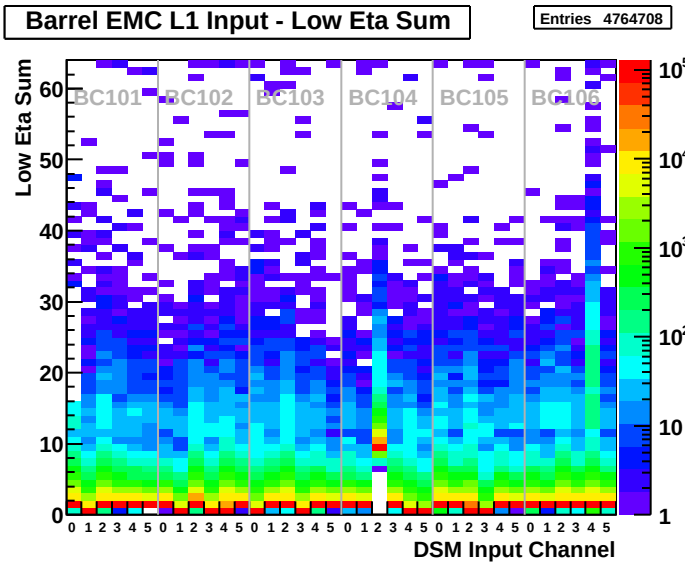
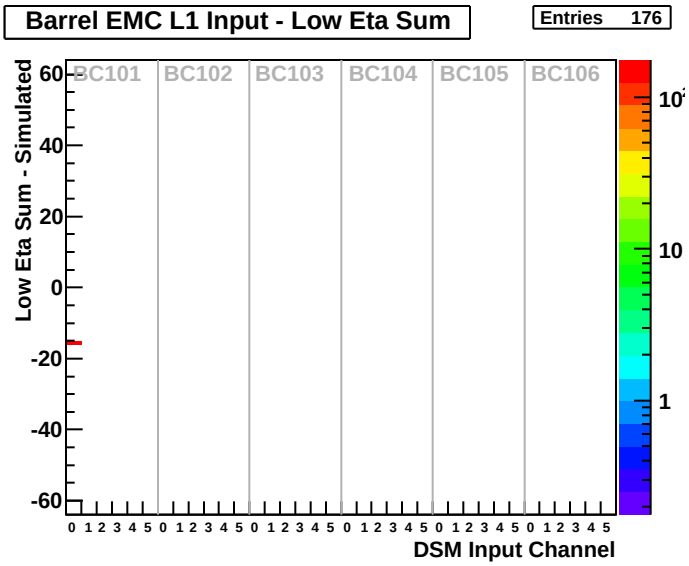
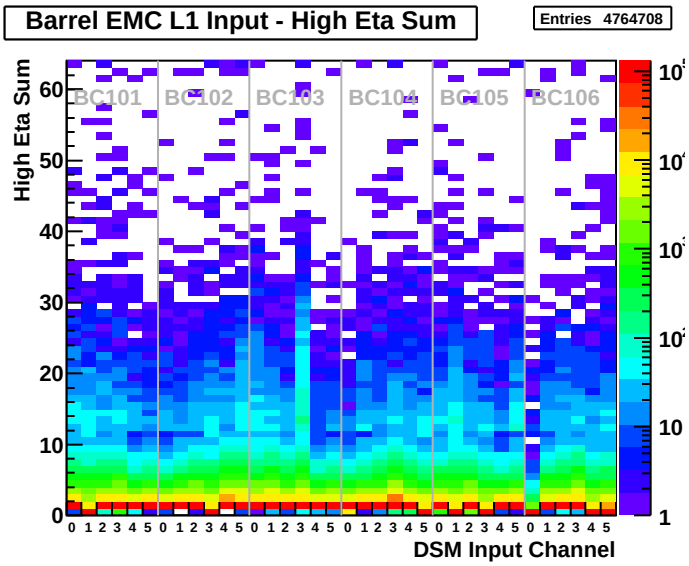
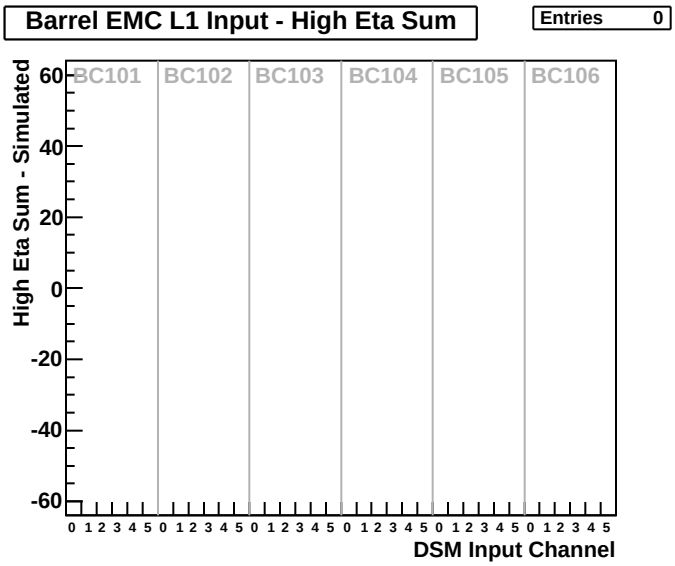
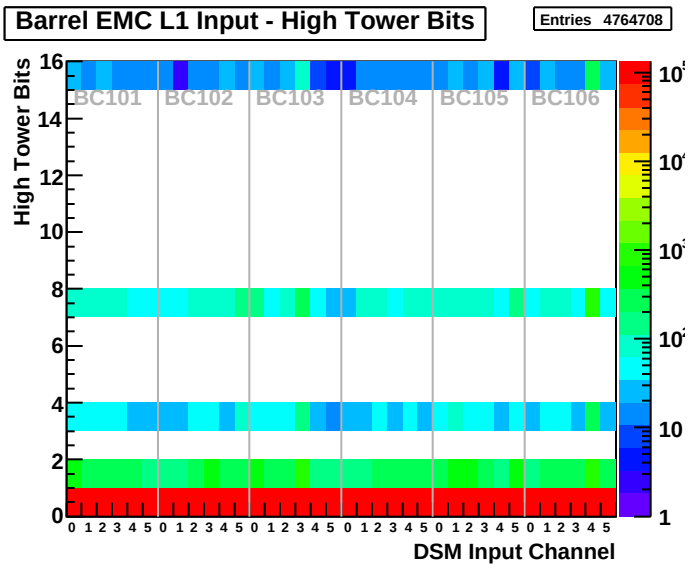
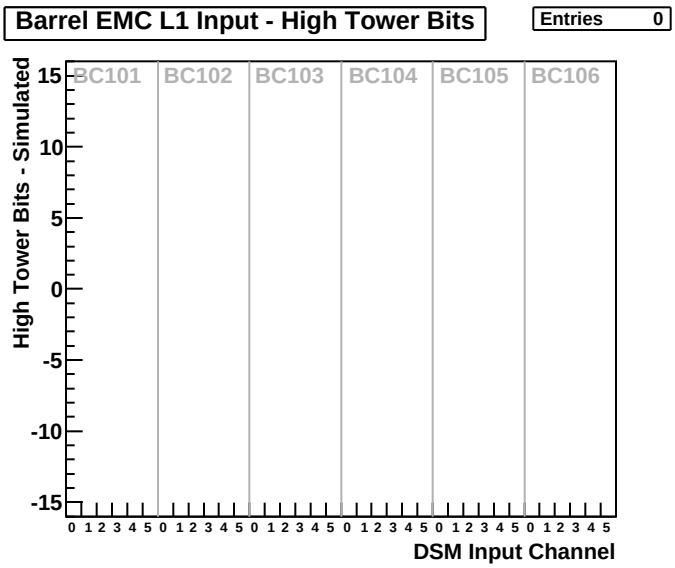

Barrel EMC L1 Input - Low Eta Sum
Entries 4764708
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

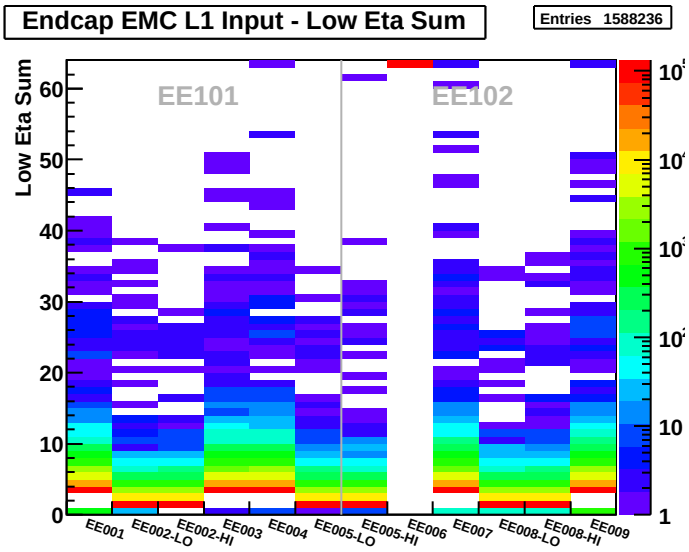

Barrel EMC L1 Input - Low Eta Sum
Entries 176
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

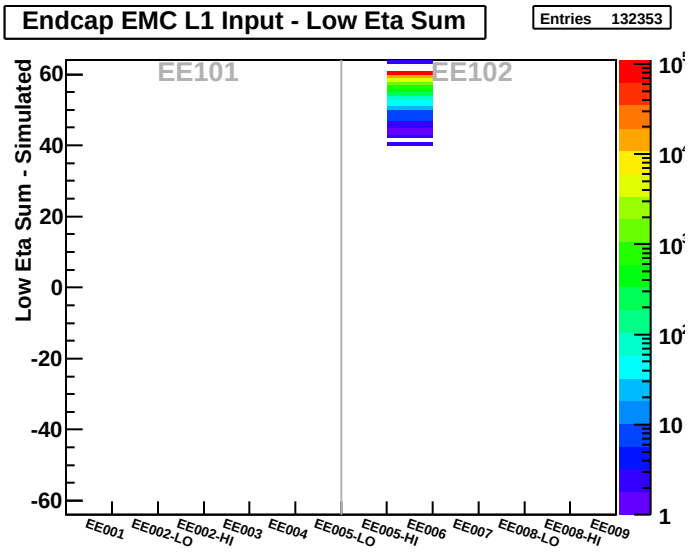

Barrel EMC L1 Input - High Eta Sum
Entries 4764708
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

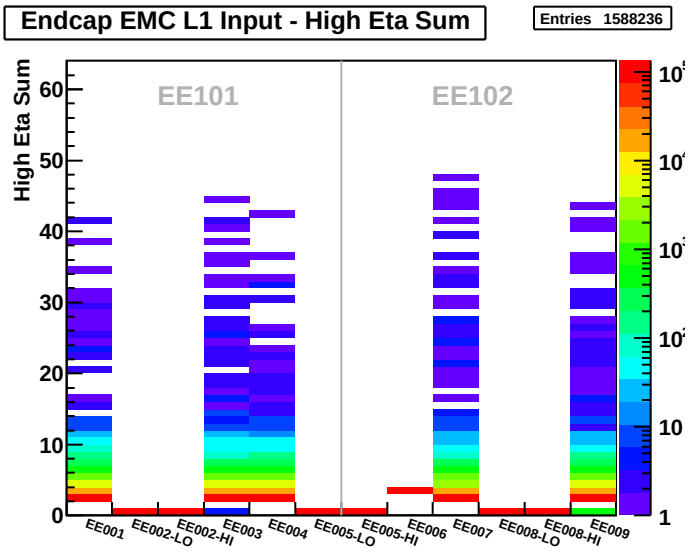

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

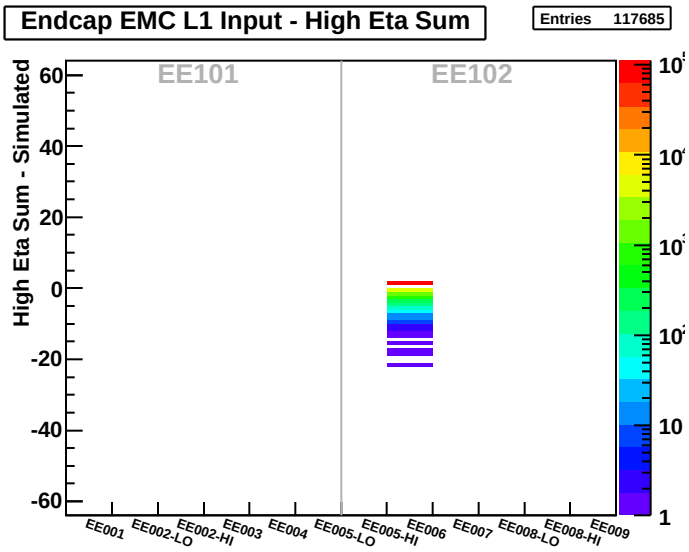

Barrel EMC L1 Input - High Tower Bits
Entries 4764708
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

