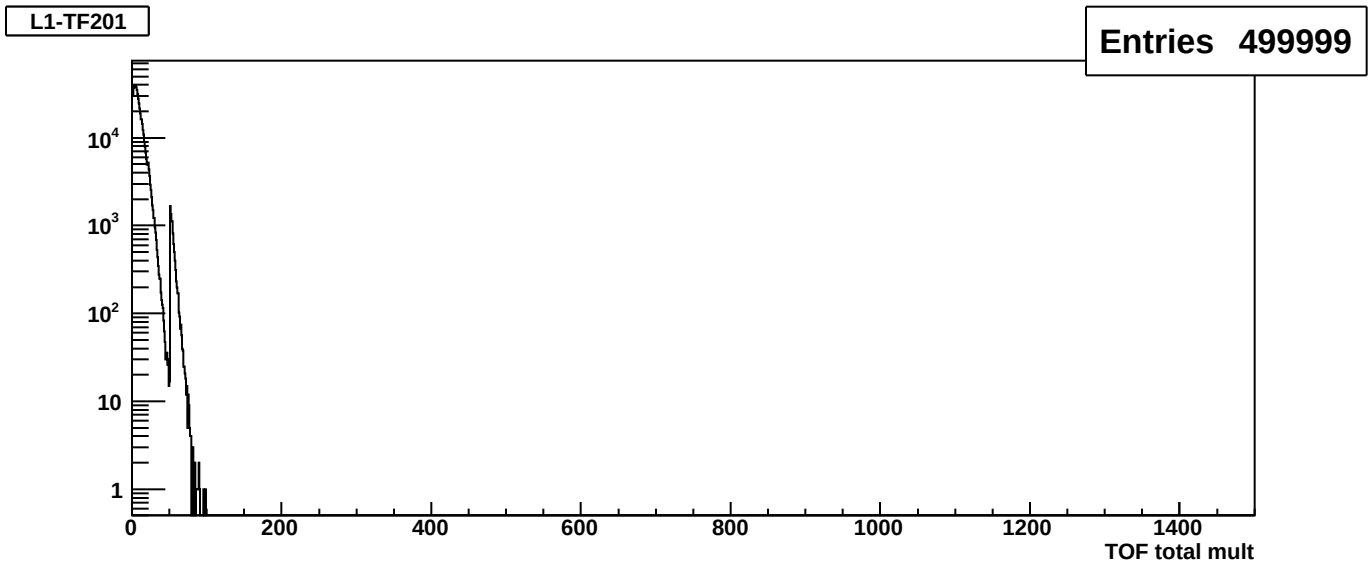

MIX-TF003
Entries 2.099996e+07
TOF MULT
TOF tray

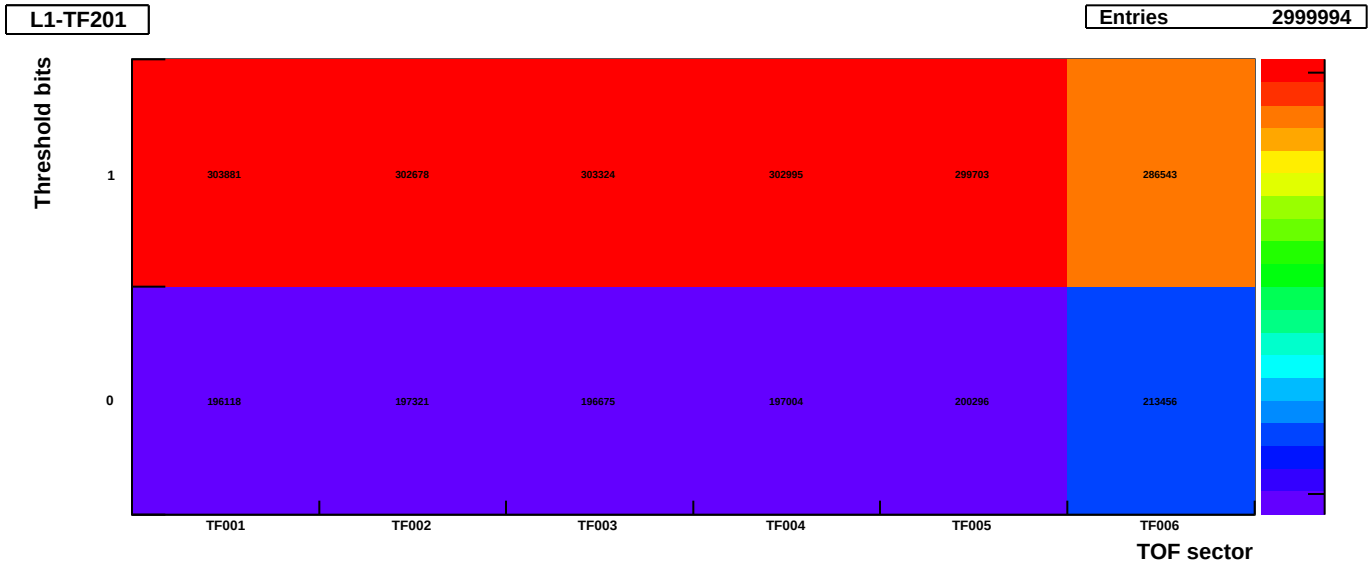

MIX-TF004
Entries 2.099996e+07
TOF MULT
TOF tray

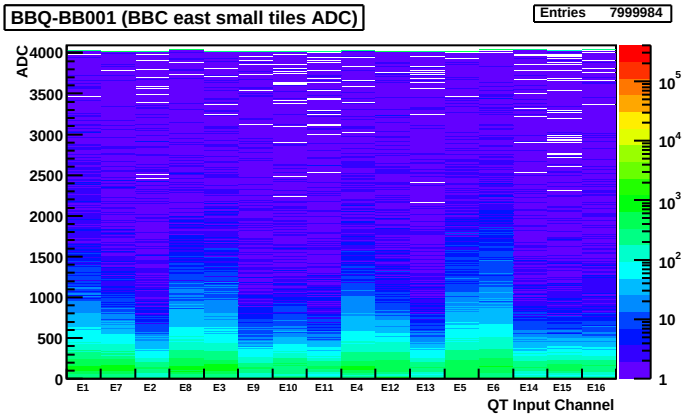

MIX-TF005
Entries 2.099996e+07
TOF MULT
TOF tray

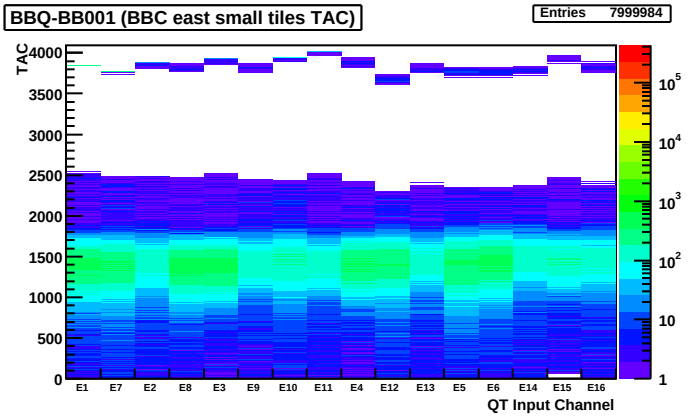

MIX-TF006
Entries 2.099996e+07
TOF MULT
TOF tray

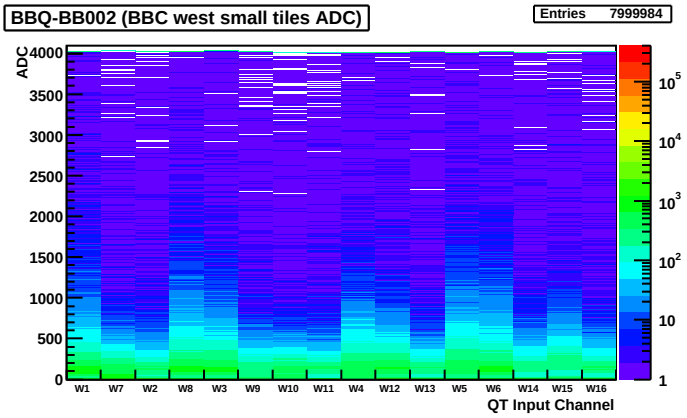

MIX-TF101
Entries 2999994
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

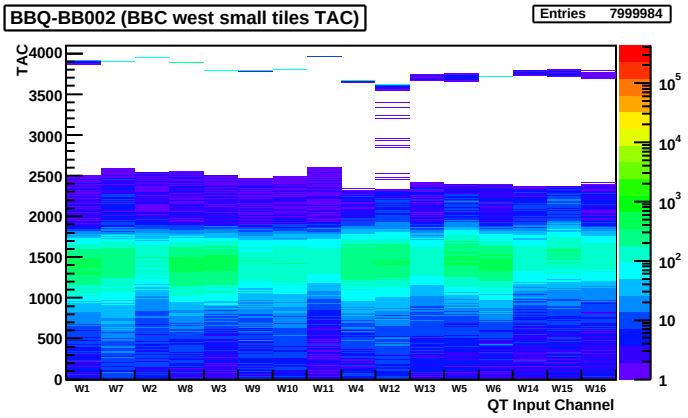

L1-TF201
Entries 499999
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
TOF total mult

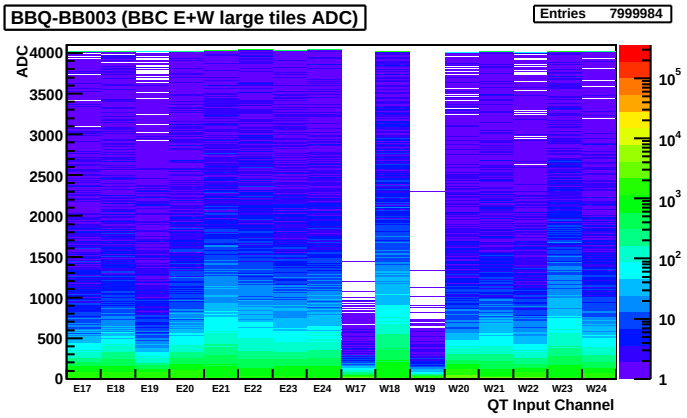

L1-TF201
Entries 2999994
Threshold bits
1
0
303881
302678
303324
302995
299703
286543
196118
197321
196675
197004
200296
213456
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

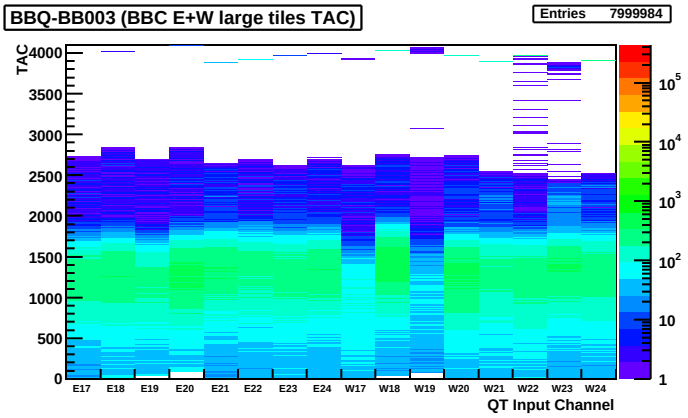

BBQ-BB001 (BBC east small tiles ADC)
Entries 7999984
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

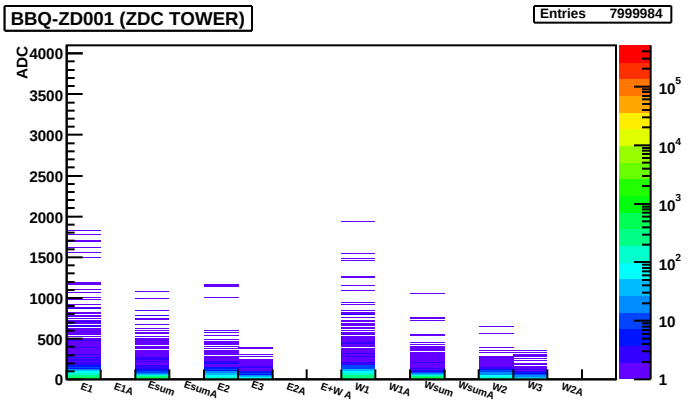

BBQ-BB001 (BBC east small tiles TAC)
Entries 7999984
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

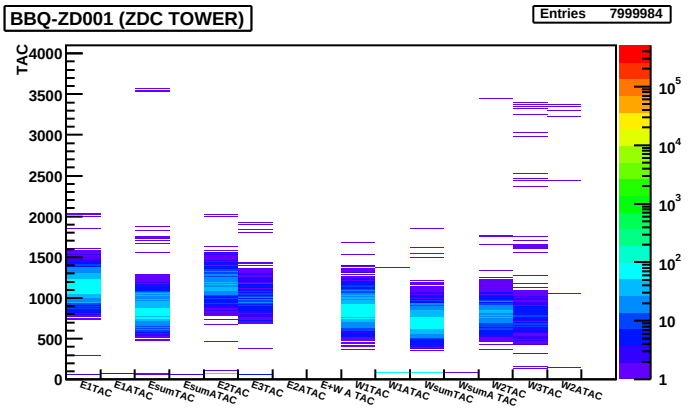

BBQ-BB002 (BBC west small tiles ADC)
Entries 7999984
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