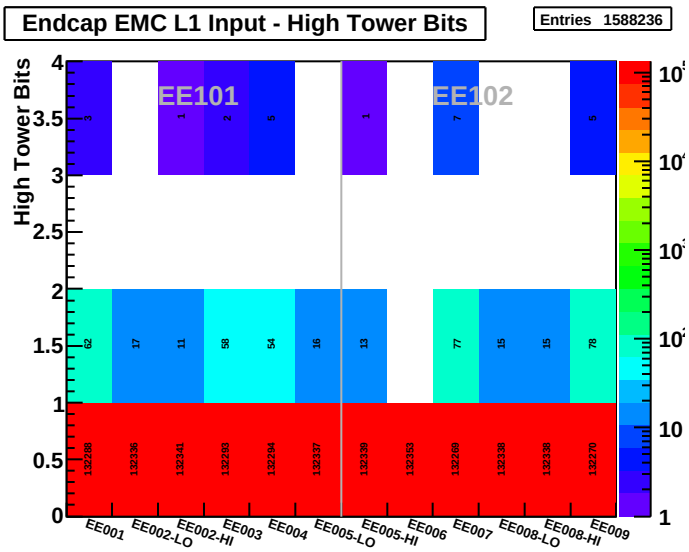

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

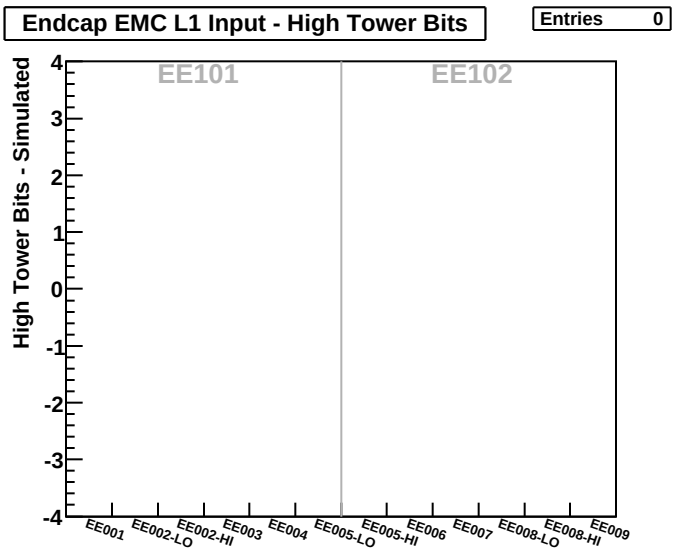

Endcap EMC L1 Input - Low Eta Sum
Entries 1588236
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

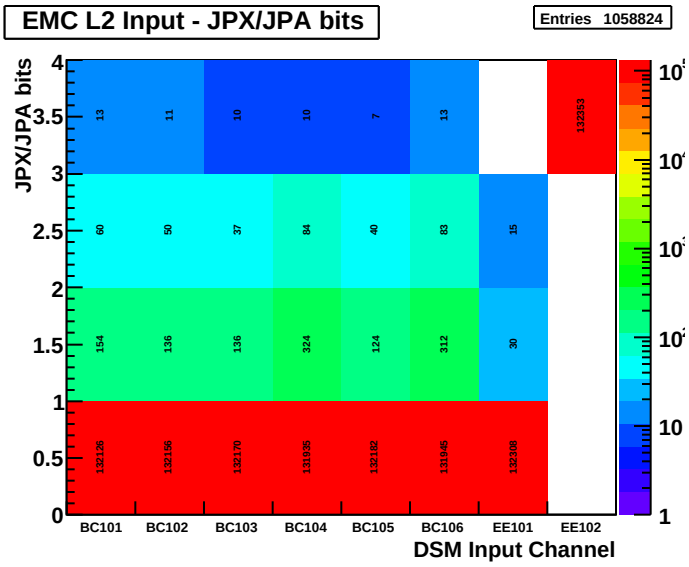

Endcap EMC L1 Input - Low Eta Sum
Entries 132353
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

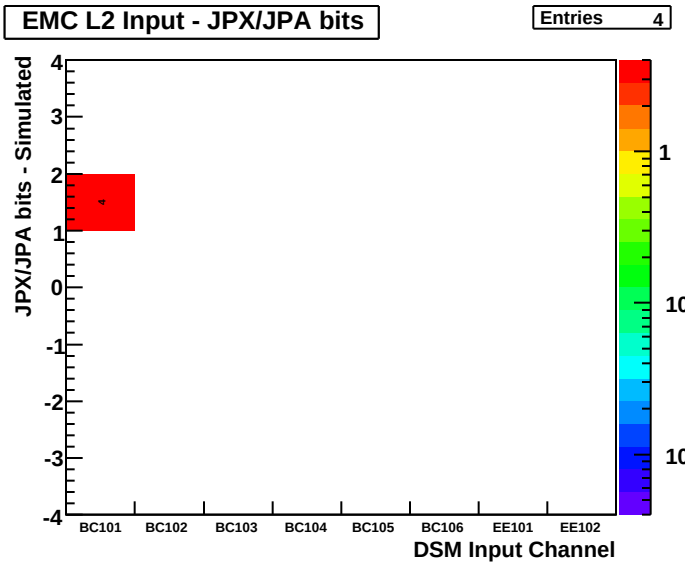

Endcap EMC L1 Input - High Eta Sum
Entries 1588236
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

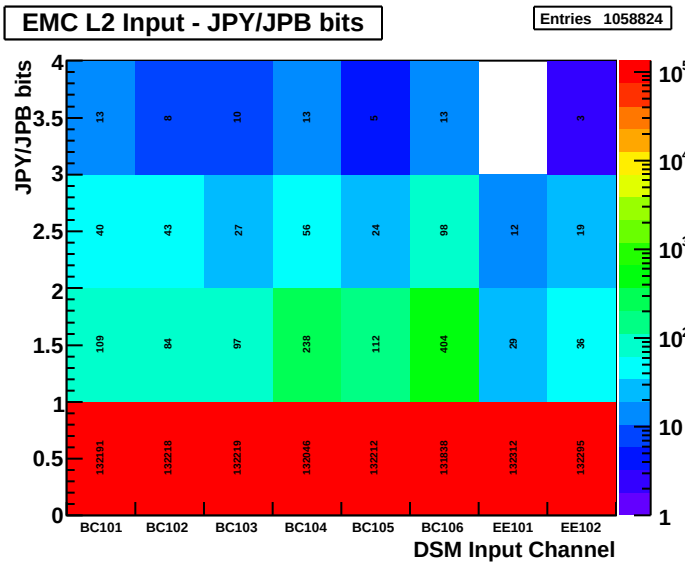

Endcap EMC L1 Input - High Eta Sum
Entries 117685
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

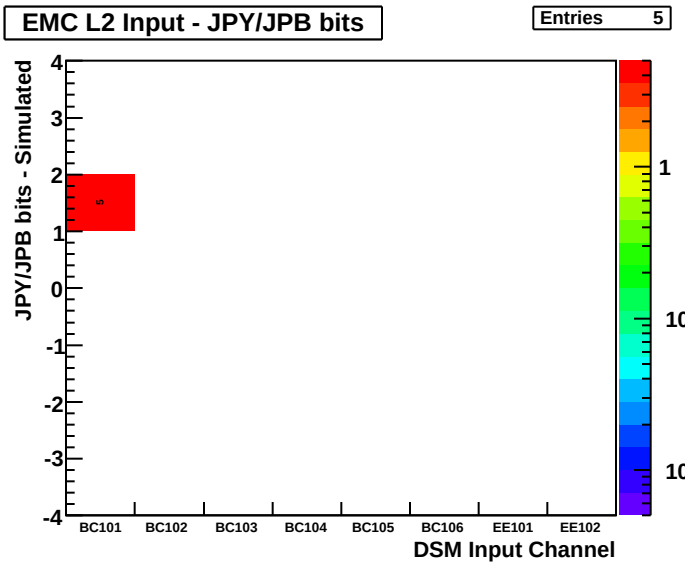

Endcap EMC L1 Input - High Tower Bits
Entries 1588236
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

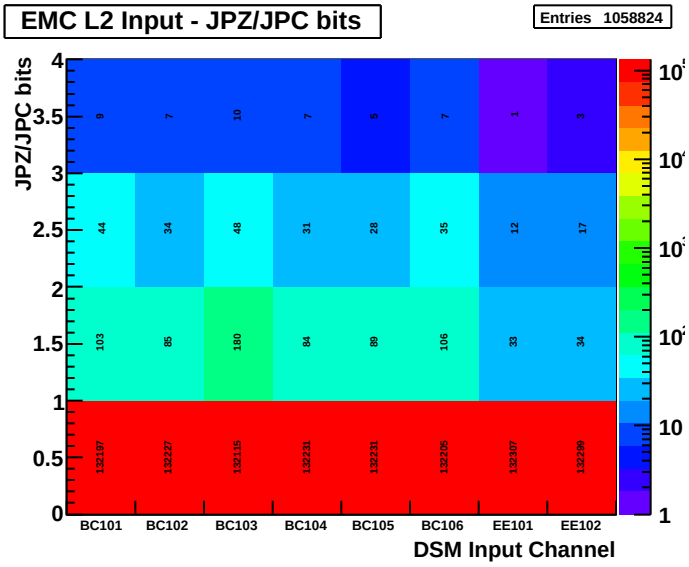

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

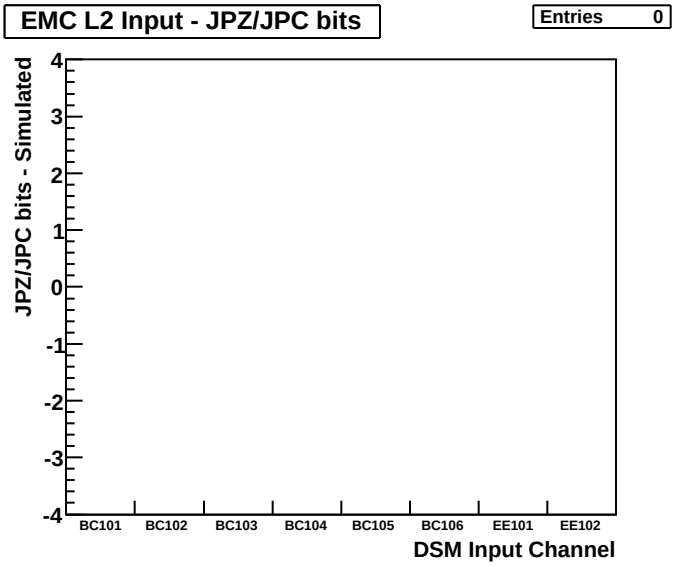

EMC L2 Input - JPX/JPA bits
Entries 1058824
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

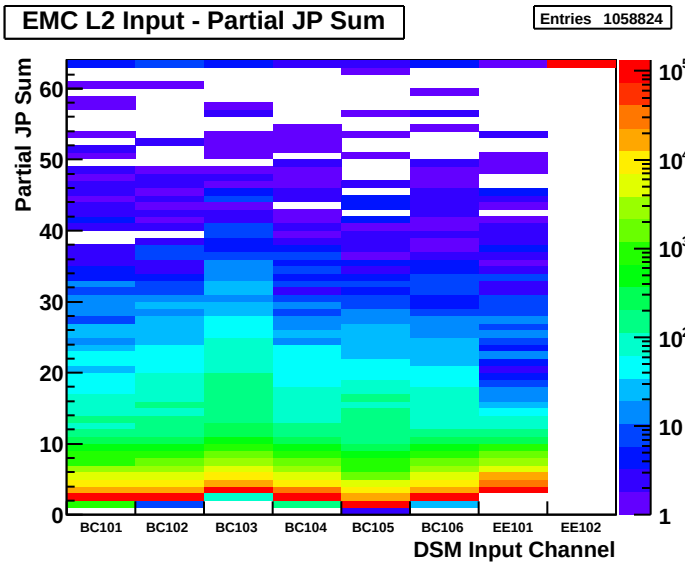

EMC L2 Input - JPX/JPA bits
Entries 4
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

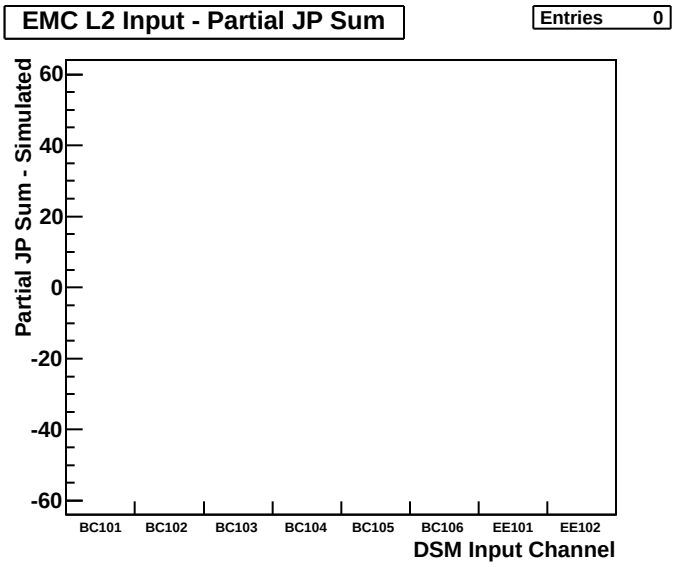

EMC L2 Input - JPY/JPB bits
Entries 1058824
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