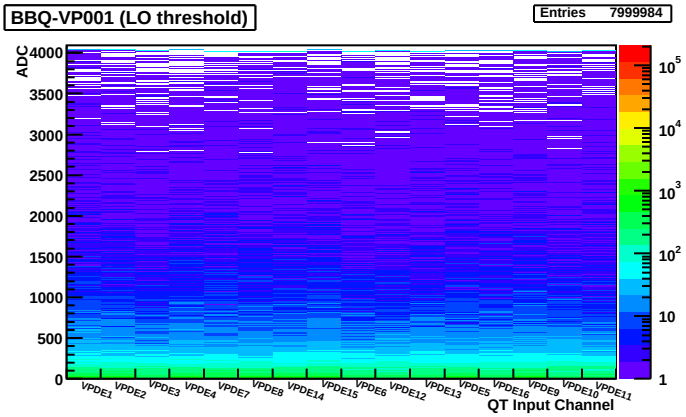

BBQ-BB002 (BBC west small tiles TAC)
Entries 7999984
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

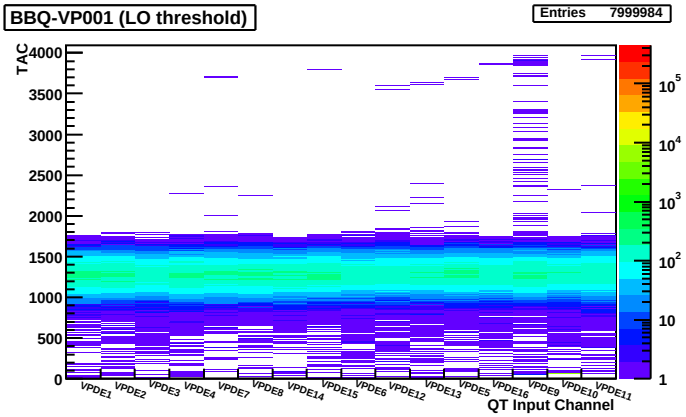

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7999984
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

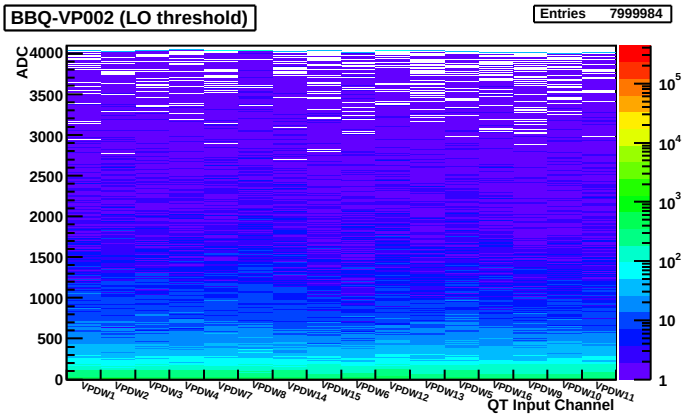

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7999984
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

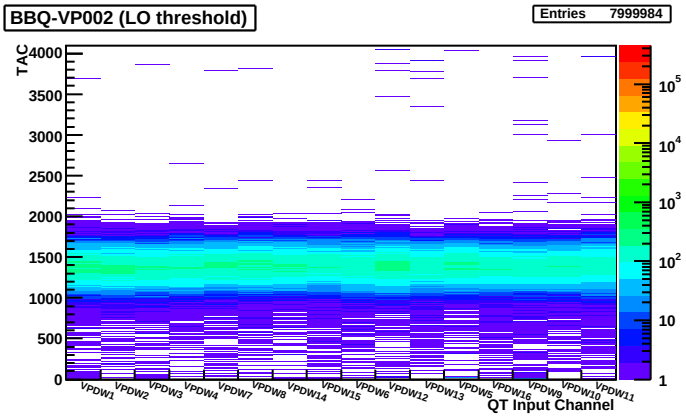

BBQ-ZD001 (ZDC TOWER)
Entries 7999984
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

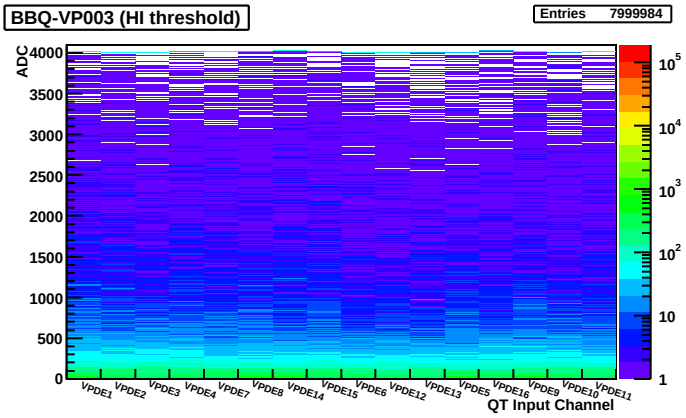

BBQ-ZD001 (ZDC TOWER)
Entries 7999984
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

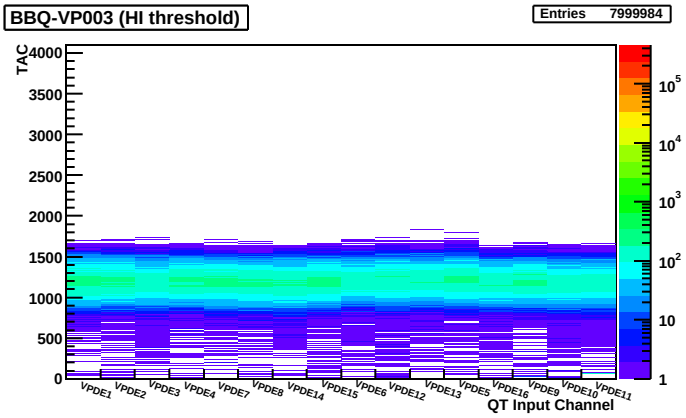

BBQ-VP001 (LO threshold)
Entries 7999984
ADC
QT Input Channel

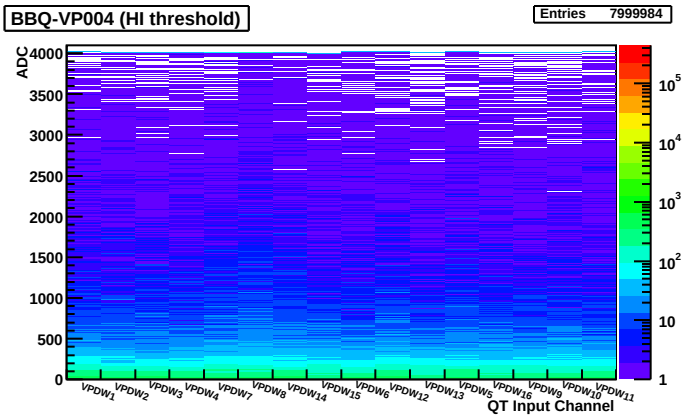

BBQ-VP001 (LO threshold)
Entries 7999984
TAC
QT Input Channel

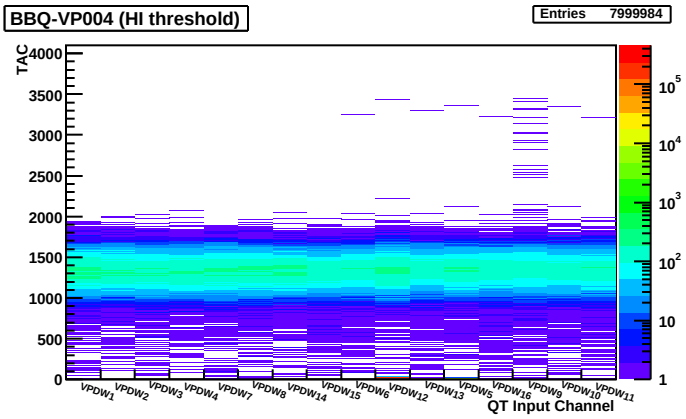

BBQ-VP002 (LO threshold)
Entries 7999984
ADC
QT Input Channel

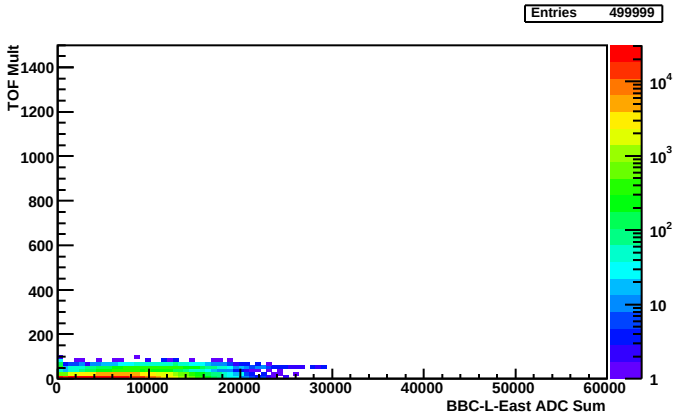

BBQ-VP002 (LO threshold)
Entries 7999984
TAC
QT Input Channel

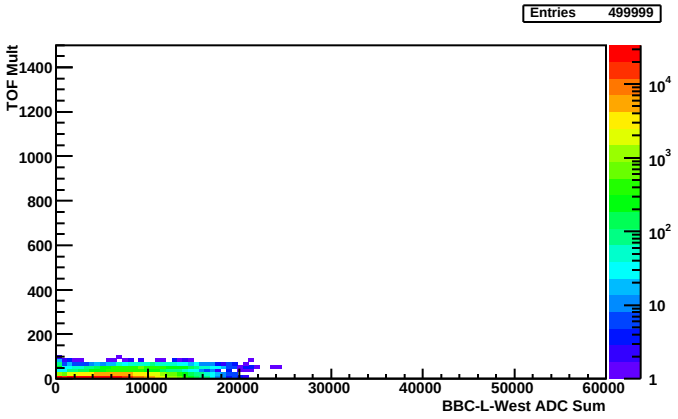

BBQ-VP003 (HI threshold)
Entries 7999984
ADC
QT Input Channel

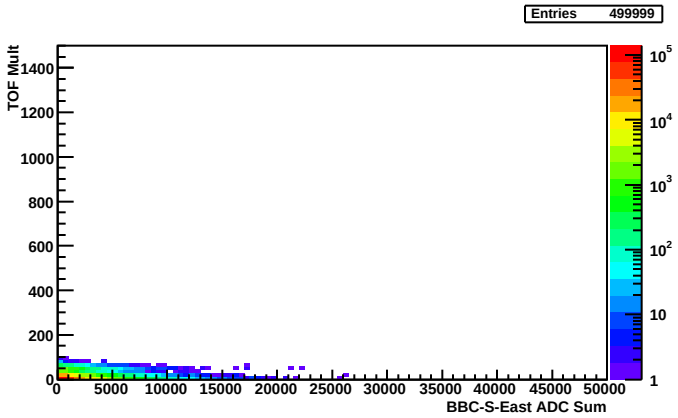

BBQ-VP003 (HI threshold)
Entries 7999984
TAC
QT Input Channel

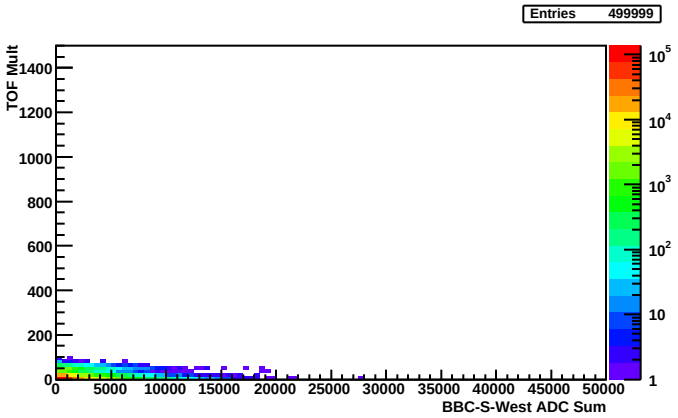

BBQ-VP004 (HI threshold)
Entries 7999984
ADC
QT Input Channel

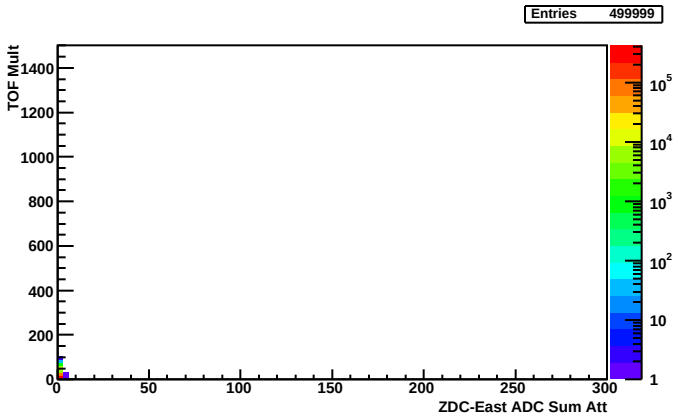

BBQ-VP004 (HI threshold)
Entries 7999984
TAC
QT Input Channel

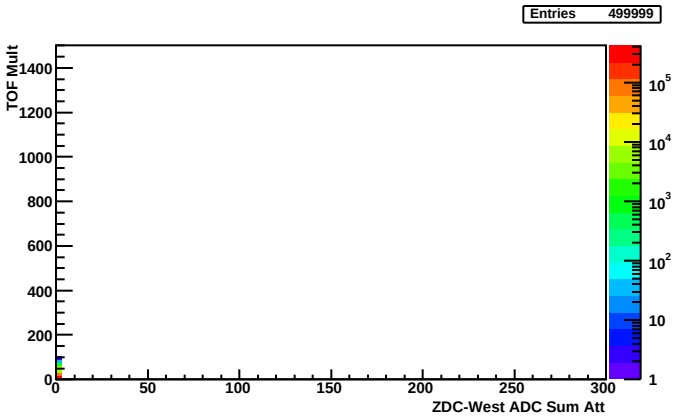

Entries 499999
TOF Mult
BBC-L-East ADC Sum

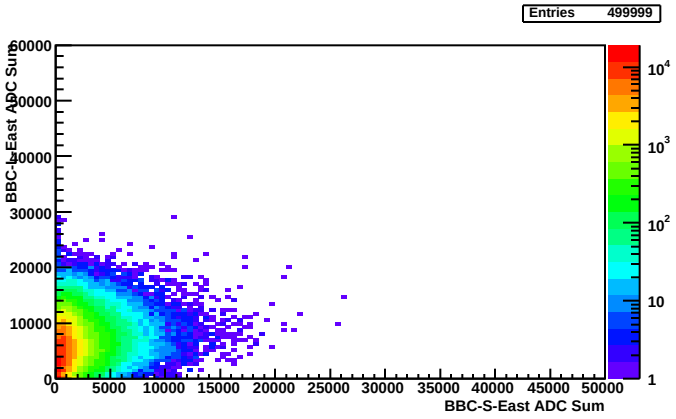

Entries 499999
TOF Mult
BBC-L-West ADC Sum

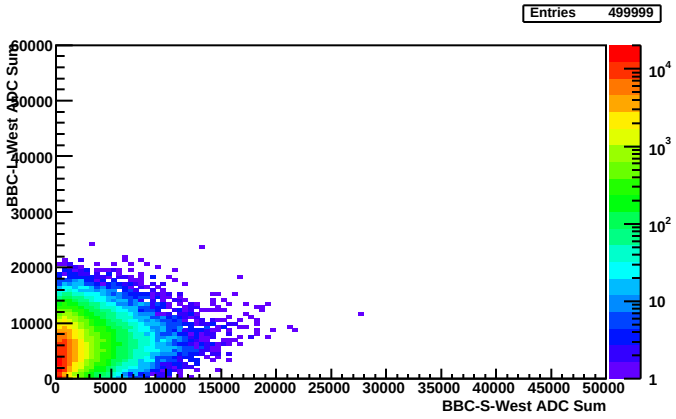

Entries 499999
TOF Mult
BBC-S-East ADC Sum

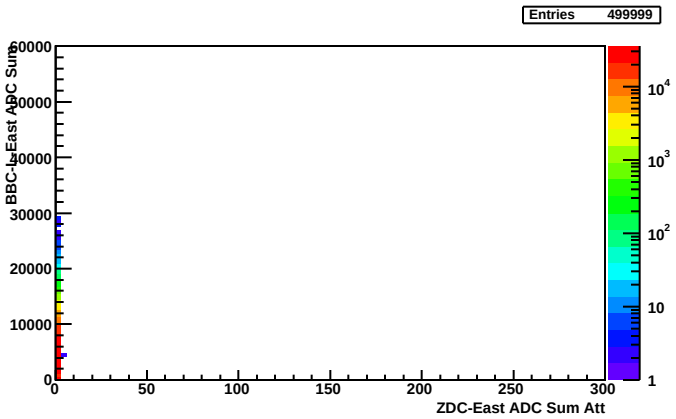

Entries 499999
TOF Mult
BBC-S-West ADC Sum

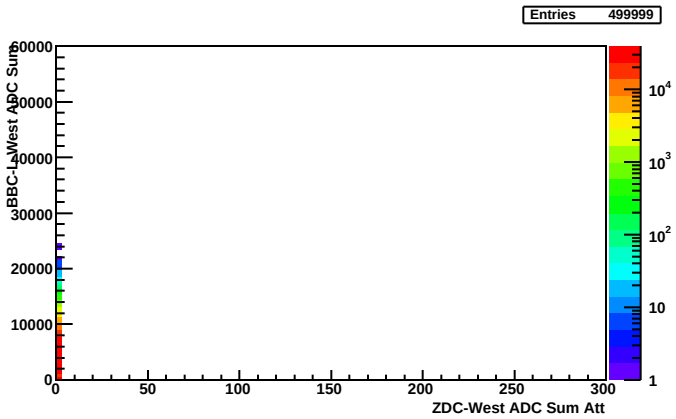

Entries 499999
TOF Mult
ZDC-East ADC Sum Att

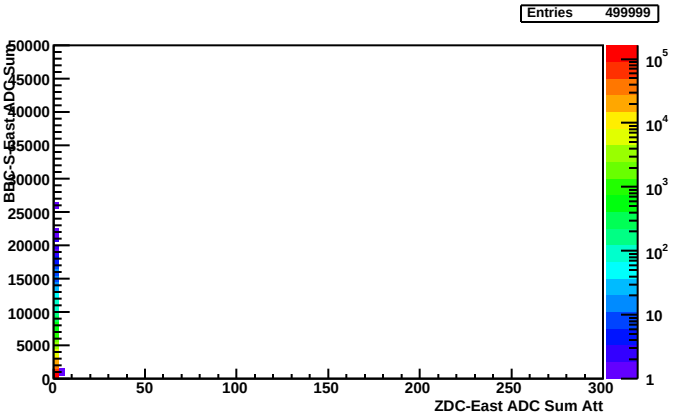

Entries 499999
TOF Mult
ZDC-West ADC Sum Att

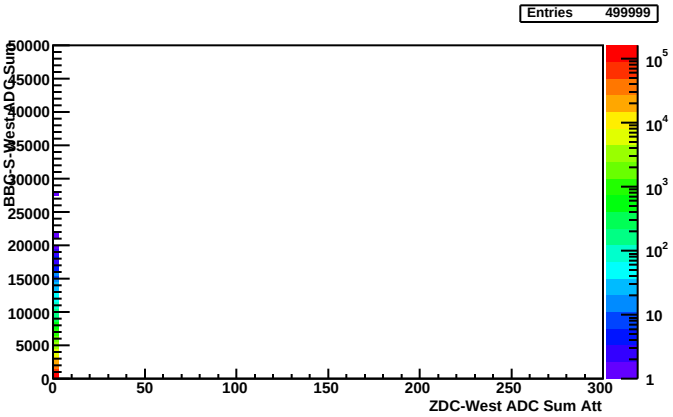

Entries 499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

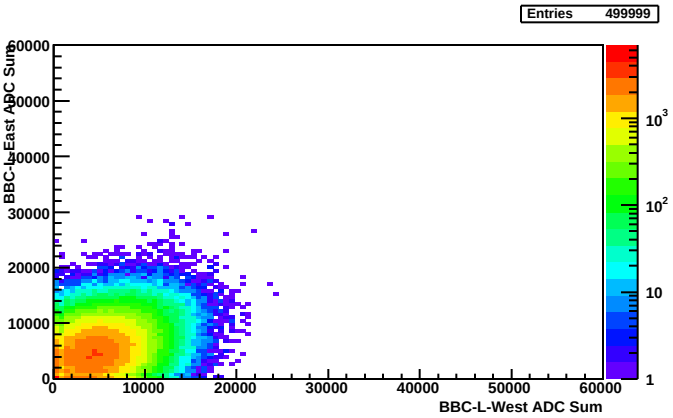

Entries 499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

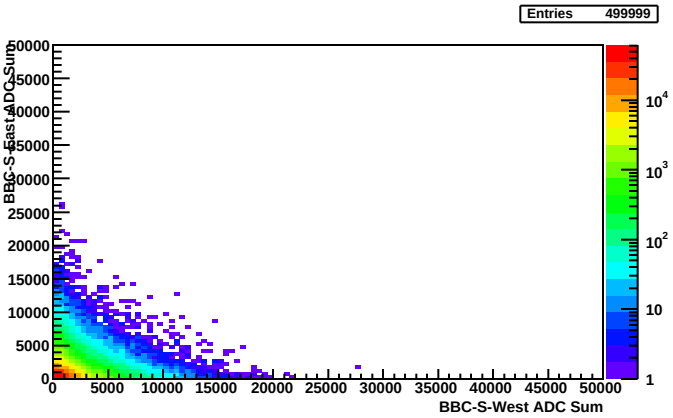

Entries 499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

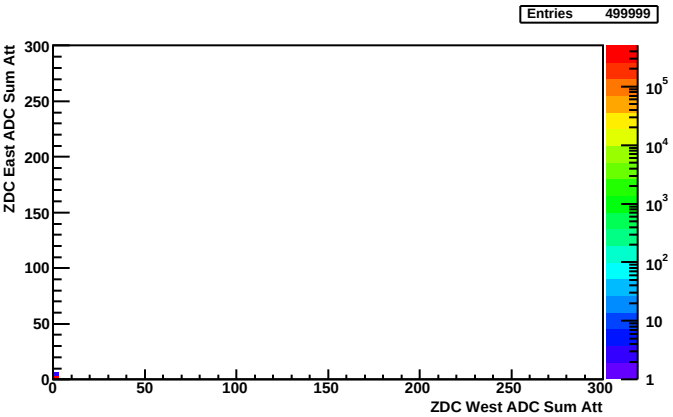

Entries 499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

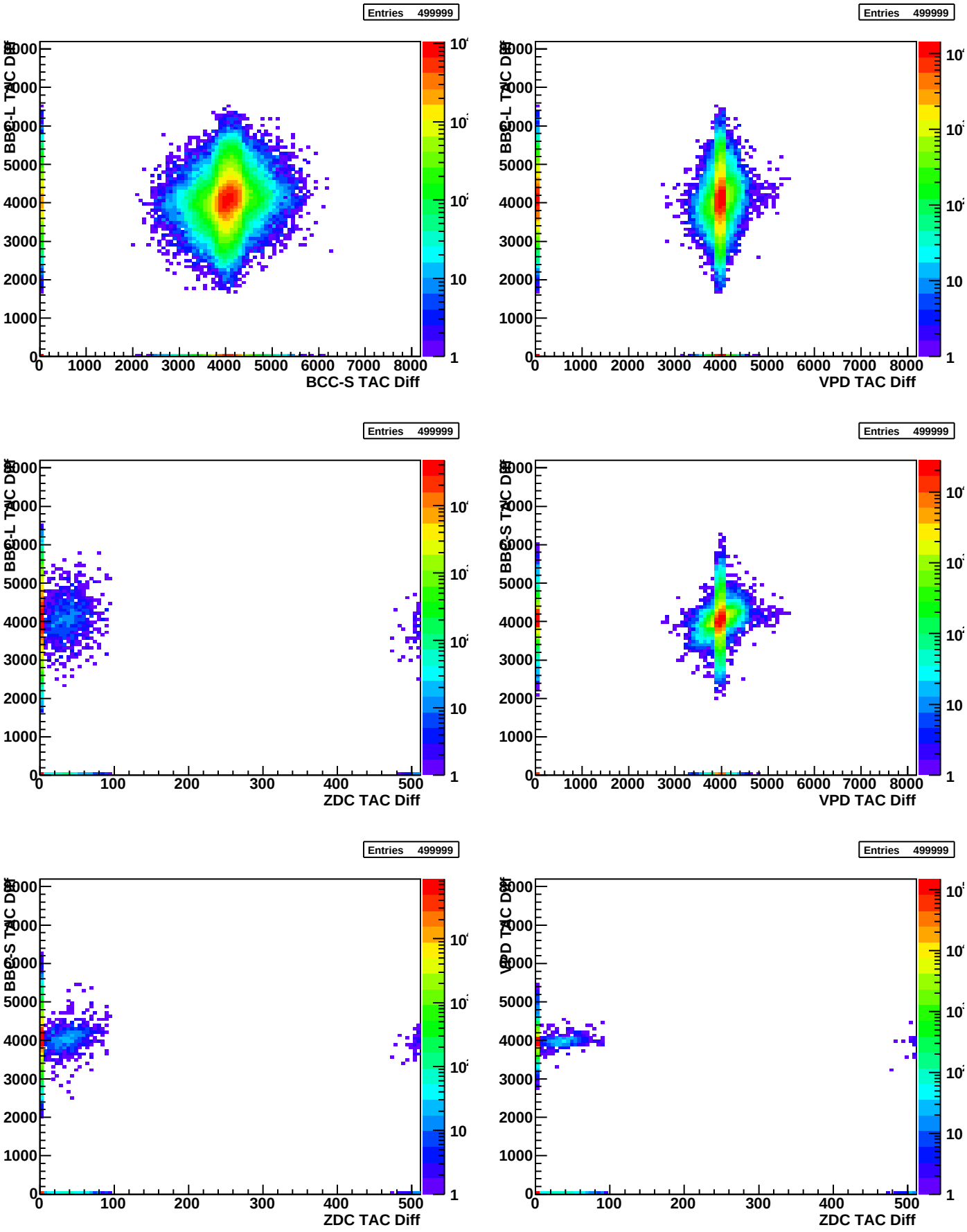

Entries 499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

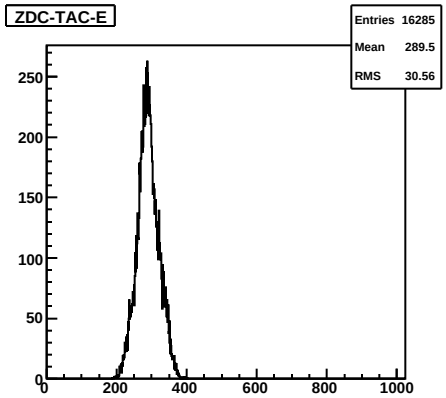

Entries 499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

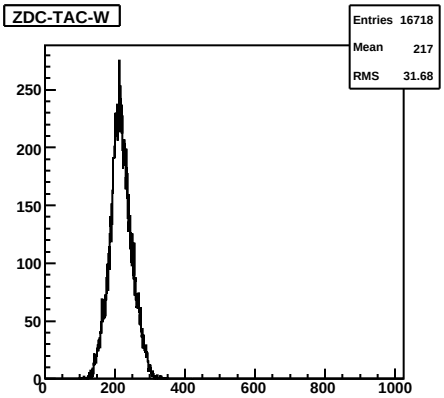

Entries 499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

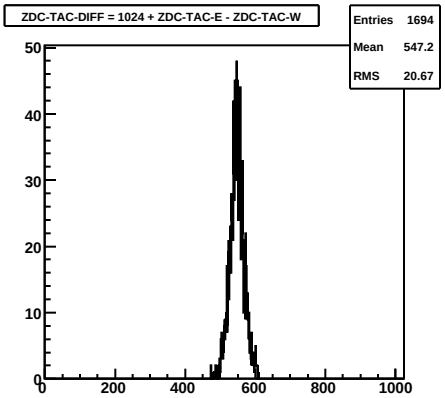

Entries 499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

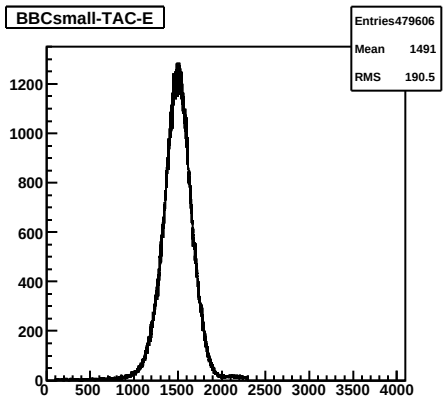

Entries 499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

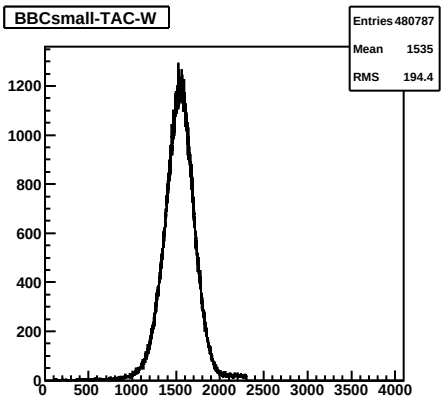

Entries 499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 499999
BBC-L TAC Diff
VPD TAC Diff
Entries 499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 499999
BBC-S TAC Diff
VPD TAC Diff
Entries 499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 499999
VPD TAC Diff
ZDC TAC Diff