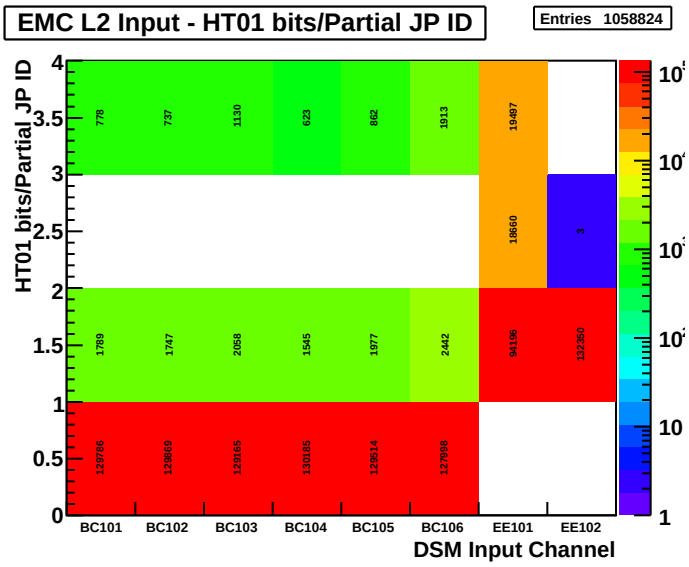

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

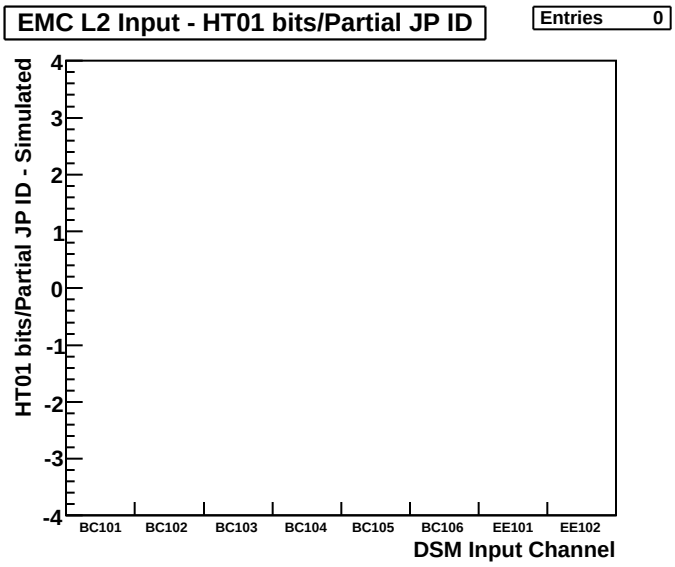

EMC L2 Input - JPZ/JPC bits
Entries 1058824
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

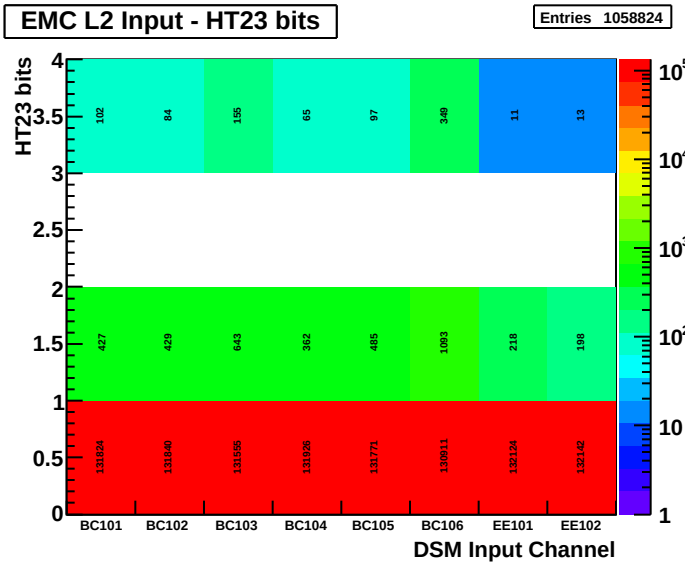

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

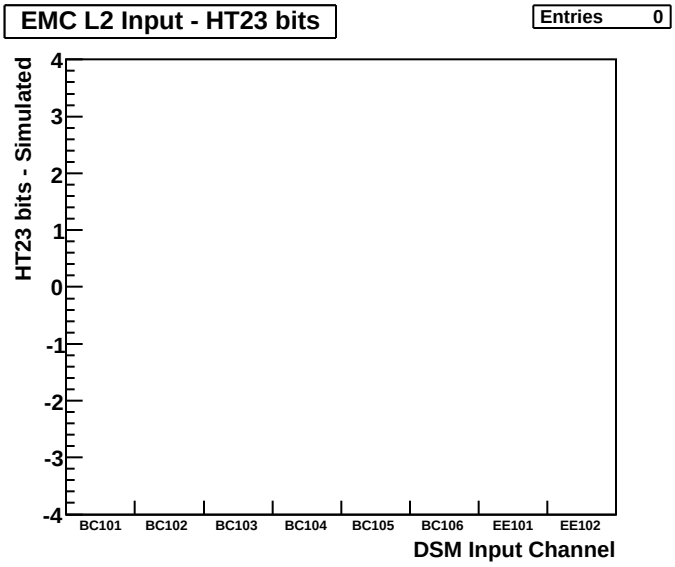

EMC L2 Input - Partial JP Sum
Entries 1058824
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

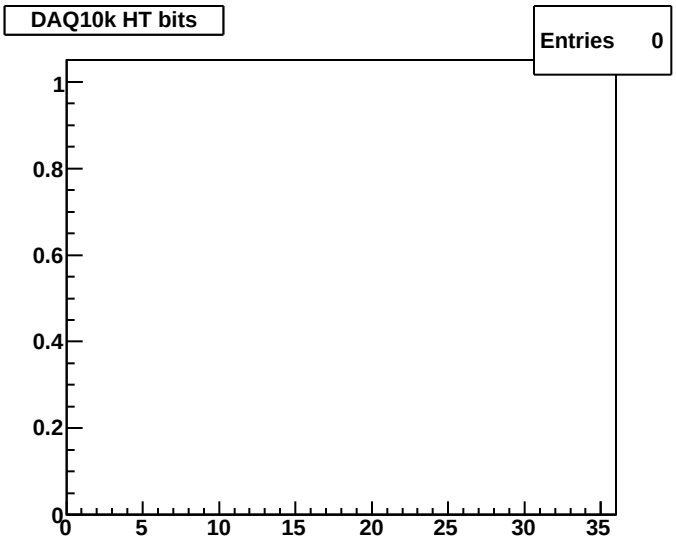

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

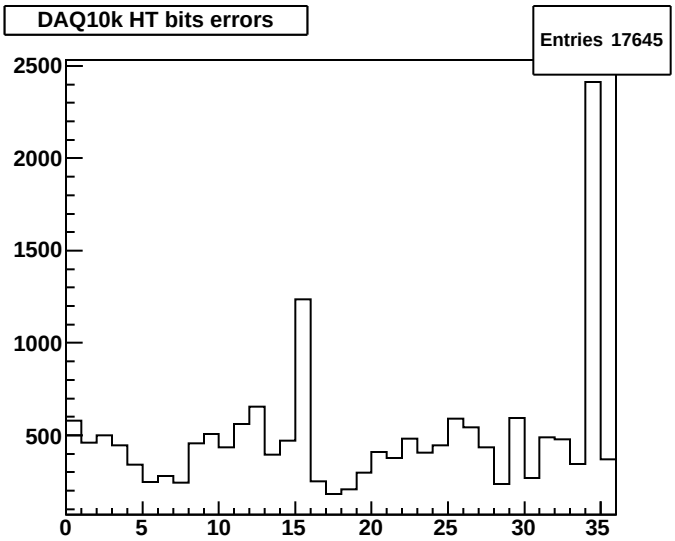

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1058824
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

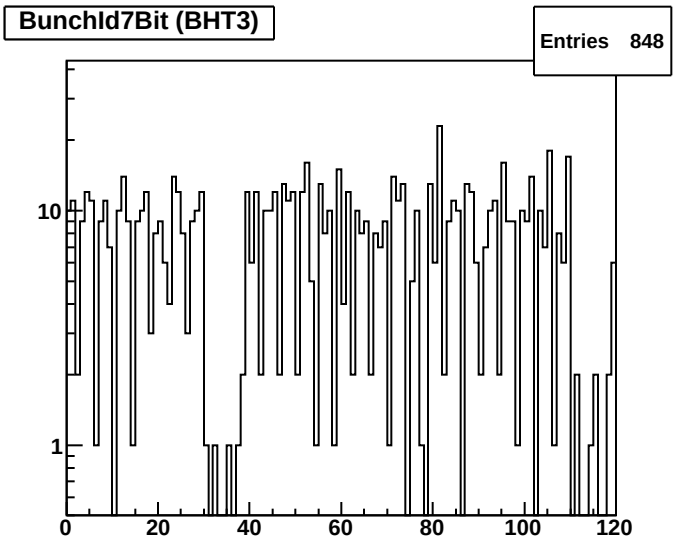

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

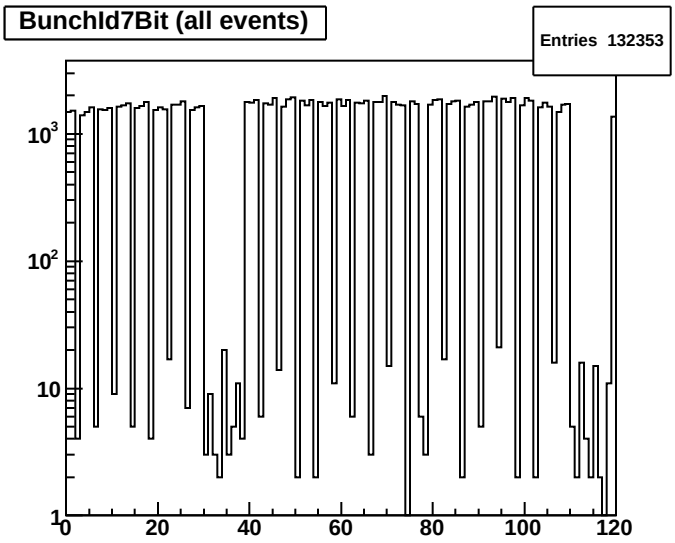

EMC L2 Input - HT23 bits
Entries 1058824
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