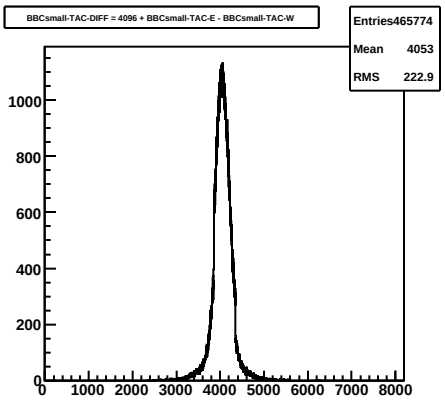

ZDC-TAC-E
Entries 16285
Mean 289.5
RMS 30.56

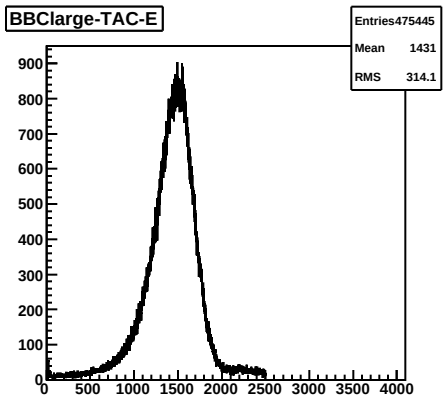

ZDC-TAC-W
Entries 16718
Mean 217
RMS 31.68

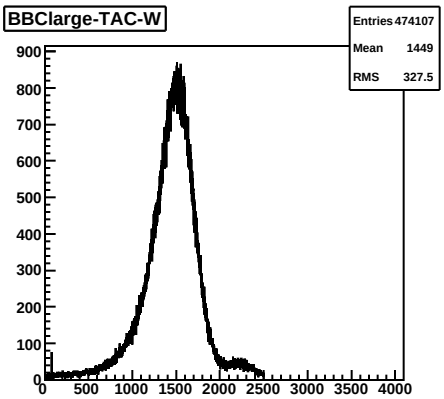

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1694
Mean 547.2
RMS 20.67

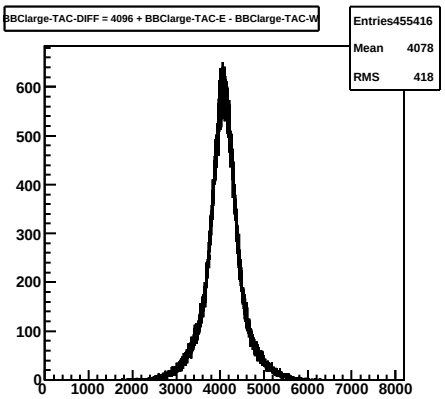

BBCsmall-TAC-E
Entries 479606
Mean 1491
RMS 190.5

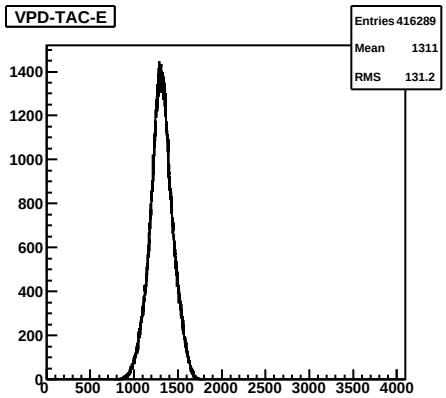

BBCsmall-TAC-W
Entries 480787
Mean 1535
RMS 194.4

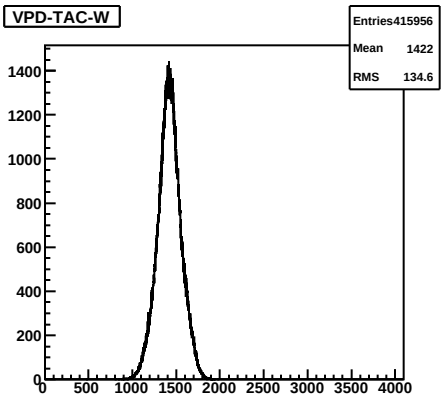

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 465774
Mean 4053
RMS 222.9

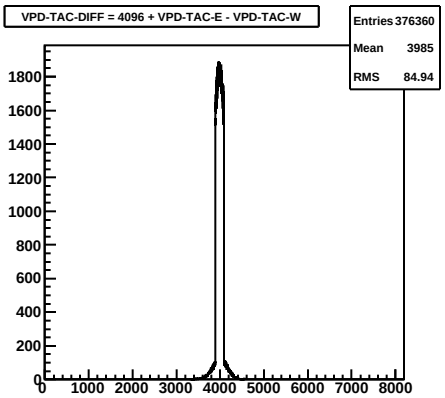

BBClarge-TAC-E
Entries 475445
Mean 1431
RMS 314.1

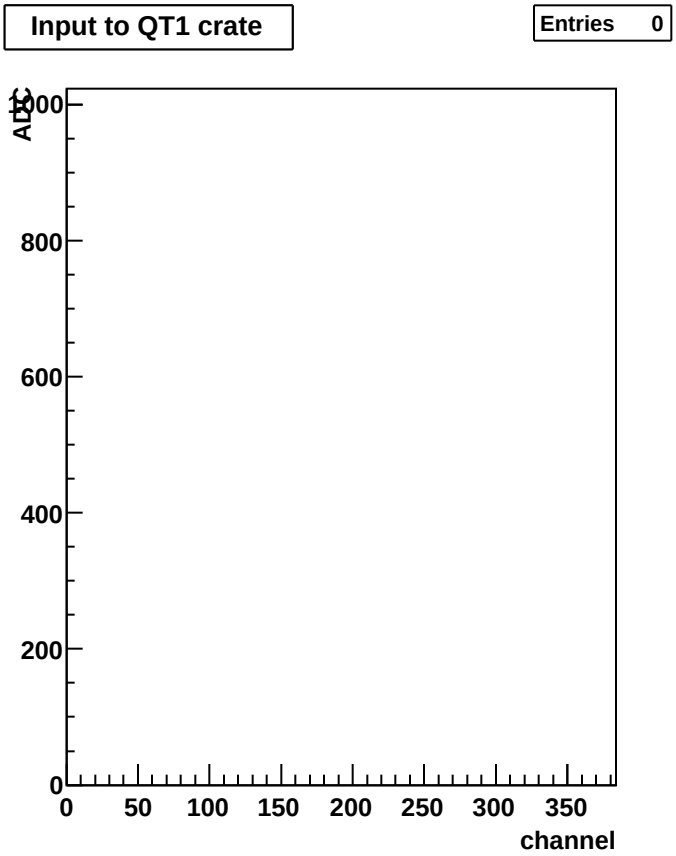

BBClarge-TAC-W
Entries 474107
Mean 1449
RMS 327.5

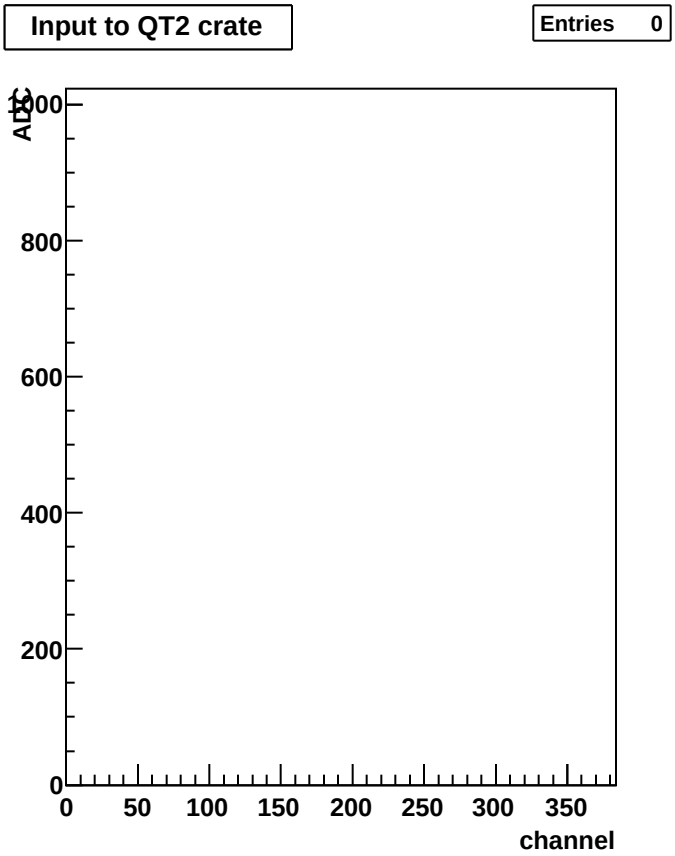

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 455416
Mean 4078
RMS 418

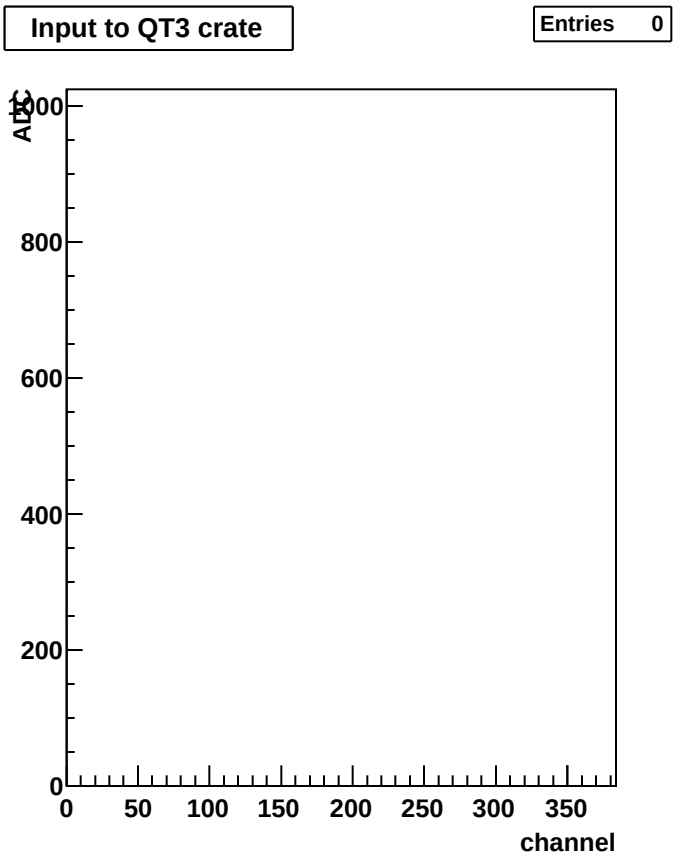

VPD-TAC-E
Entries 416289
Mean 1311
RMS 131.2

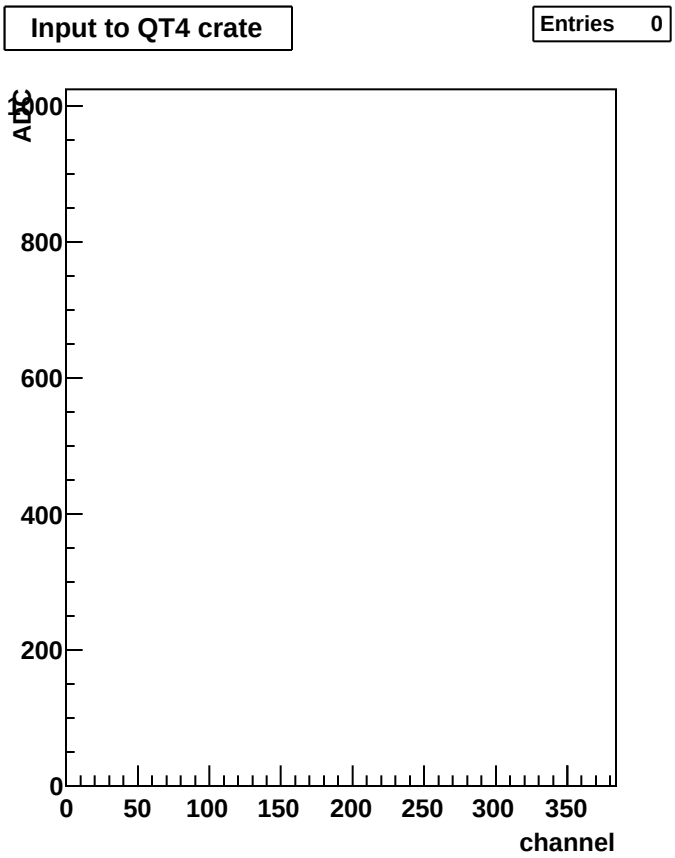

VPD-TAC-W
Entries 415956
Mean 1422
RMS 134.6

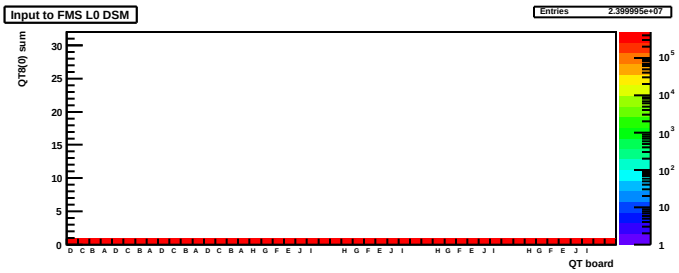

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 376360
Mean 3985
RMS 84.94

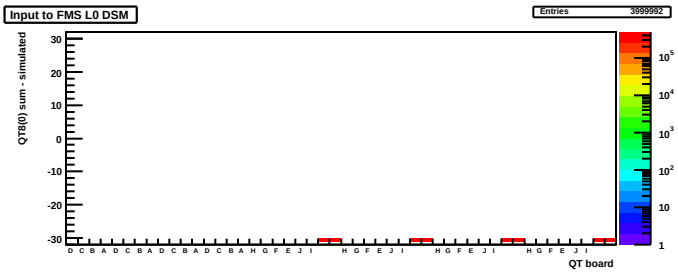

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

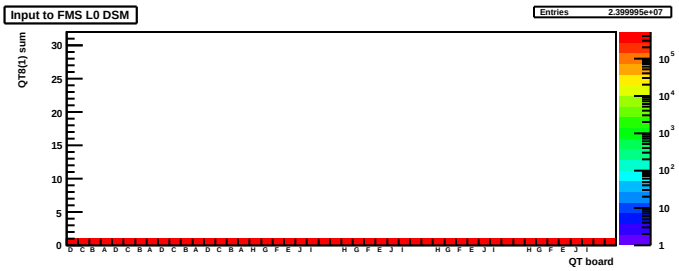

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

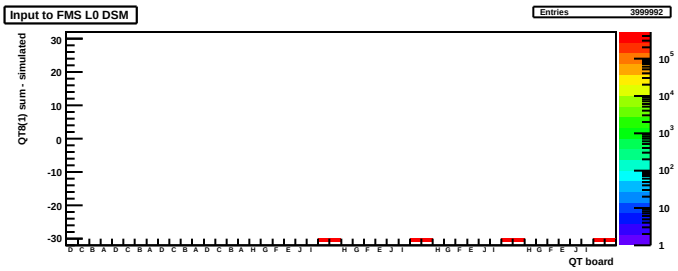

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

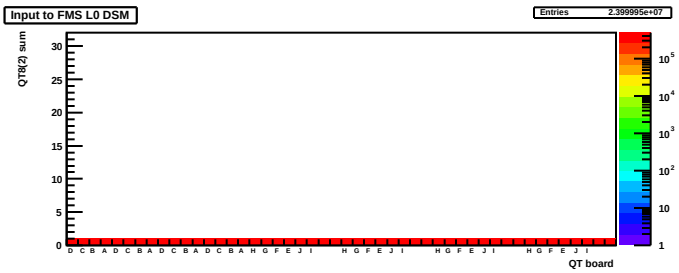

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

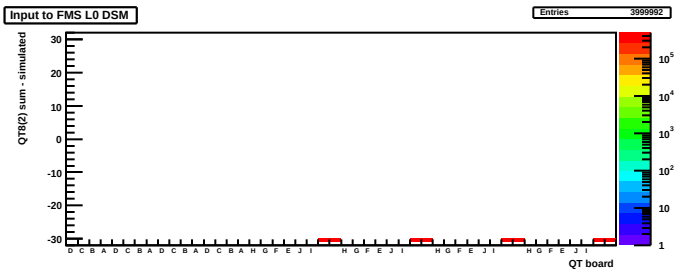

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(0) sum
QT board

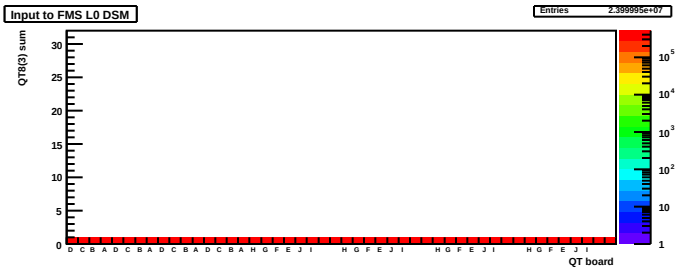

Input to FMS L0 DSM
Entries 3999992
QT8(0) sum - simulated
QT board

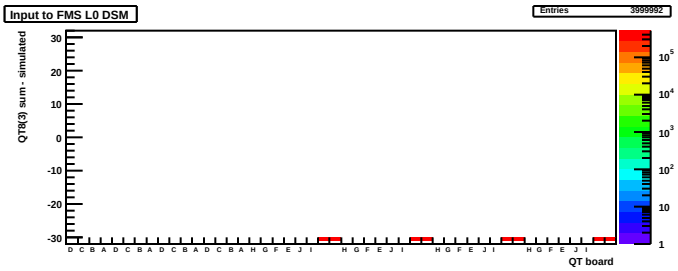

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(1) sum
QT board

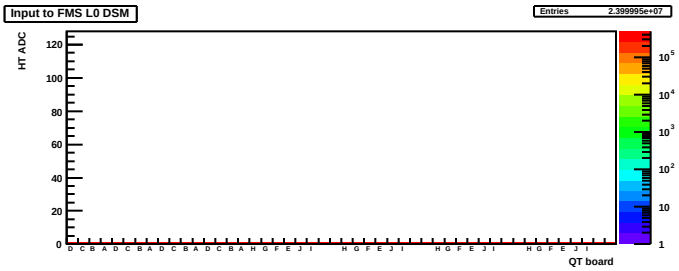

Input to FMS L0 DSM
Entries 3999992
QT8(1) sum - simulated
QT board

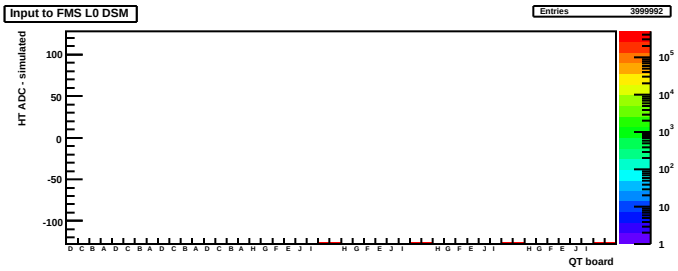

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(2) sum
QT board

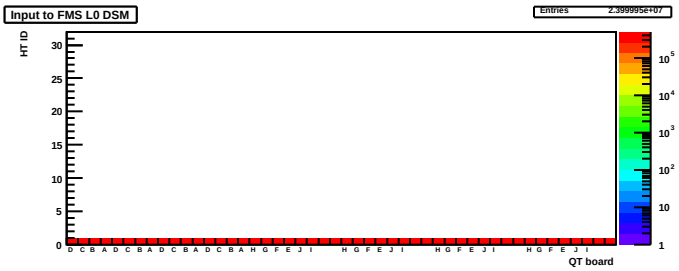

Input to FMS L0 DSM
Entries 3999992
QT8(2) sum - simulated
QT board

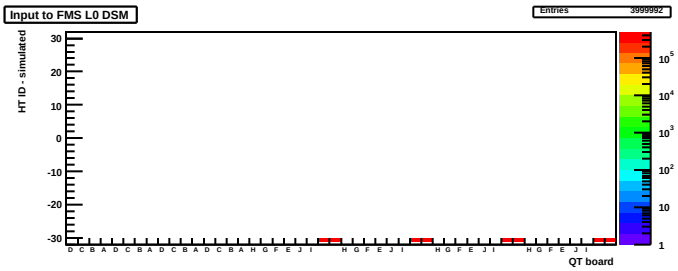

Input to FMS L0 DSM
Entries 2.399995e+07
QT8(3) sum
QT board

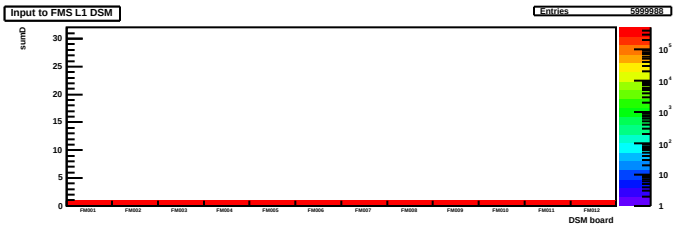

Input to FMS L0 DSM
Entries 3999992
QT8(3) sum - simulated
QT board

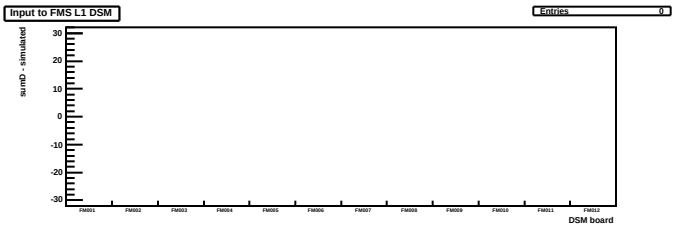

Input to FMS L0 DSM
Entries 2.399995e+07
HT ADC
QT board

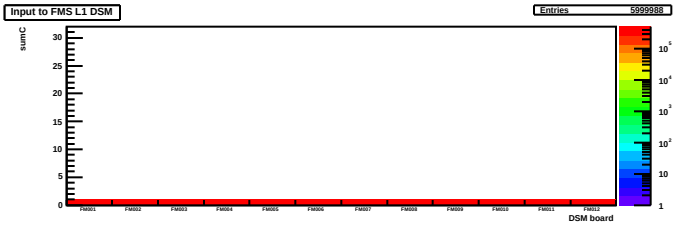

Input to FMS L0 DSM
Entries 3999992
HT ADC - simulated
QT board

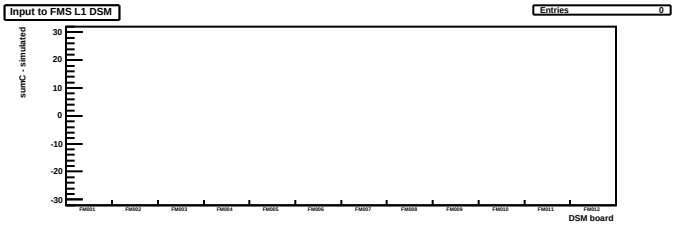

Input to FMS L0 DSM
Entries 2.399995e+07
HT ID
QT board

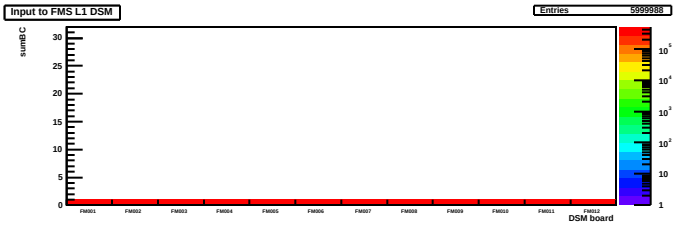

Input to FMS L0 DSM
Entries 3999992
HT ID - simulated
QT board

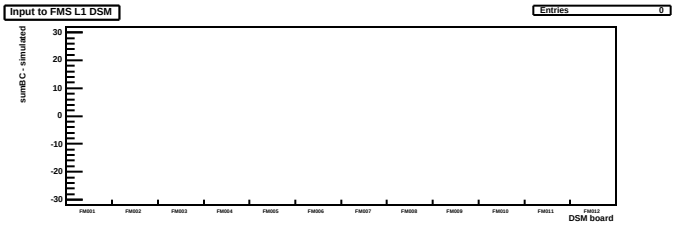

Input to FMS L1 DSM
Entries 5999988
sumD
DSM board