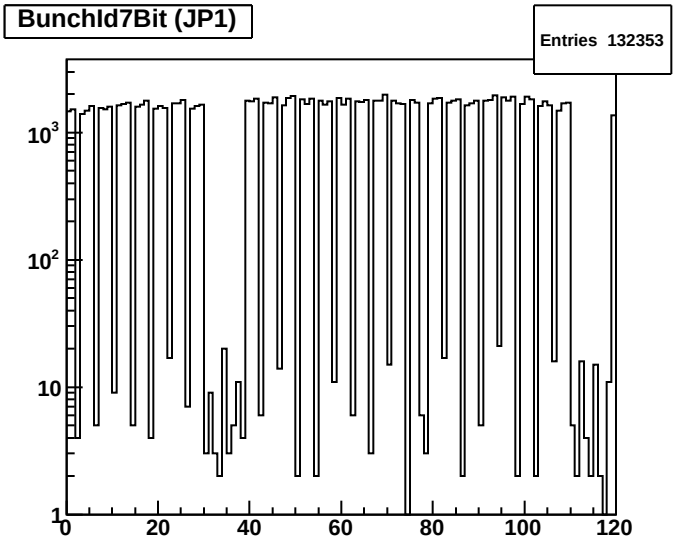

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

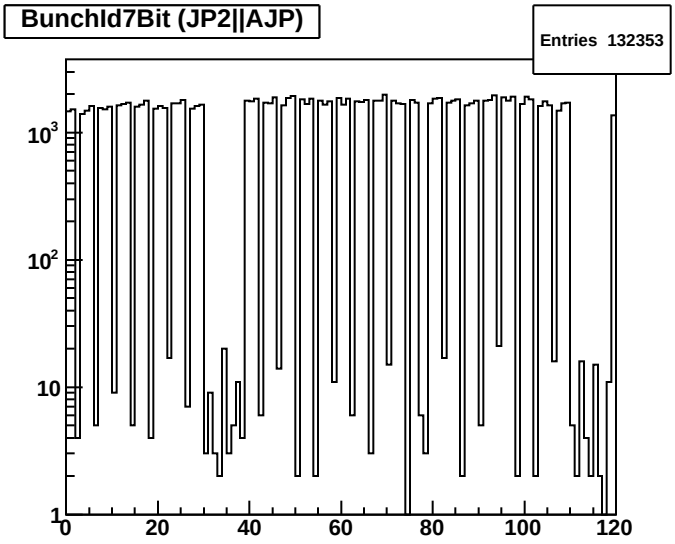

DAQ10k HT bits
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

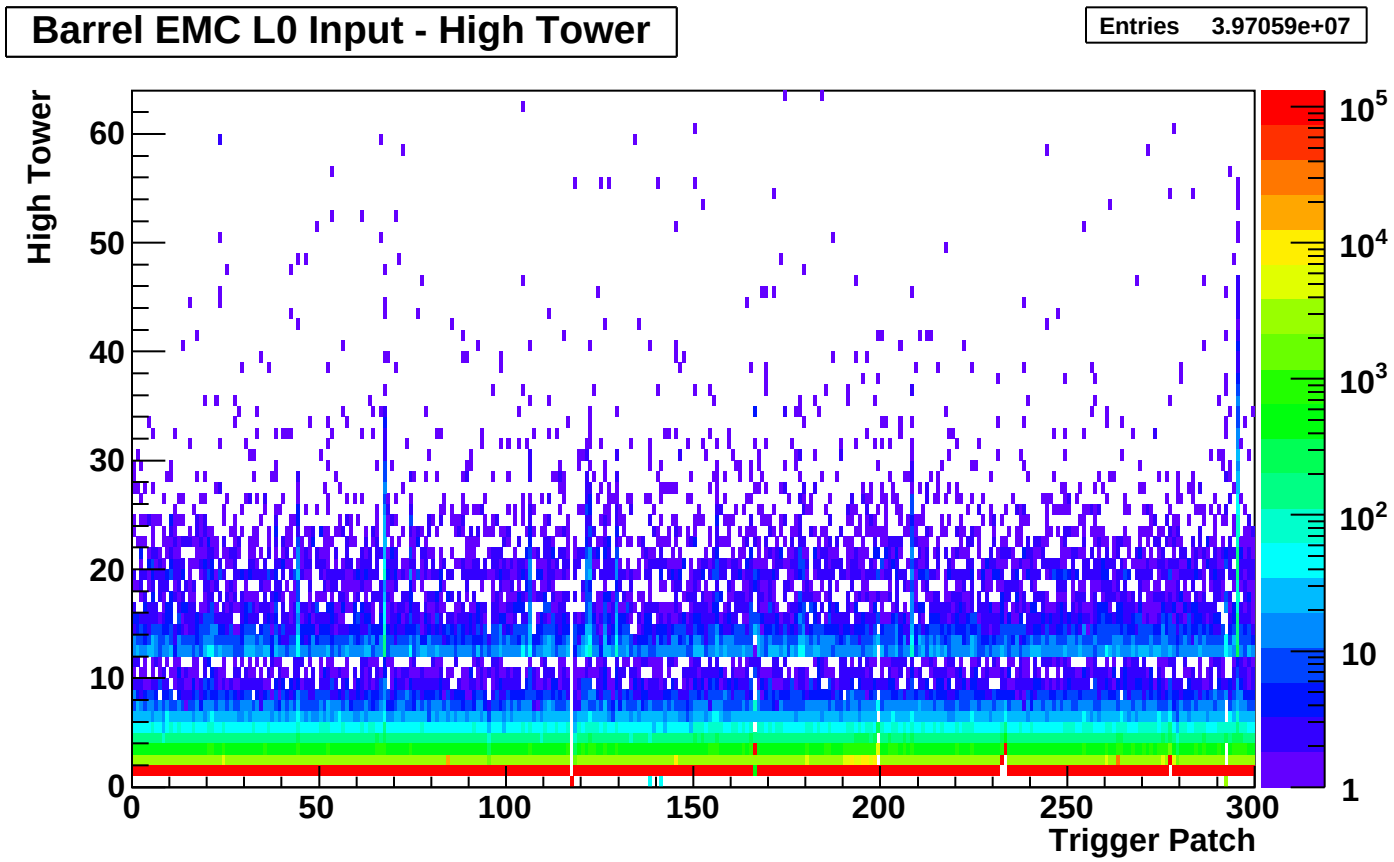

DAQ10k HT bits errors
Entries 17645
2500
2000
1500
1000
500
0 5 10 15 20 25 30 35