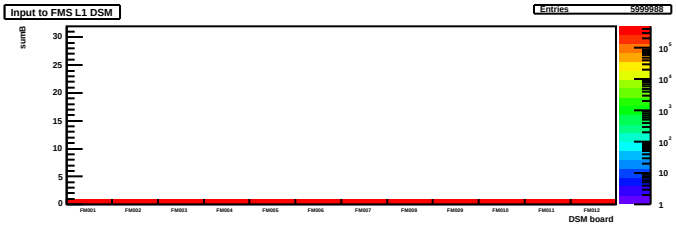

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

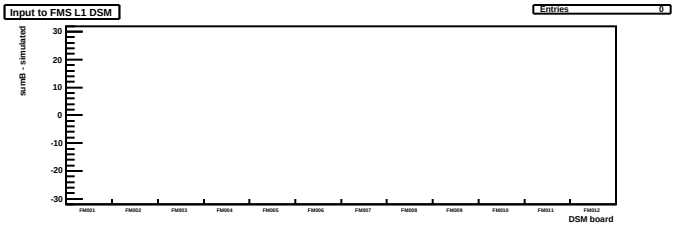

Input to FMS L1 DSM
Entries 5999988
sumC
DSM board

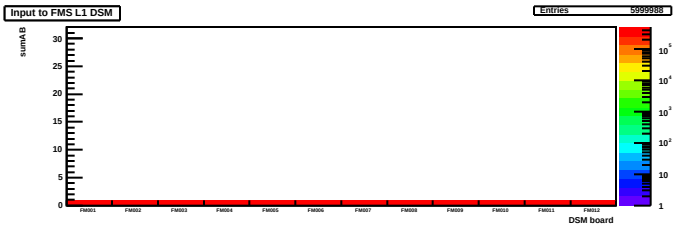

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

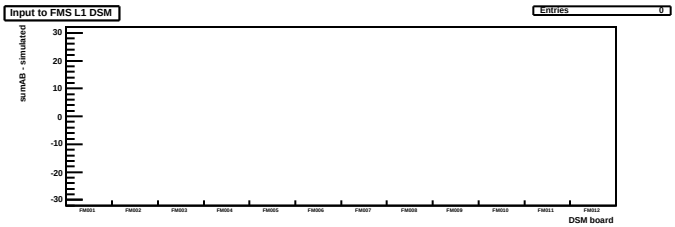

Input to FMS L1 DSM
Entries 5999988
sumBC
DSM board

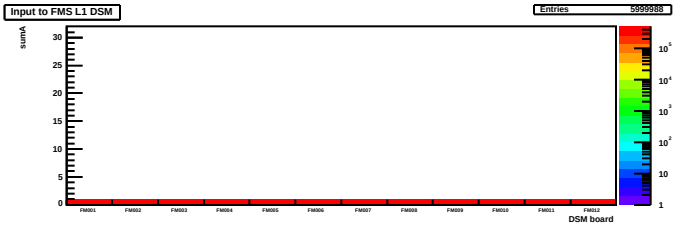

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

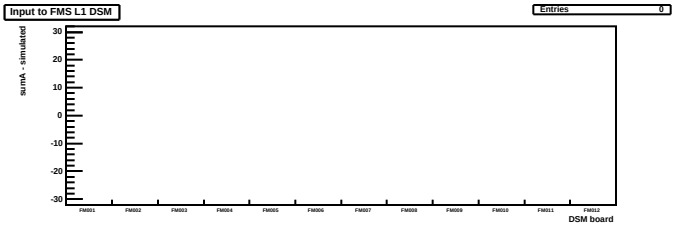

Input to FMS L1 DSM
Entries 5999988
sumB
DSM board

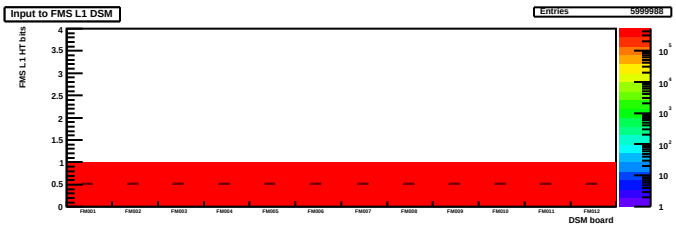

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

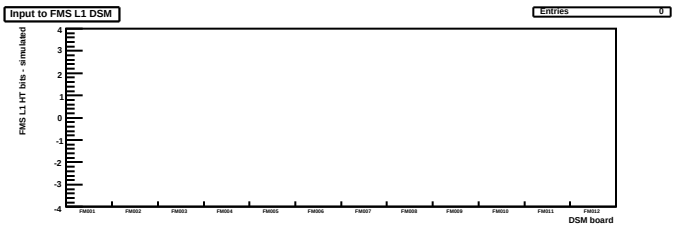

Input to FMS L1 DSM
Entries 5999988
sumAB
DSM board

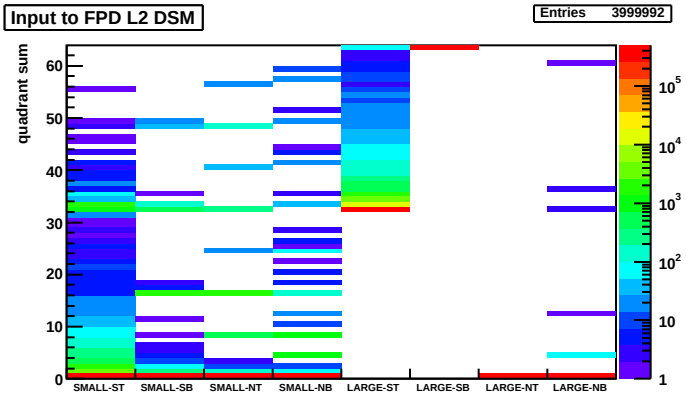

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

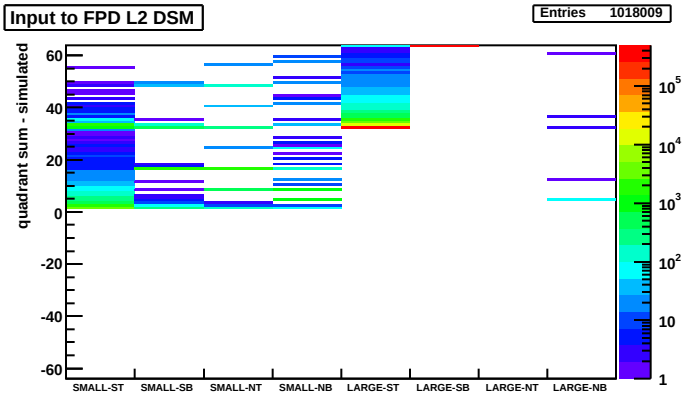

Input to FMS L1 DSM
Entries 5999988
sumA
DSM board

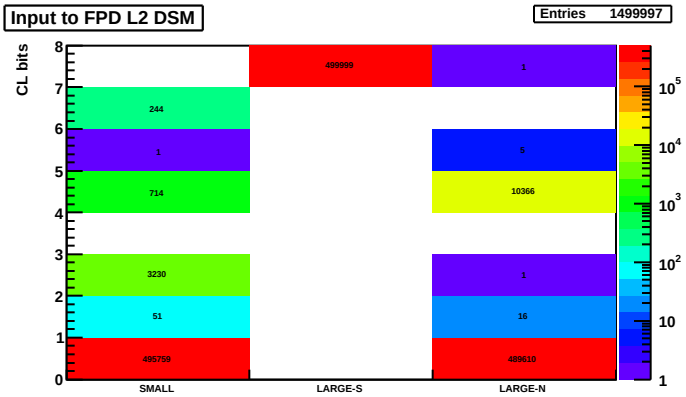

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

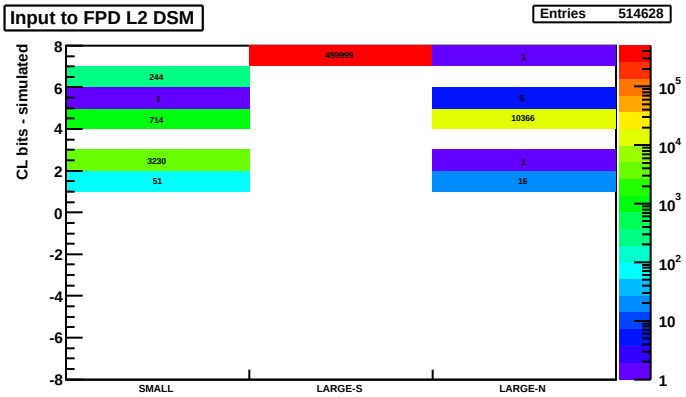

Input to FMS L1 DSM
Entries 5999988
FMS L1 HT bits
DSM board

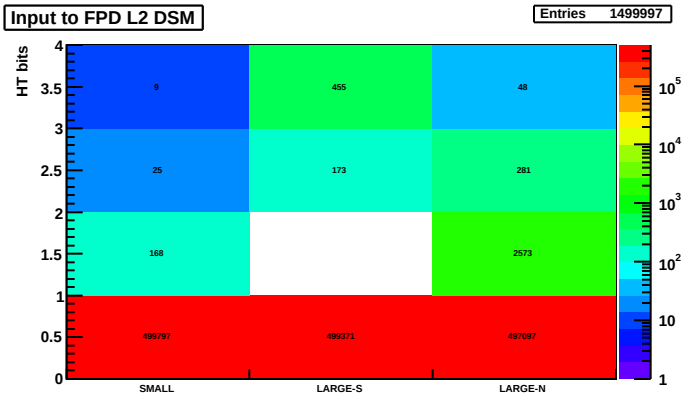

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

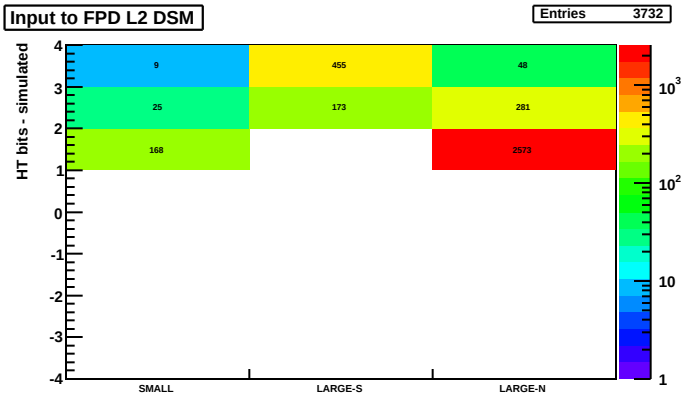

Input to FPD L2 DSM
Entries 3999992
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

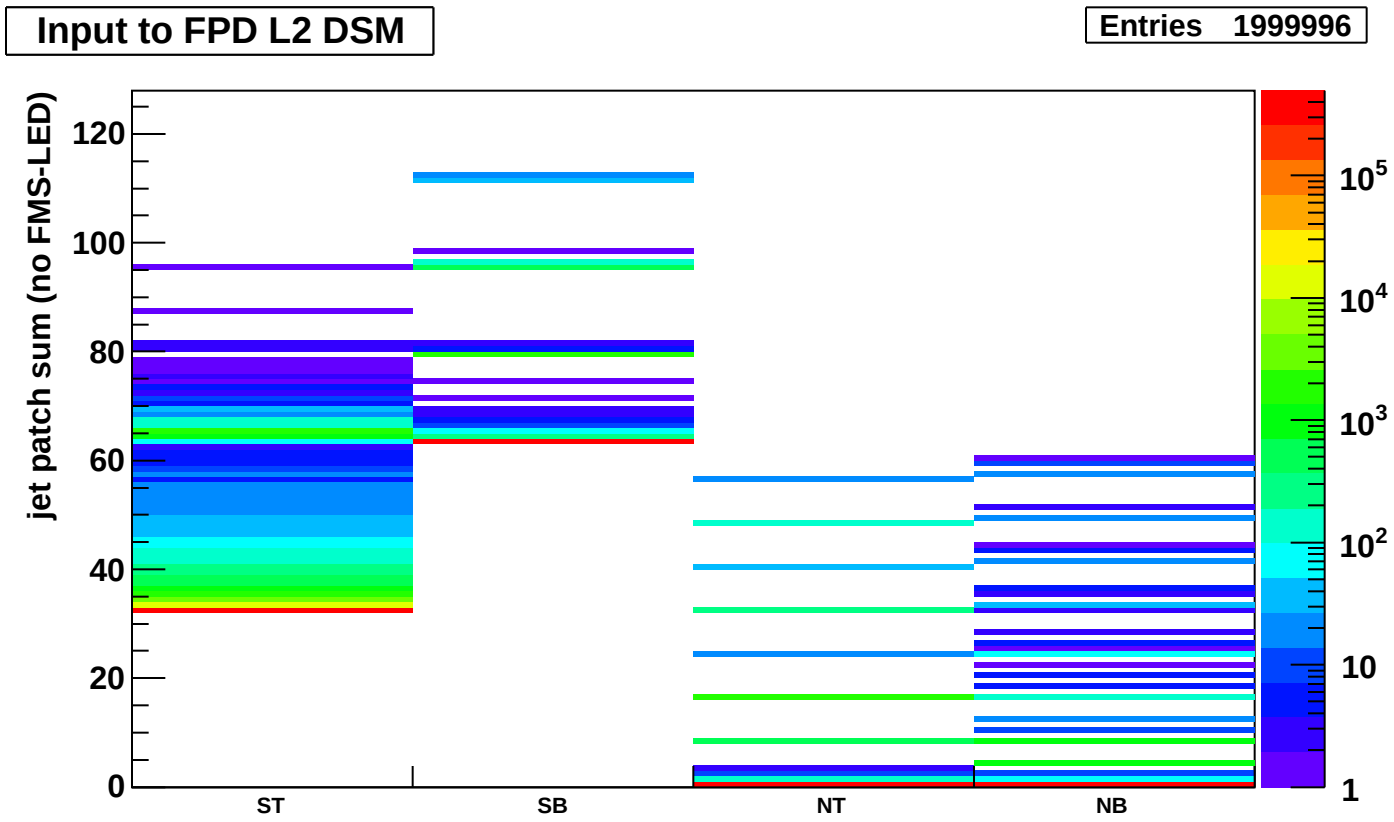

Input to FPD L2 DSM
Entries 1018009
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