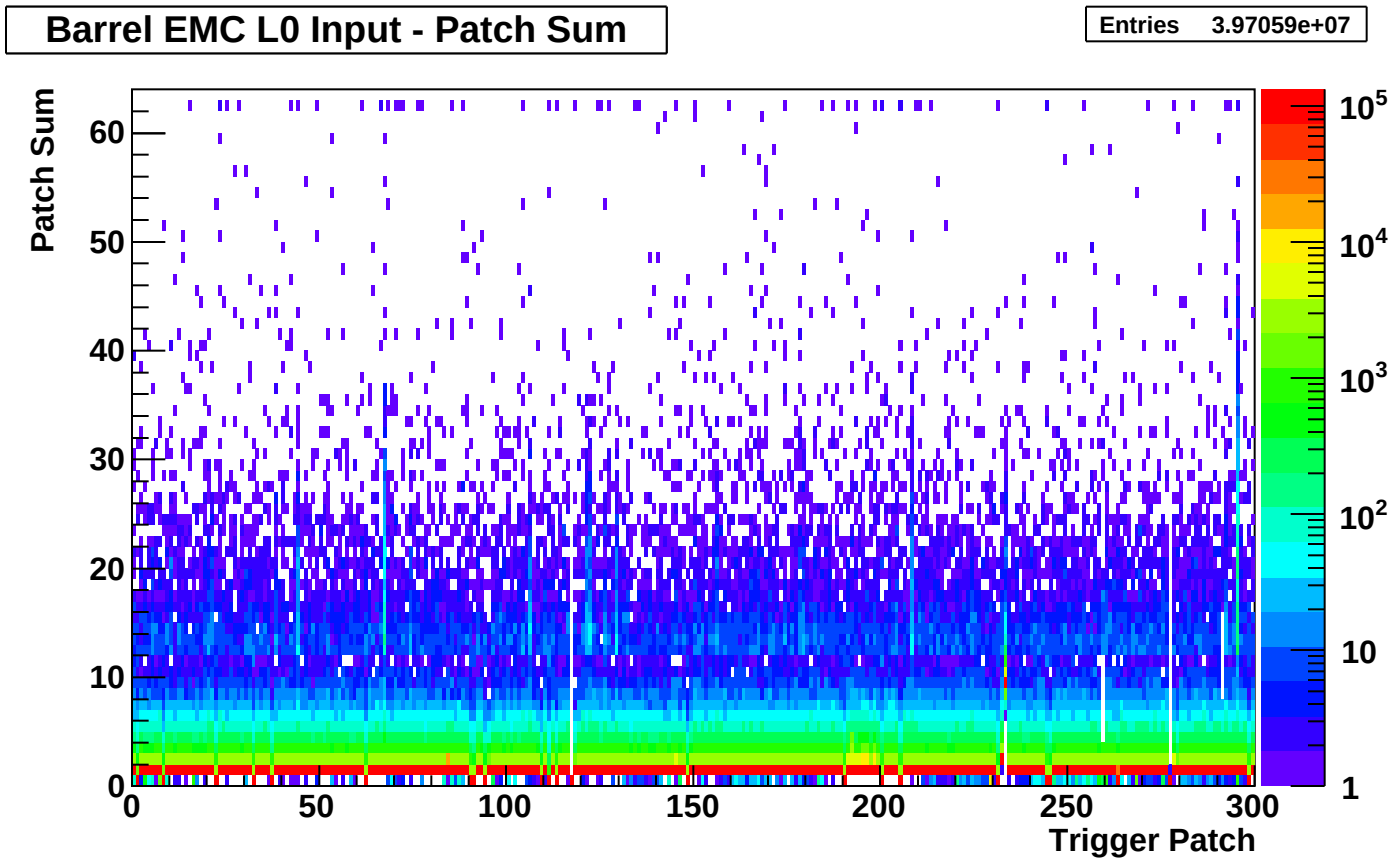

BunchId7Bit (BHT3)
Entries 848
10
1
0 20 40 60 80 100 120

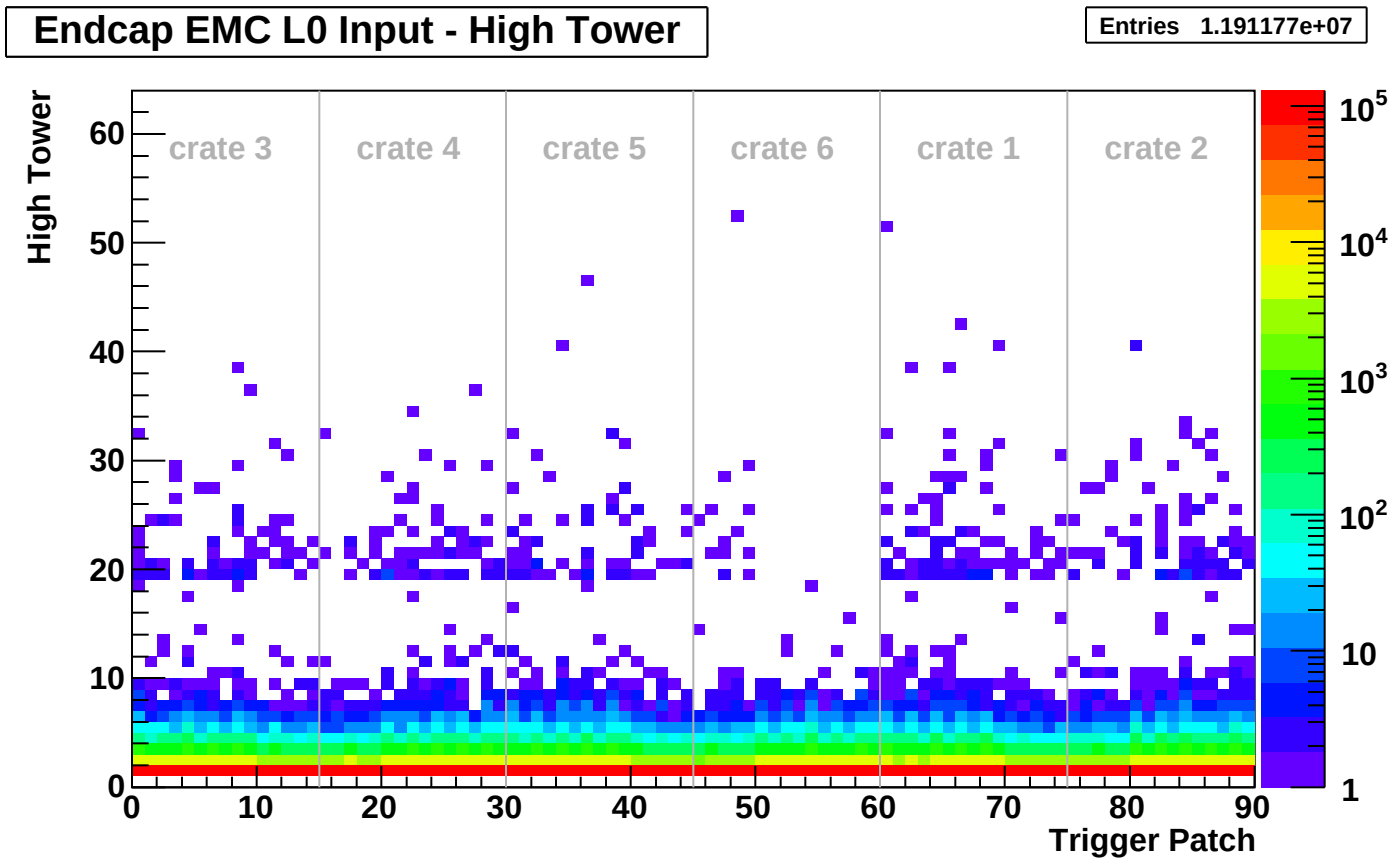

BunchId7Bit (all events)
Entries 132353
10^3
10^2
10
1
0 20 40 60 80 100 120

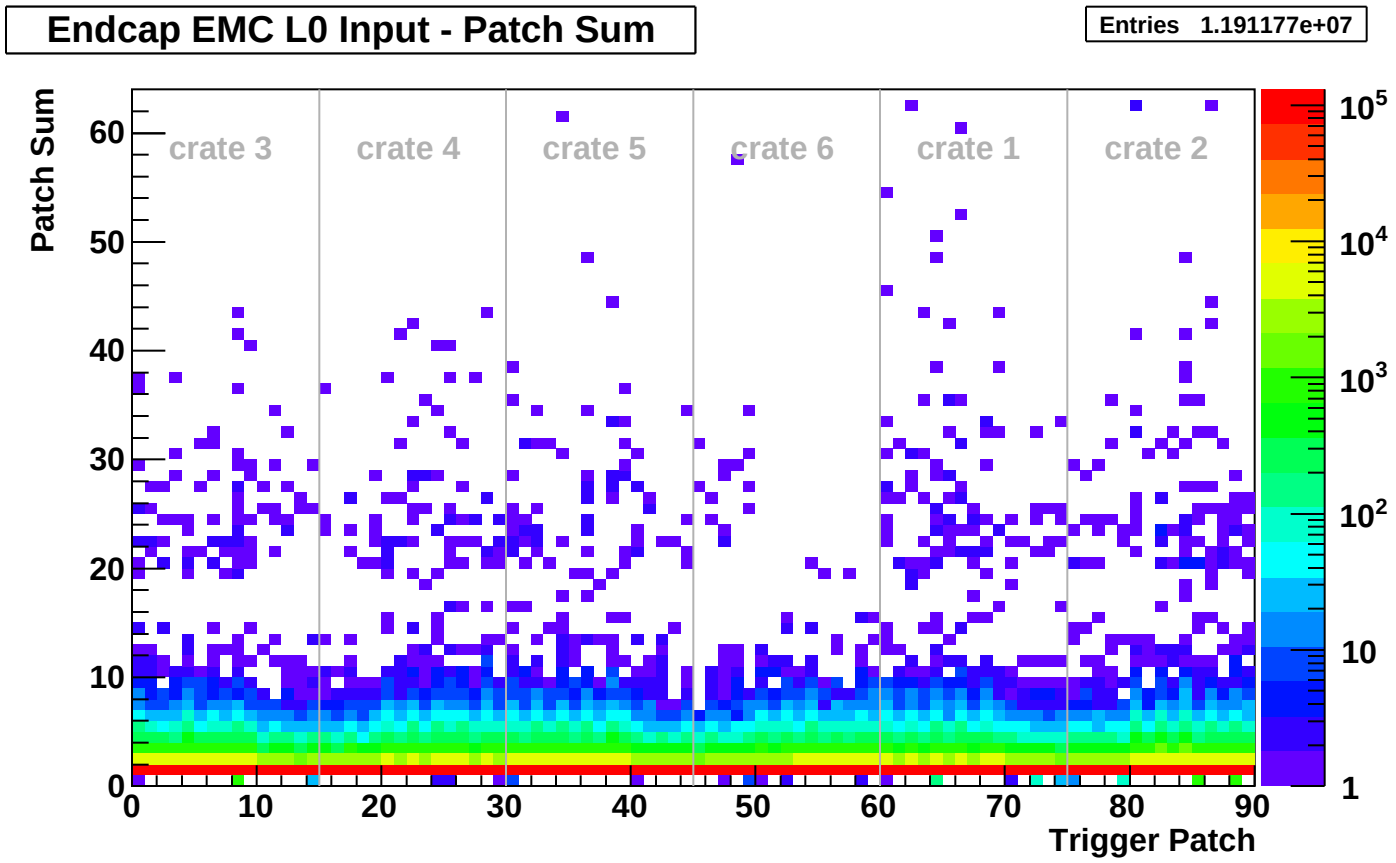

BunchId7Bit (JP1)
Entries 132353
10^3
10^2
10
1
0 20 40 60 80 100 120

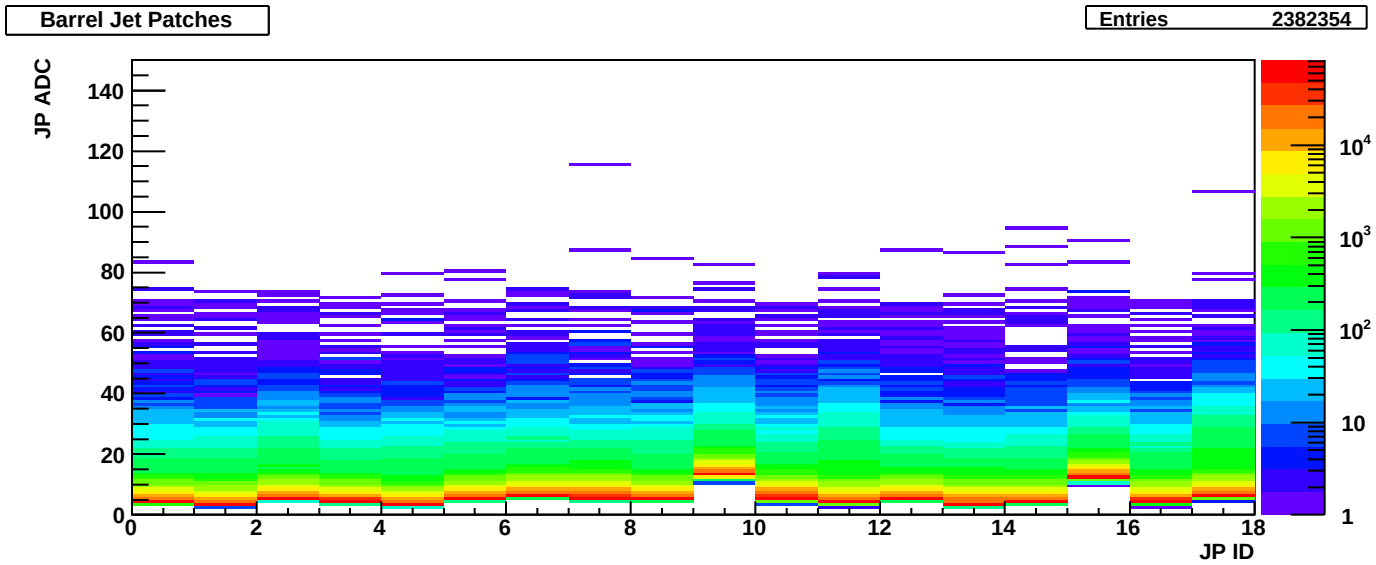

BunchId7Bit (JP2||AJP)
Entries 132353
10^3
10^2
10
1
0 20 40 60 80 100 120

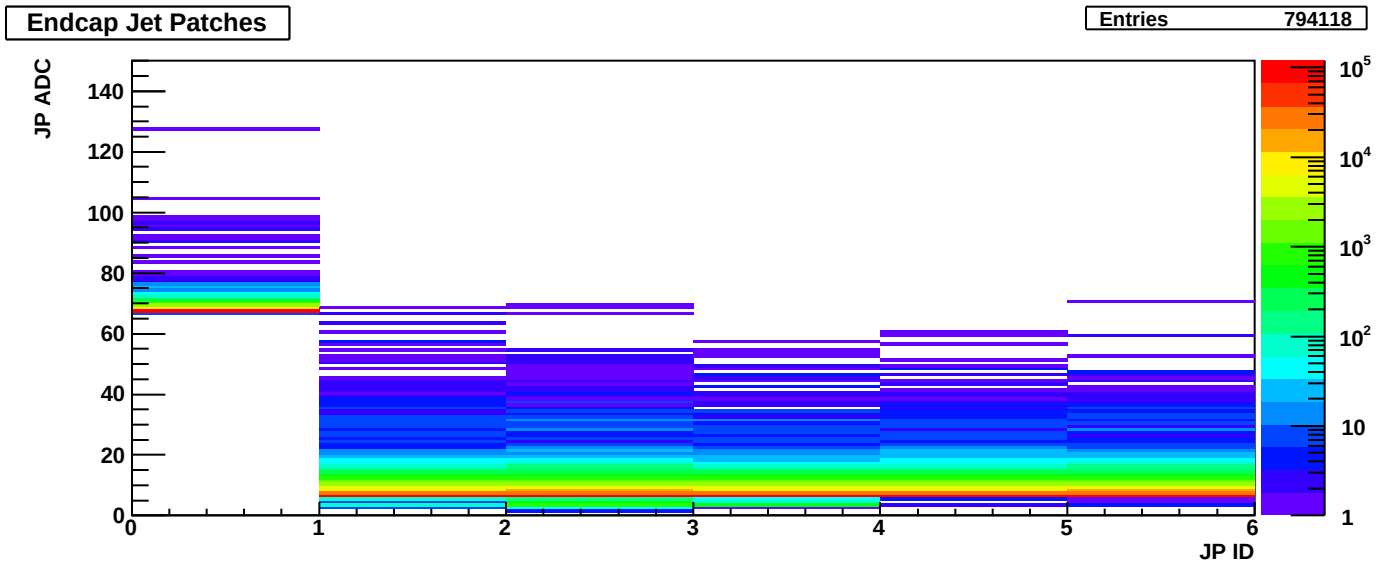

Barrel EMC L0 Input - High Tower
Entries 3.97059e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

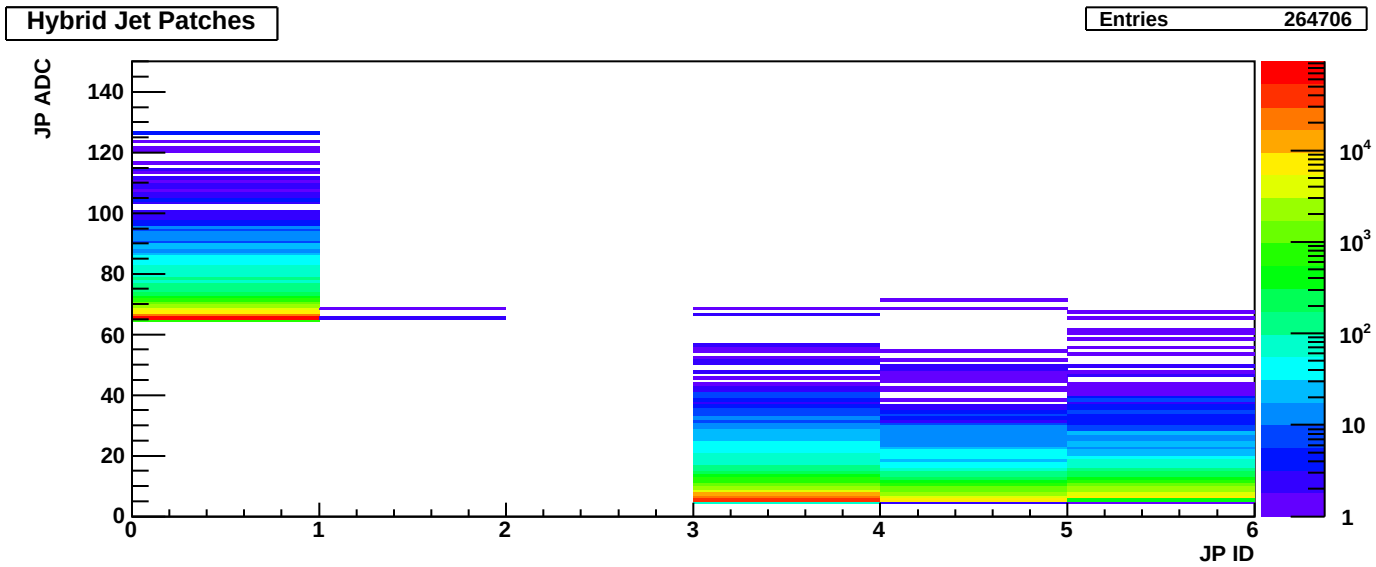

Barrel EMC L0 Input - Patch Sum
Entries 3.97059e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

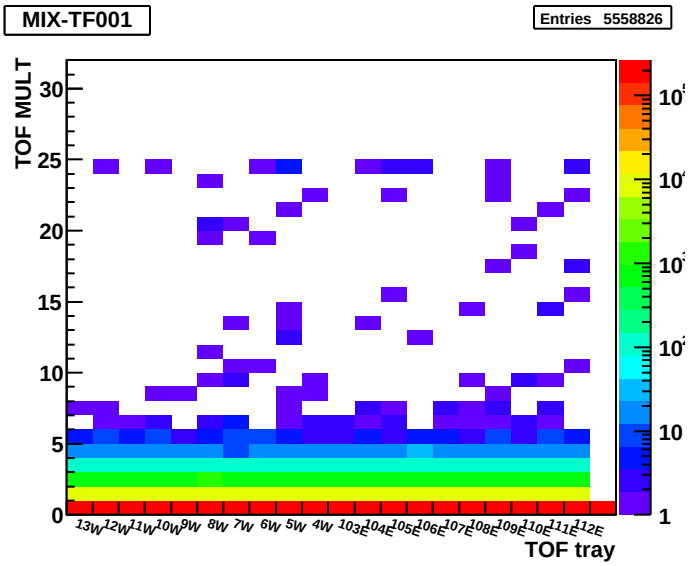

Endcap EMC L0 Input - High Tower
Entries 1.191177e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

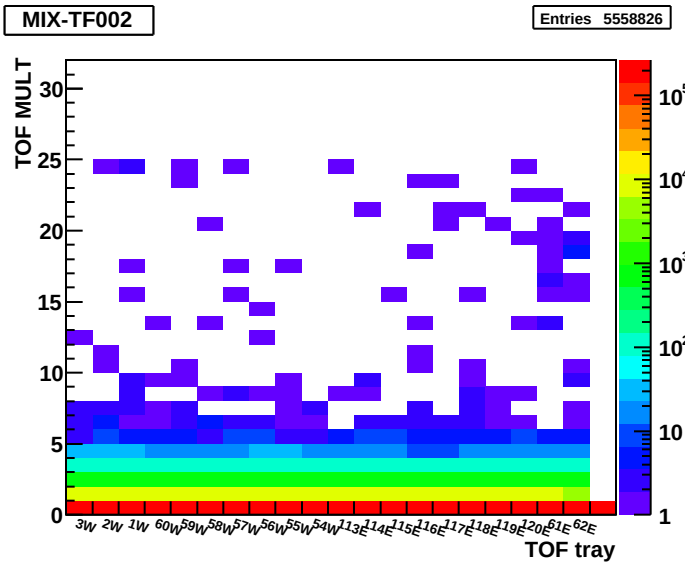

Endcap EMC L0 Input - Patch Sum
Entries 1.191177e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

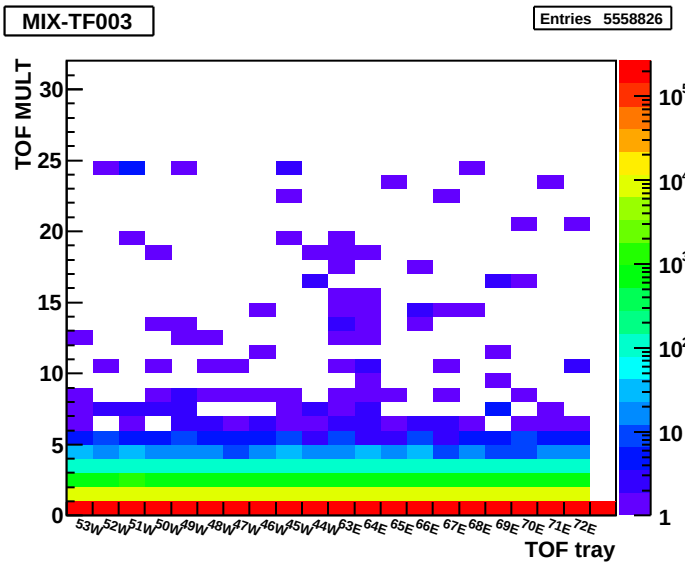

Barrel Jet Patches
Entries 2382354
JP ADC
JP ID

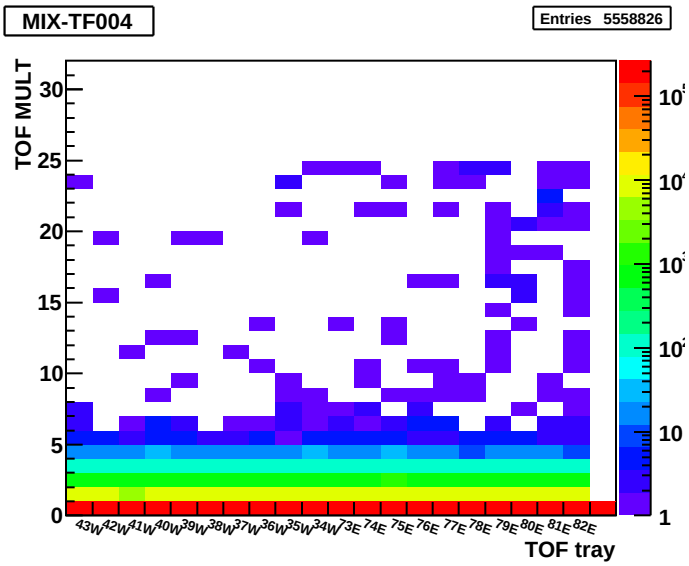

Endcap Jet Patches
Entries 794118
JP ADC
JP ID

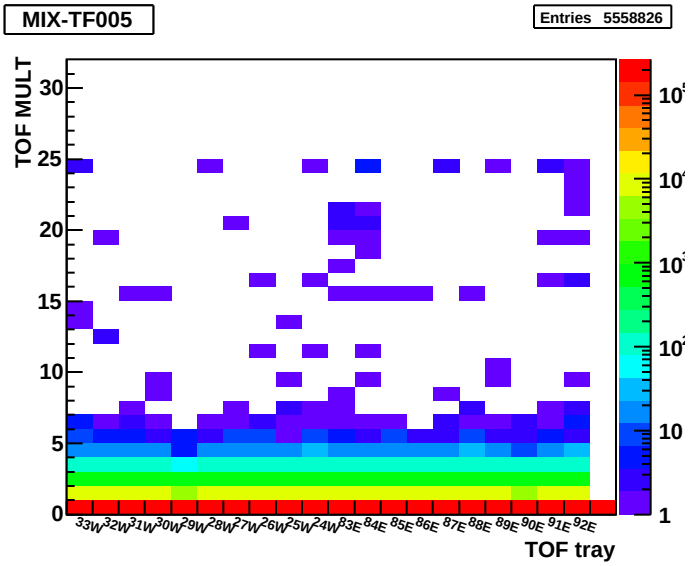

Hybrid Jet Patches
Entries 264706
JP ADC
JP ID

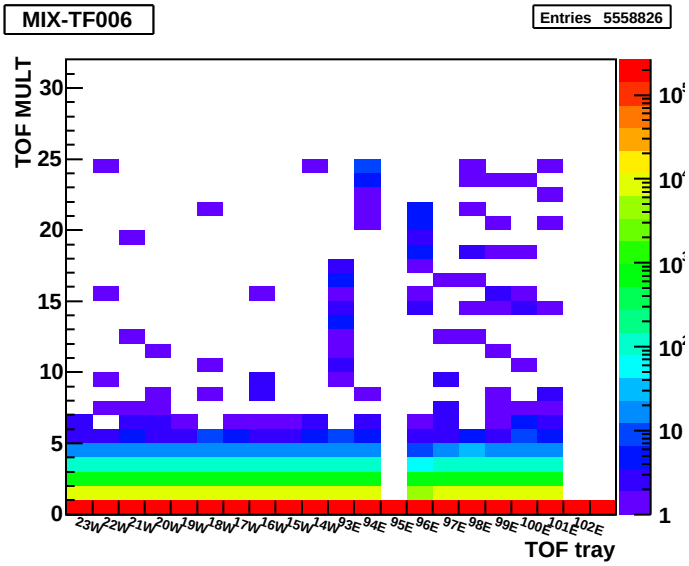

MIX-TF001
Entries 5558826
TOF MULT
TOF tray

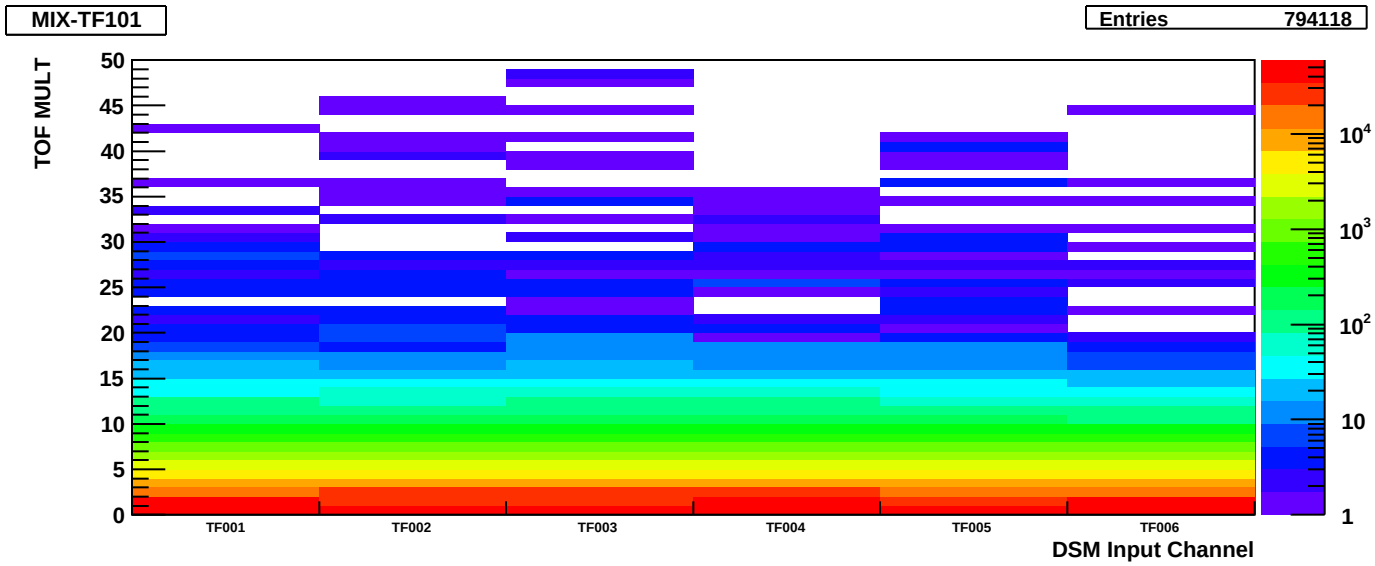

MIX-TF002
Entries 5558826
TOF MULT
TOF tray

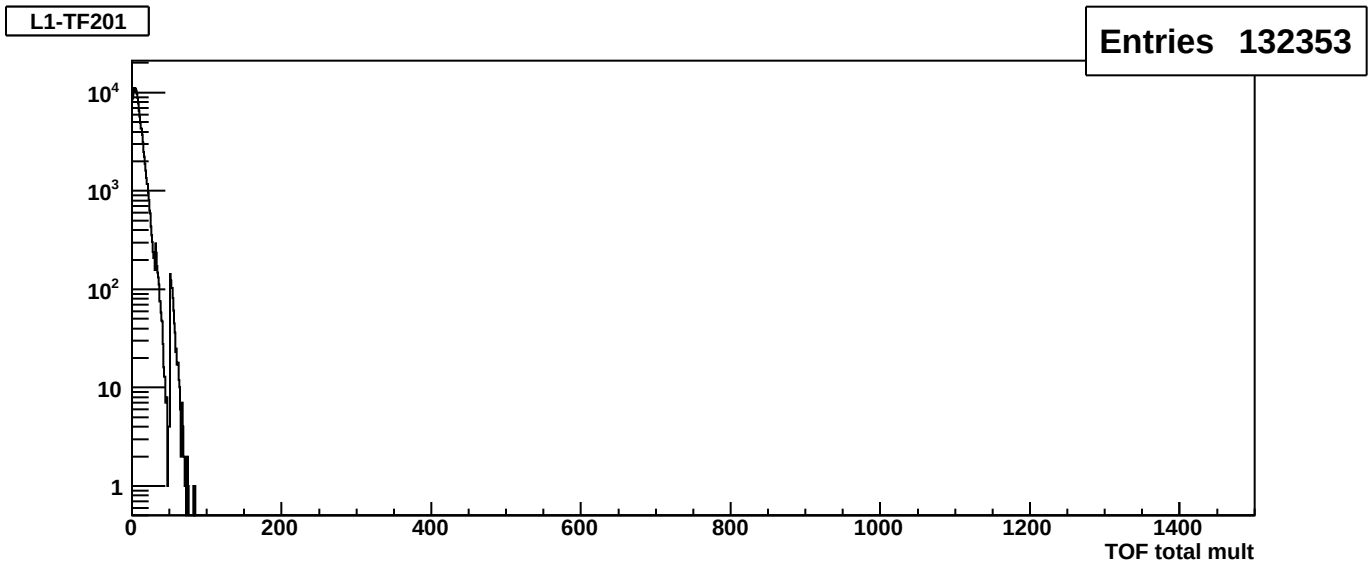

MIX-TF003
Entries 5558826
TOF MULT
TOF tray

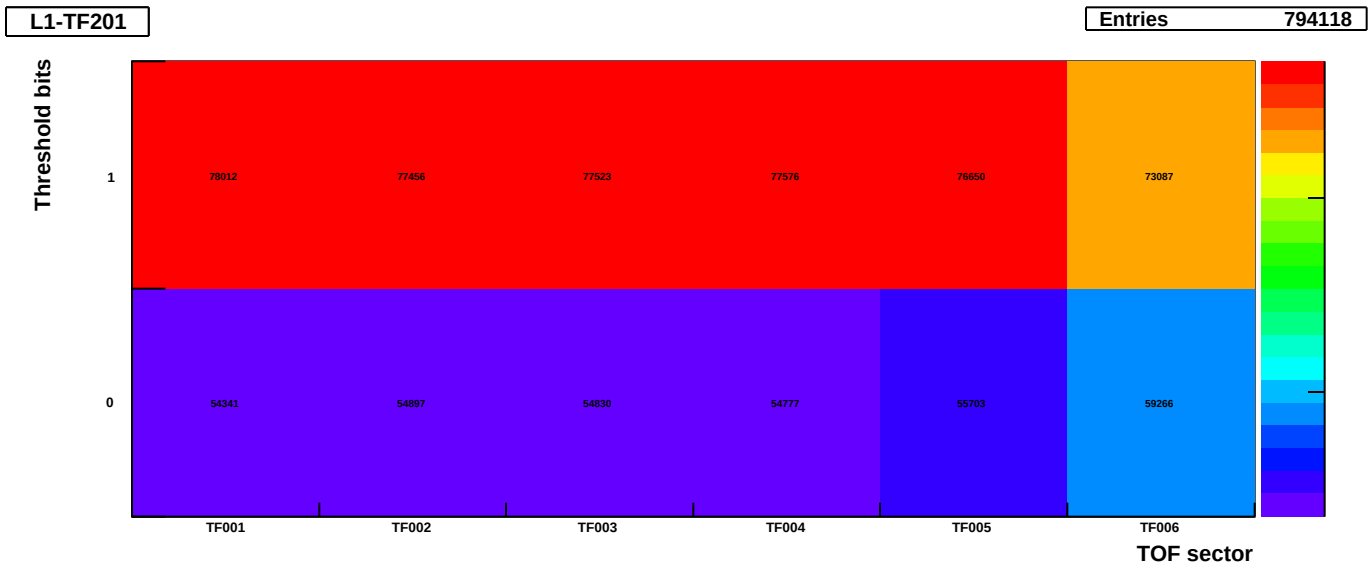

MIX-TF004
Entries 5558826
TOF MULT
TOF tray

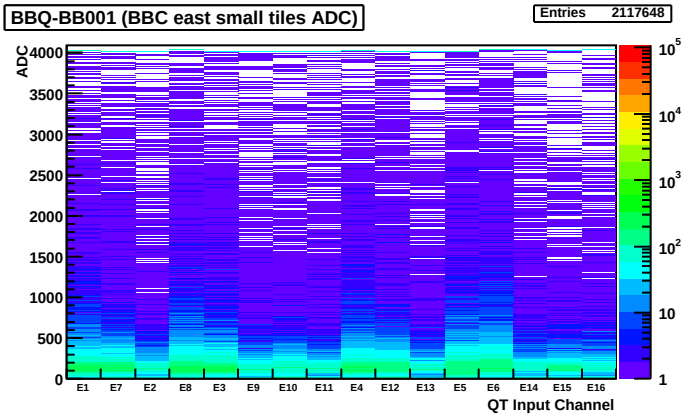

MIX-TF005
Entries 5558826
TOF MULT
TOF tray

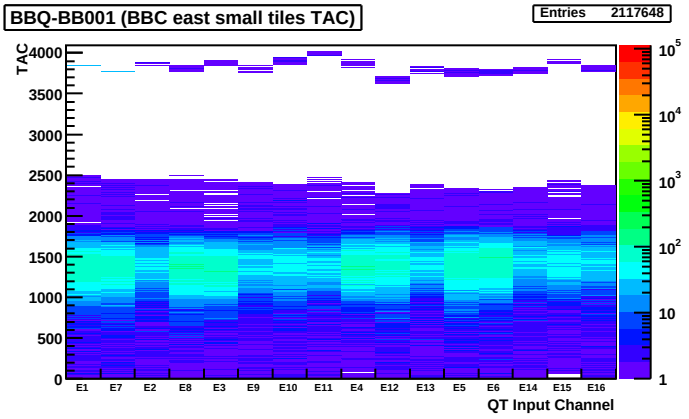

MIX-TF006
Entries 5558826
TOF MULT
TOF tray

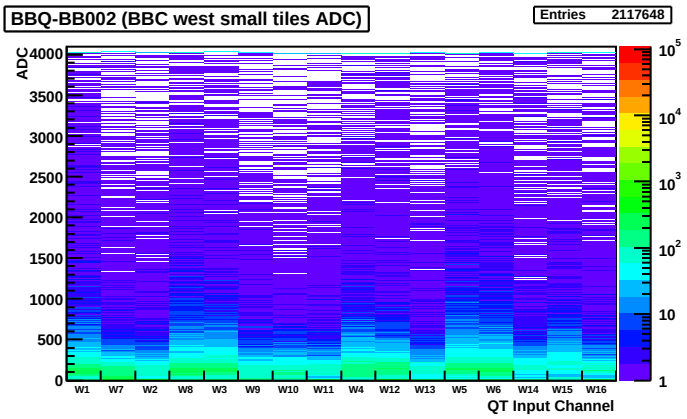

MIX-TF101
Entries 794118
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

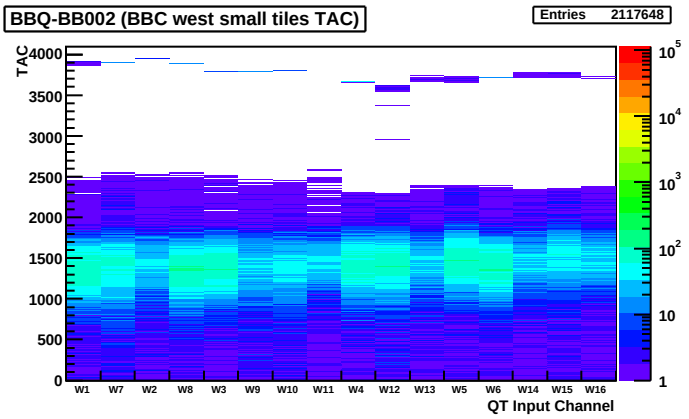

L1-TF201
Entries 132353