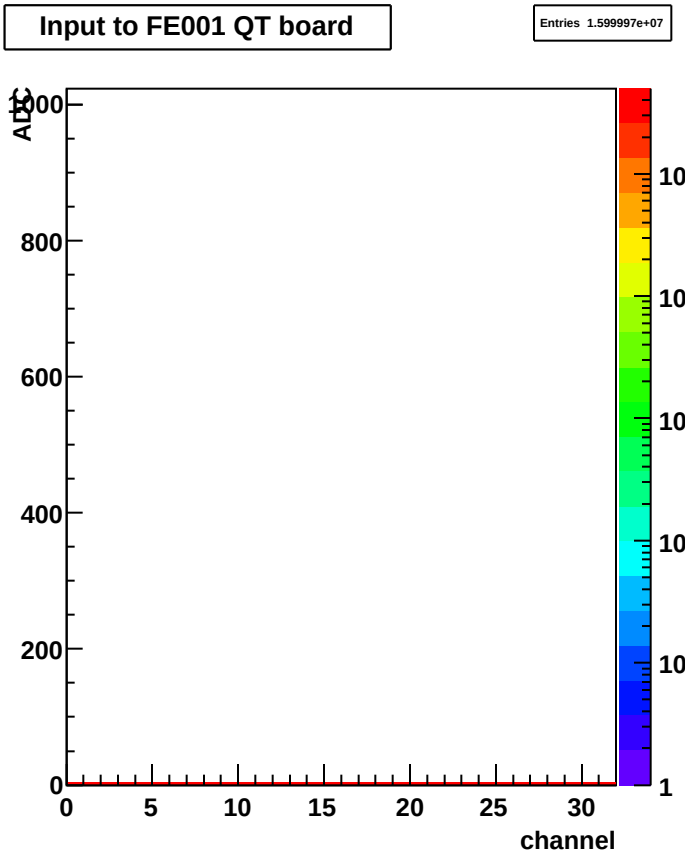

Input to FPD L2 DSM
Entries 1499997
CL bits
499999
1
244
1
714
5
10366
3230
1
51
16
495759
489610
SMALL
LARGE-S
LARGE-N

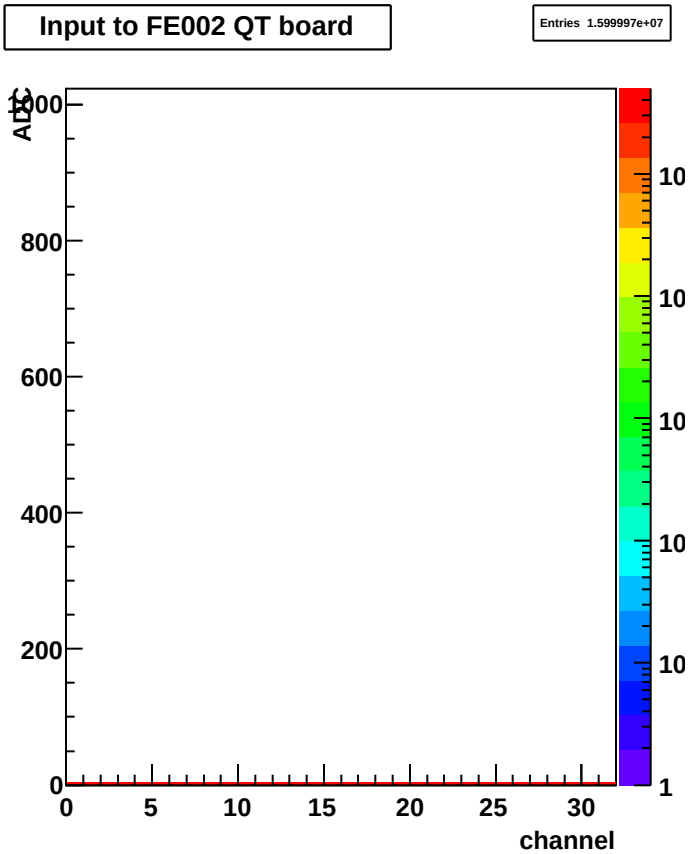

Input to FPD L2 DSM
Entries 514628
CL bits - simulated
499999
1
244
1
714
5
10366
3230
1
51
16
SMALL
LARGE-S
LARGE-N

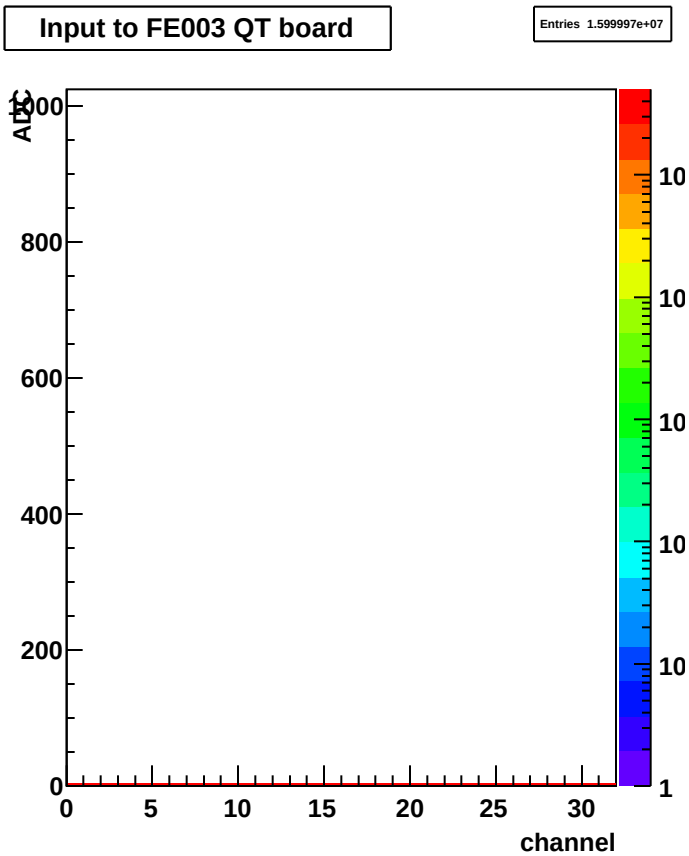

Input to FPD L2 DSM
Entries 1499997
HT bits
9
455
48
25
173
281
168
2573
499797
499371
497097
SMALL
LARGE-S
LARGE-N

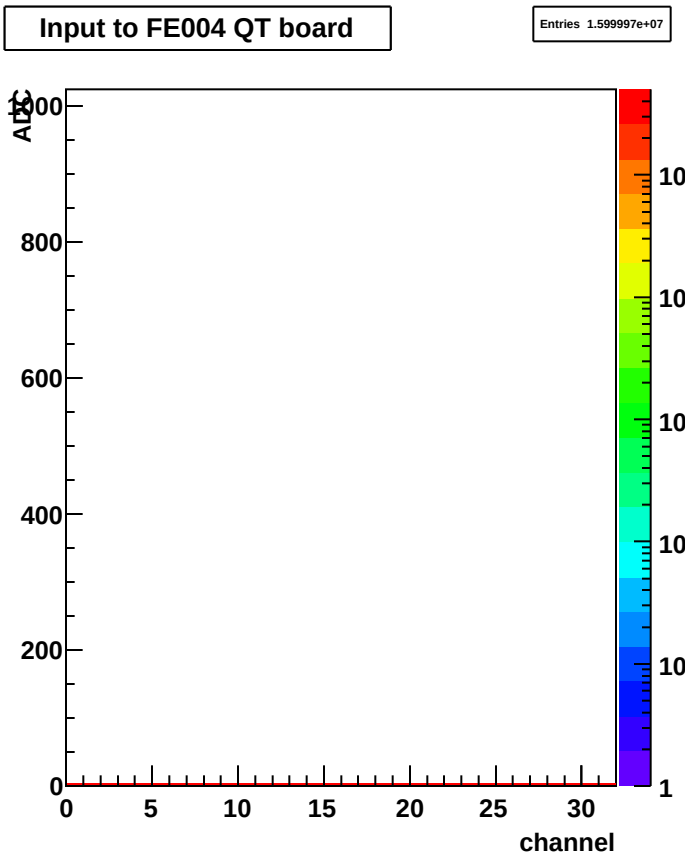

Input to FPD L2 DSM
Entries 3732
HT bits - simulated
9
455
48
25
173
281
168
2573
SMALL
LARGE-S
LARGE-N

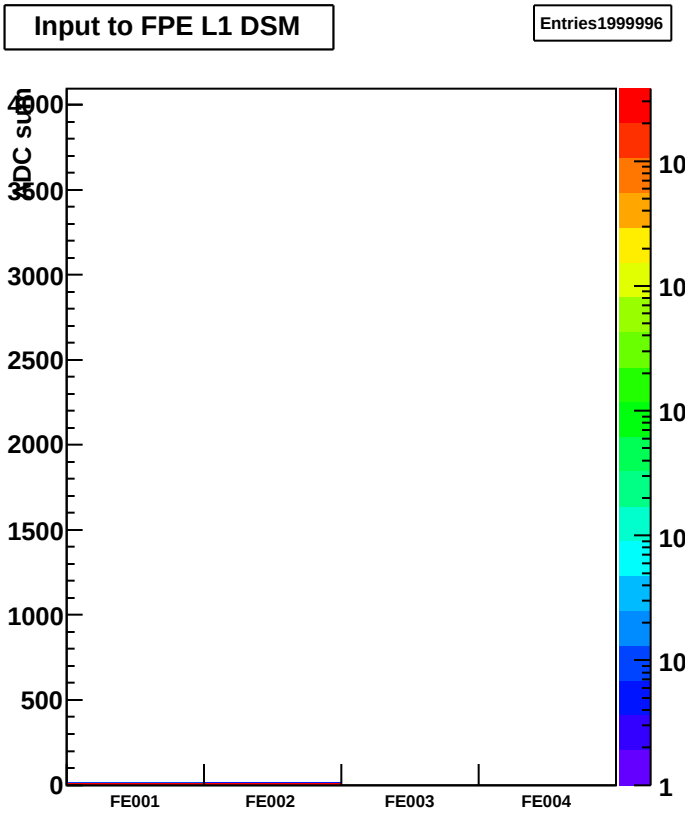

Input to FPD L2 DSM
Entries 1999996
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