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
TOF total mult

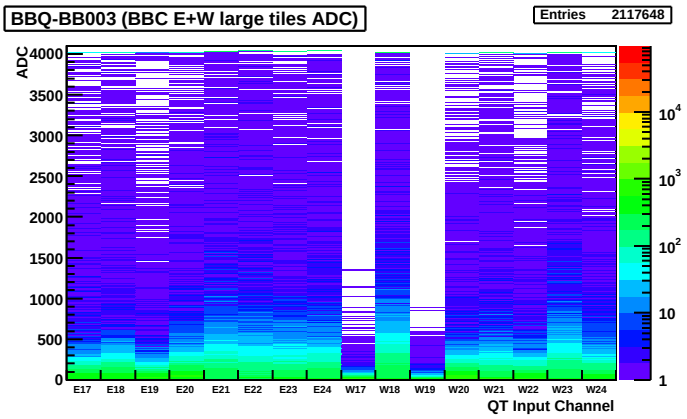

L1-TF201
Entries 794118
Threshold bits
1
0
78012
77456
77523
77576
76650
73087
54341
54897
54830
54777
55703
59266
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

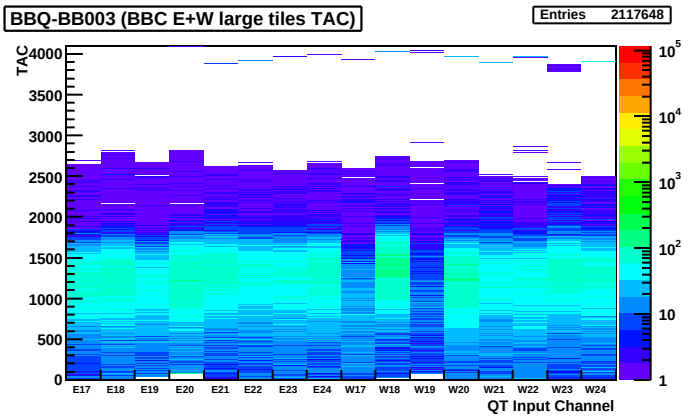

BBQ-BB001 (BBC east small tiles ADC)
Entries 2117648
ADC
QT Input Channel

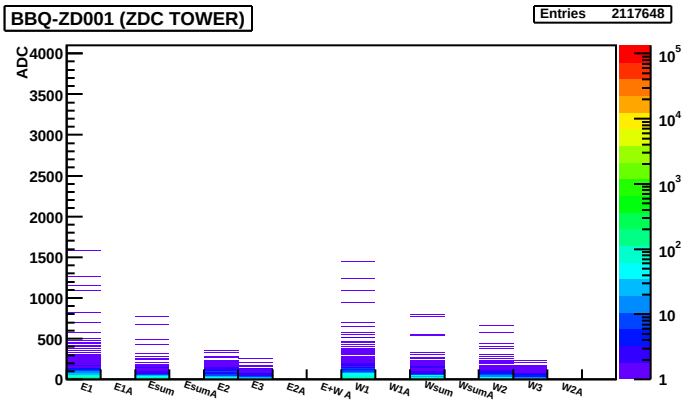

BBQ-BB001 (BBC east small tiles TAC)
Entries 2117648
TAC
QT Input Channel

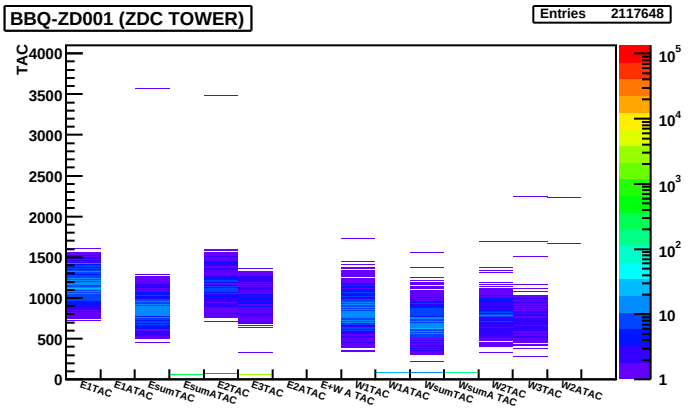

BBQ-BB002 (BBC west small tiles ADC)
Entries 2117648
ADC
QT Input Channel

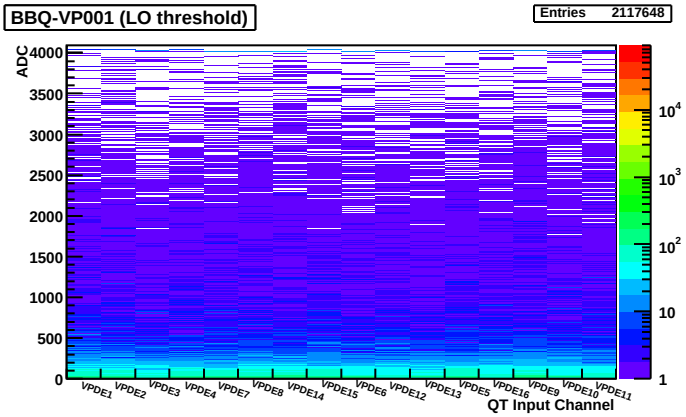

BBQ-BB002 (BBC west small tiles TAC)
Entries 2117648
TAC
QT Input Channel

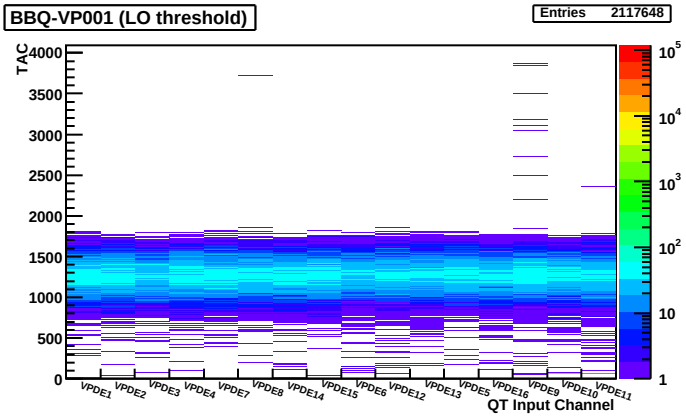

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2117648
ADC
QT Input Channel

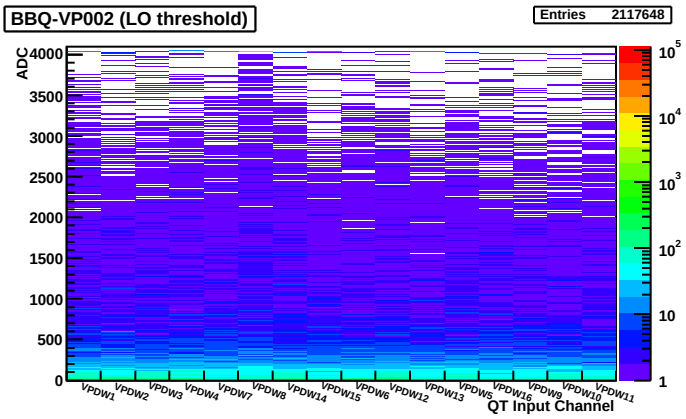

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2117648
TAC
QT Input Channel