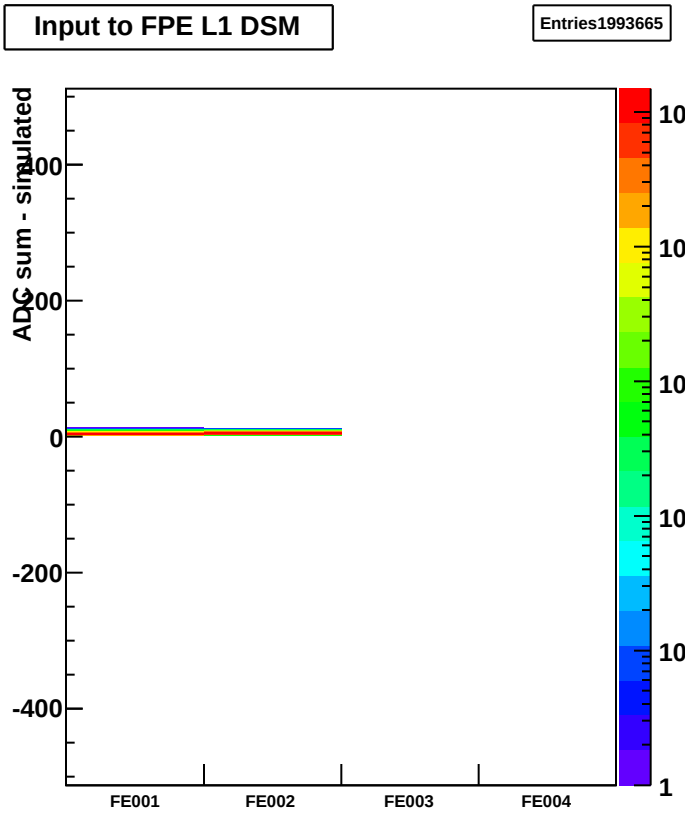

Input to FE001 QT board
Entries 1.599997e+07
ADC
channel

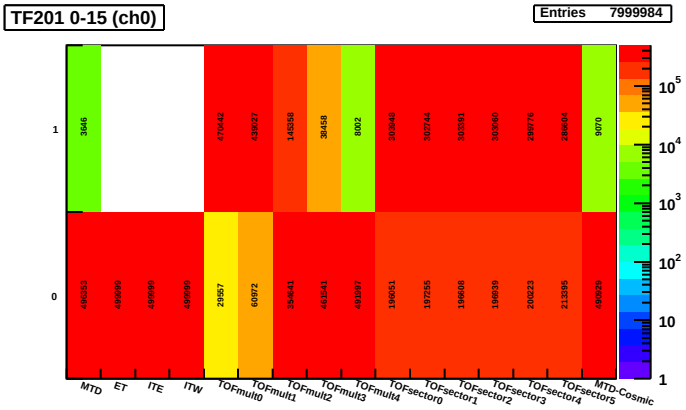

Input to FE002 QT board
Entries 1.599997e+07
ADC
channel

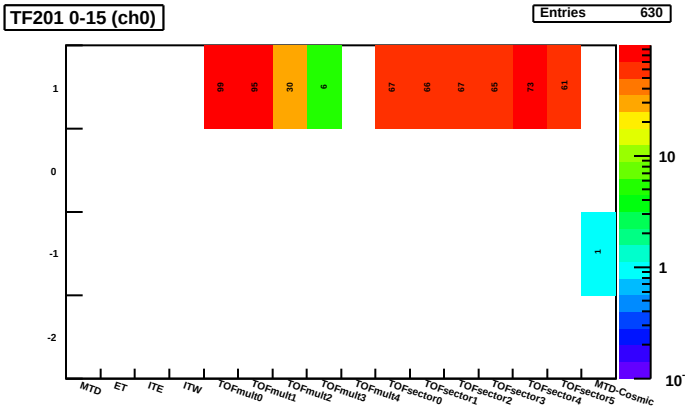

Input to FE003 QT board
Entries 1.599997e+07
ADC
channel

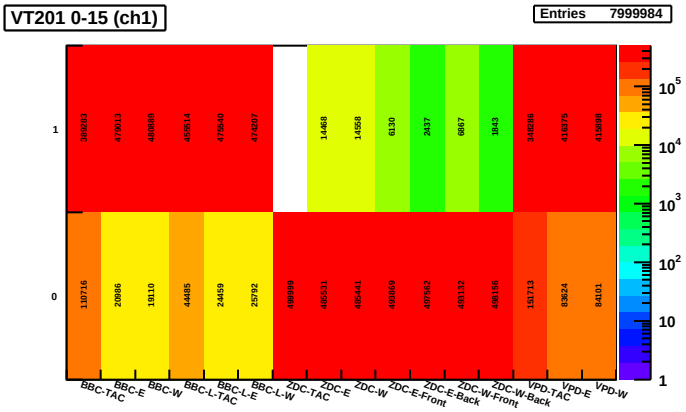

Input to FE004 QT board
Entries 1.599997e+07
ADC
channel

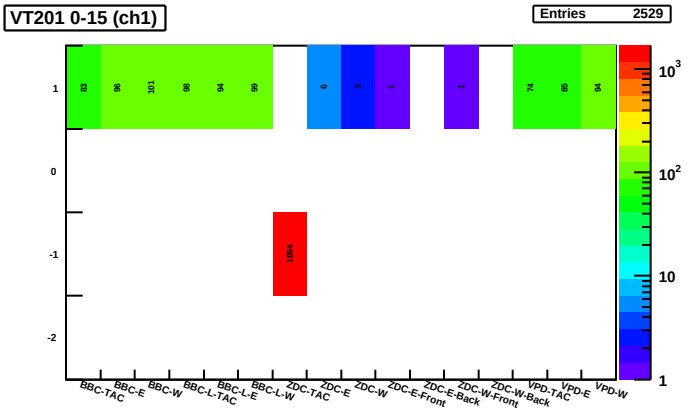

Input to FPE L1 DSM
Entries1999996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

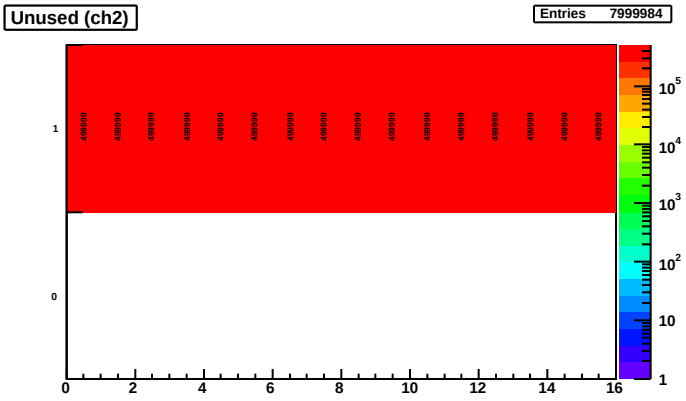

Input to FPE L1 DSM
Entries1993665
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

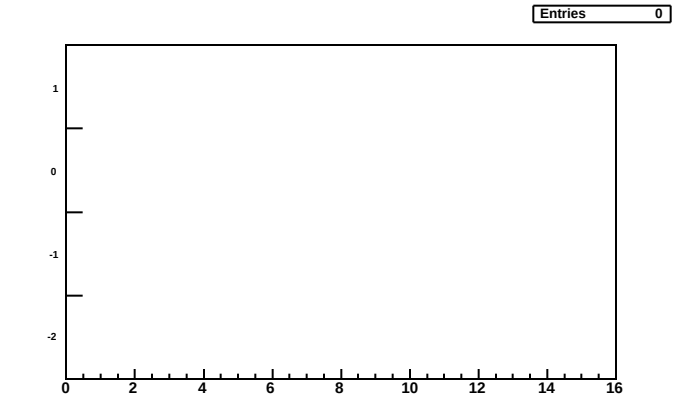

TF201 0-15 (ch0)
Entries 7999984
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

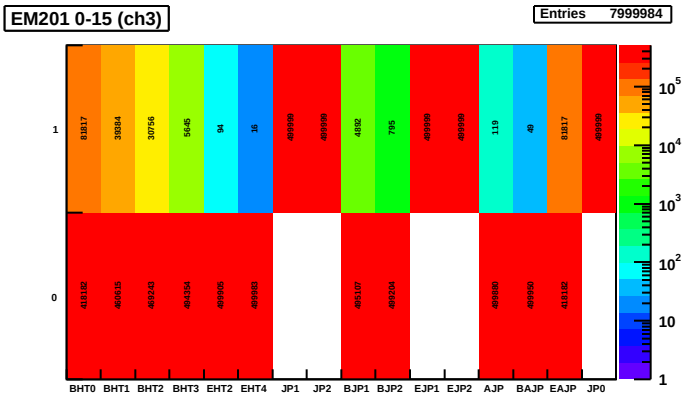

TF201 0-15 (ch0)
Entries 630
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

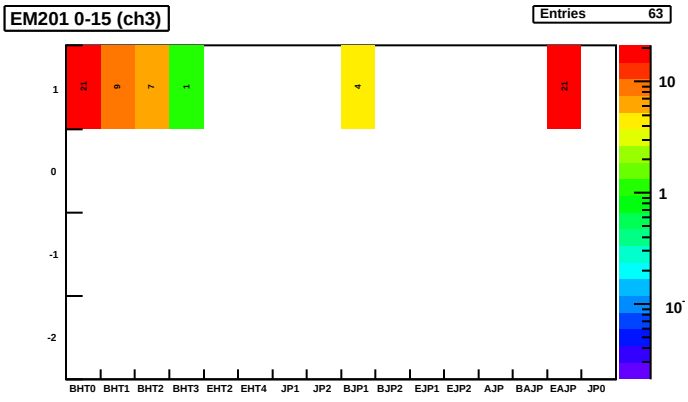

VT201 0-15 (ch1)
Entries 7999984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 2529
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

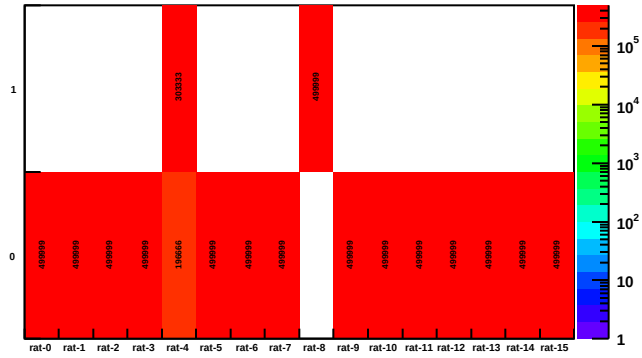

Unused (ch2)
Entries 7999984

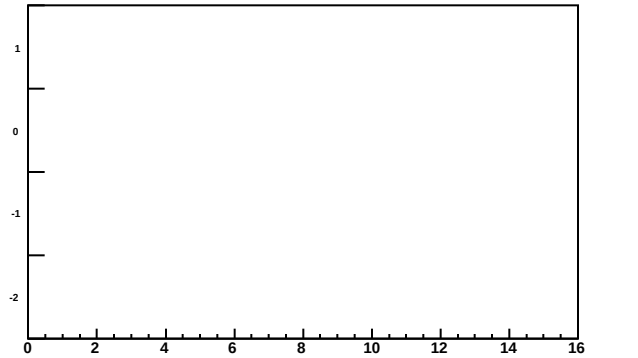

Entries 0


EM201 0-15 (ch3)
Entries 7999984
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

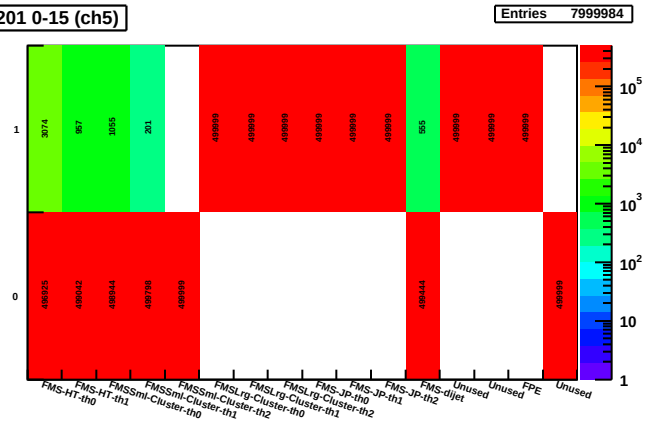

EM201 0-15 (ch3)
Entries 63
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

RAT board (ch4)





FP201 0-15 (ch5)



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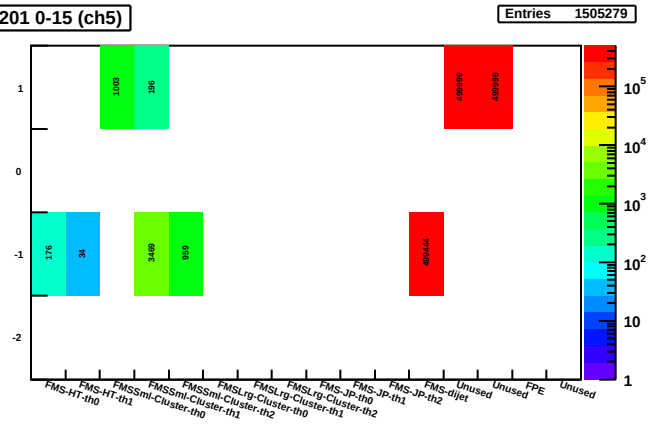

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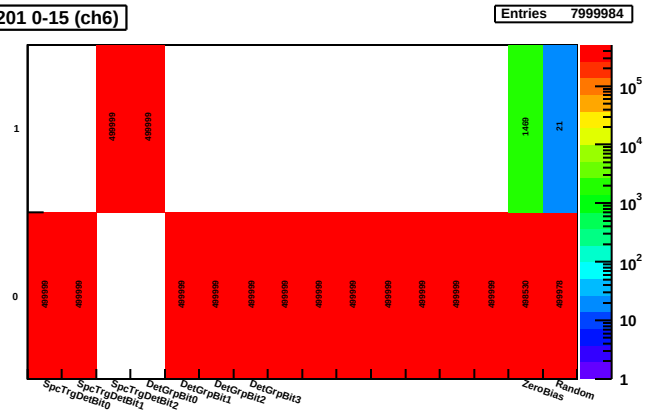

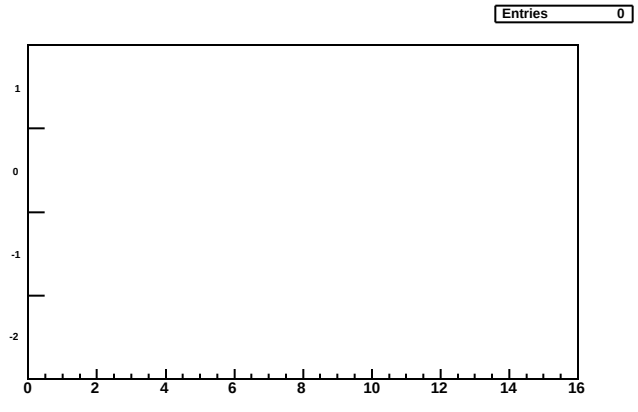
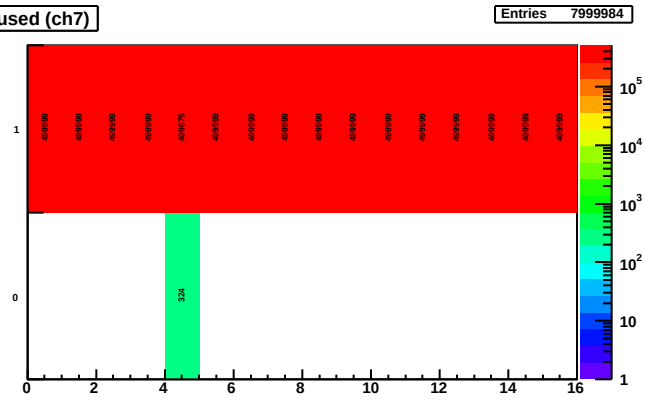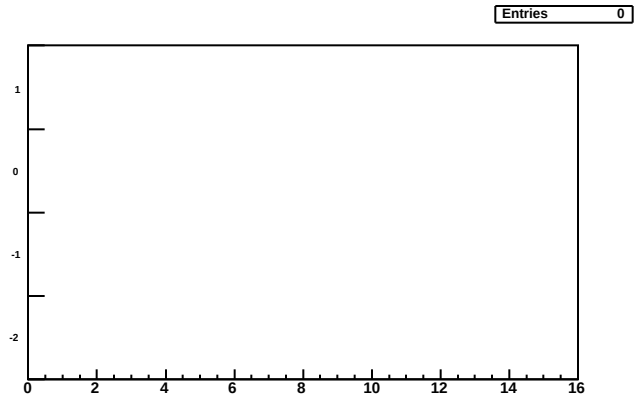
Unused (ch7)