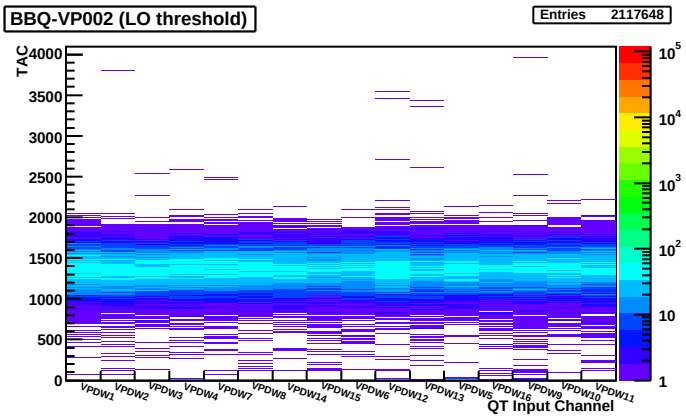

BBQ-ZD001 (ZDC TOWER)
Entries 2117648
ADC

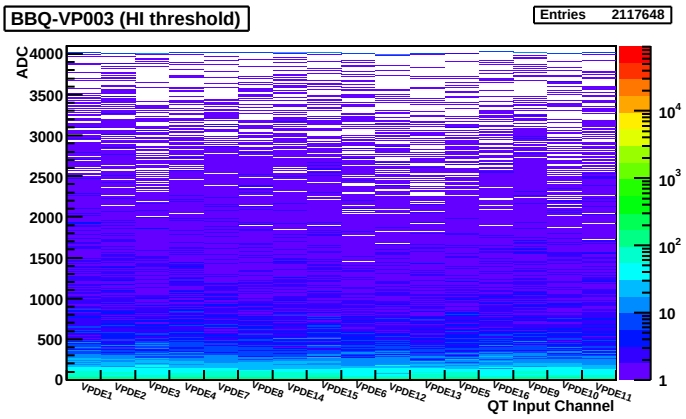

BBQ-ZD001 (ZDC TOWER)
Entries 2117648
TAC

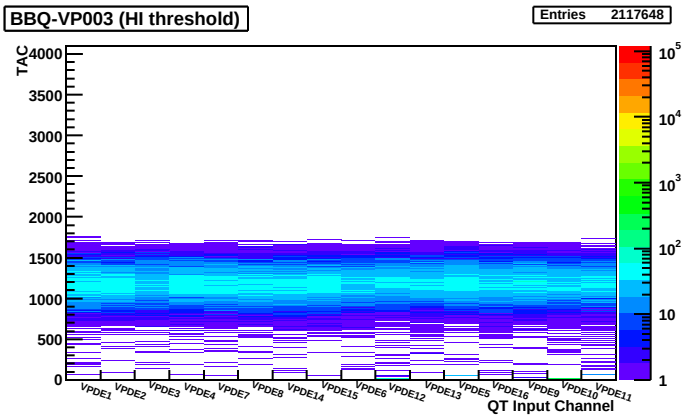

BBQ-VP001 (LO threshold)
Entries 2117648
ADC
QT Input Channel

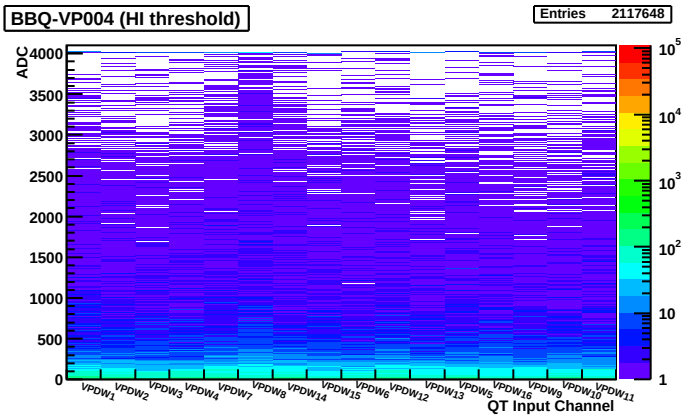

BBQ-VP001 (LO threshold)
Entries 2117648
TAC
QT Input Channel

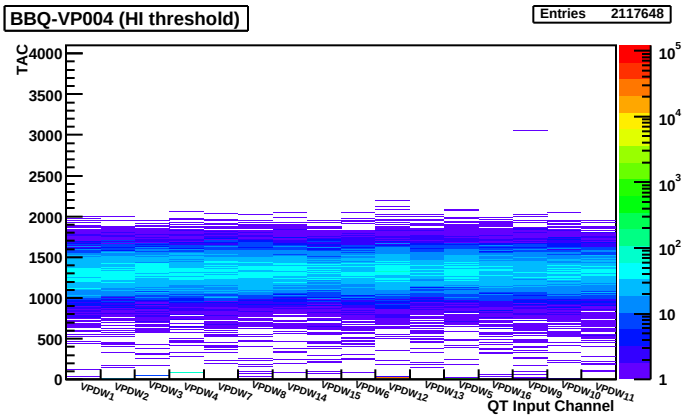

BBQ-VP002 (LO threshold)
Entries 2117648
ADC
QT Input Channel

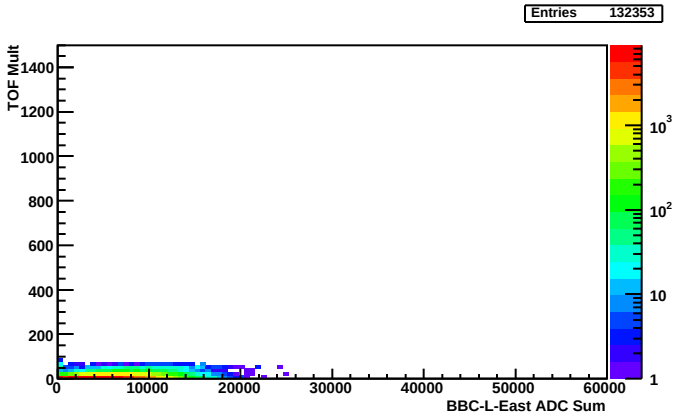

BBQ-VP002 (LO threshold)
Entries 2117648
TAC
QT Input Channel

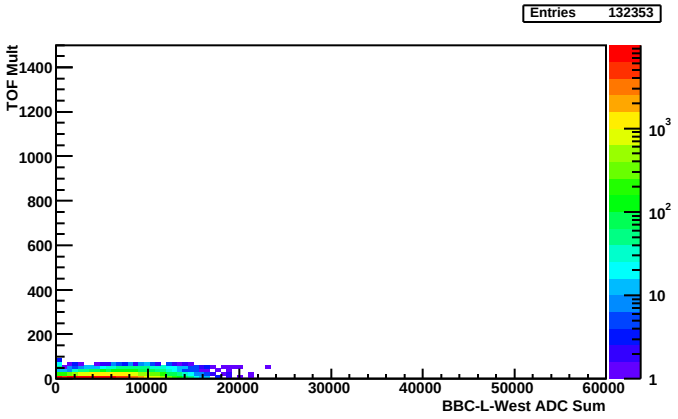

BBQ-VP003 (HI threshold)
Entries 2117648
ADC
QT Input Channel

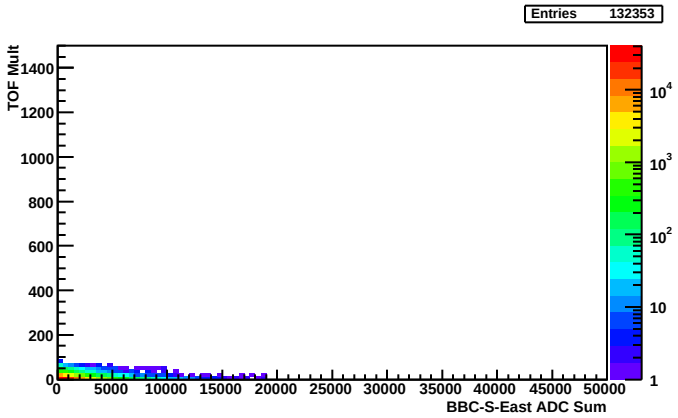

BBQ-VP003 (HI threshold)
Entries 2117648
TAC
QT Input Channel

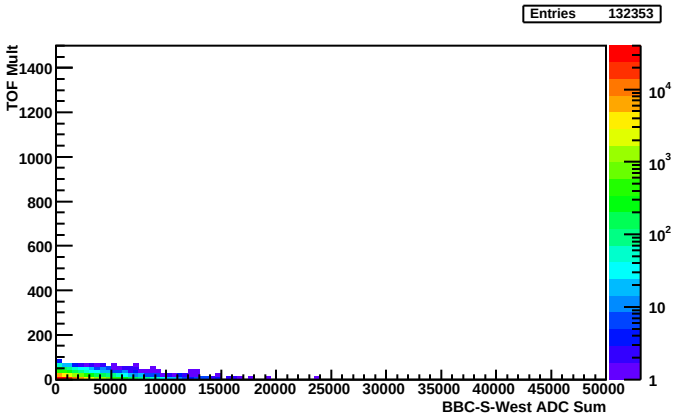

BBQ-VP004 (HI threshold)
Entries 2117648
ADC
QT Input Channel

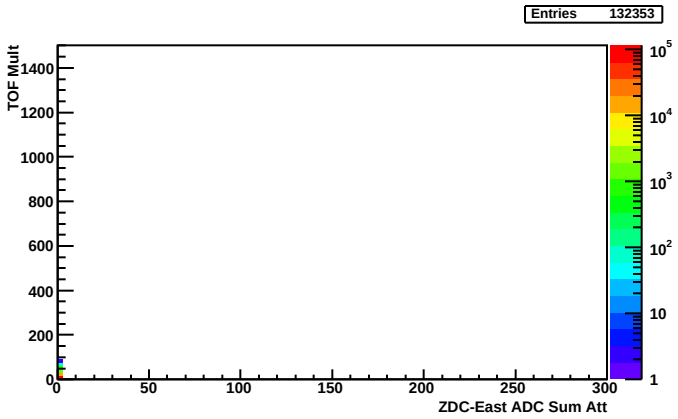

BBQ-VP004 (HI threshold)
Entries 2117648
TAC
QT Input Channel

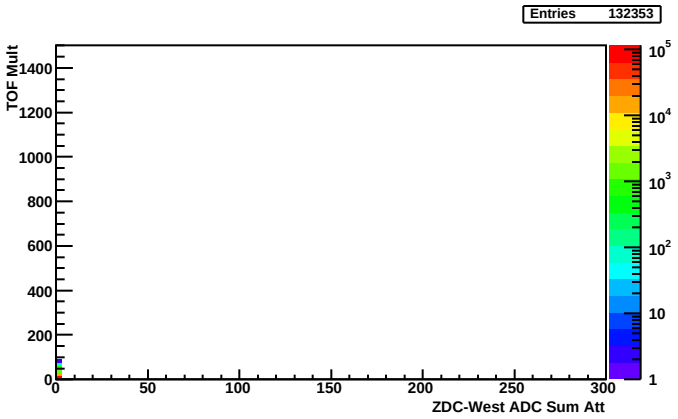

Entries 132353
TOF Mult
BBC-L-East ADC Sum

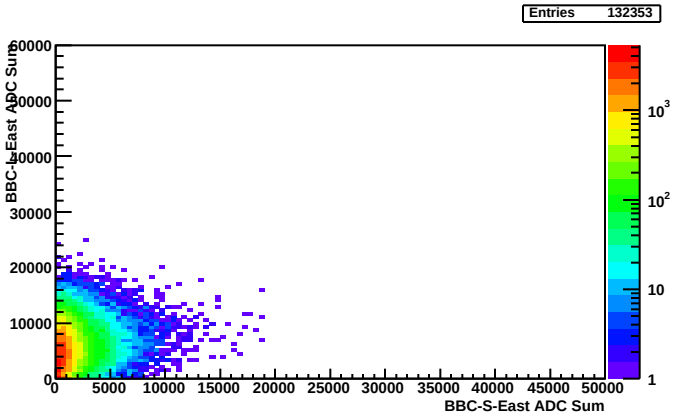

Entries 132353
TOF Mult
BBC-L-West ADC Sum

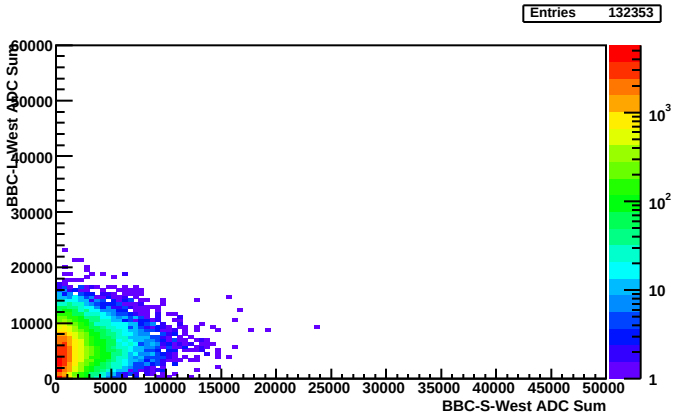

Entries 132353
TOF Mult
BBC-S-East ADC Sum

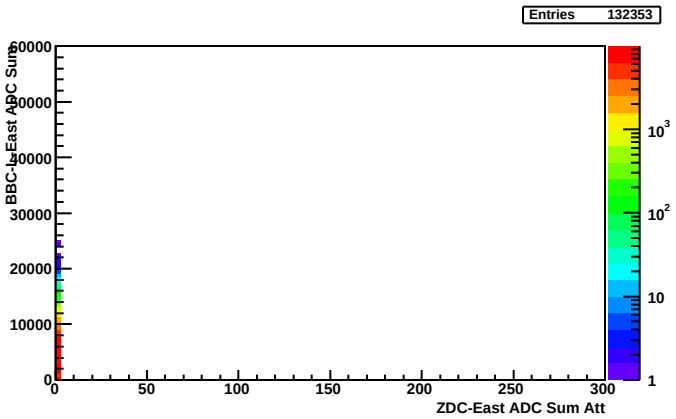

Entries 132353
TOF Mult
BBC-S-West ADC Sum

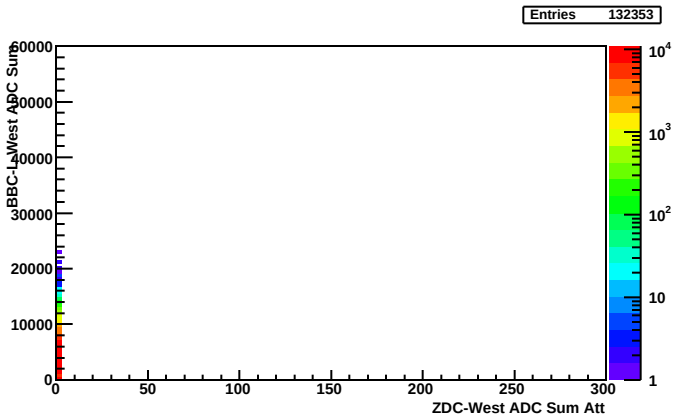

Entries 132353
TOF Mult
ZDC-East ADC Sum Att

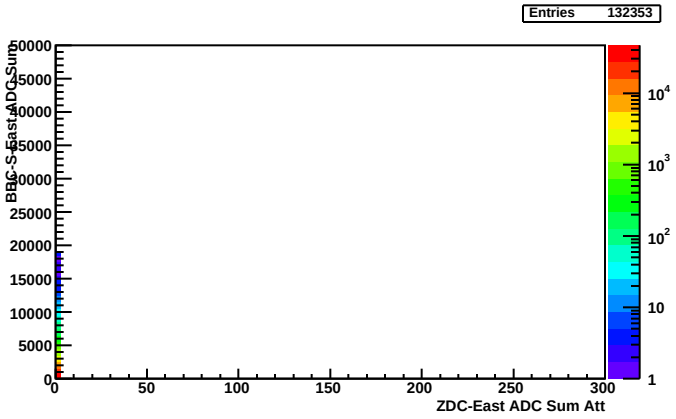

Entries 132353
TOF Mult
ZDC-West ADC Sum Att

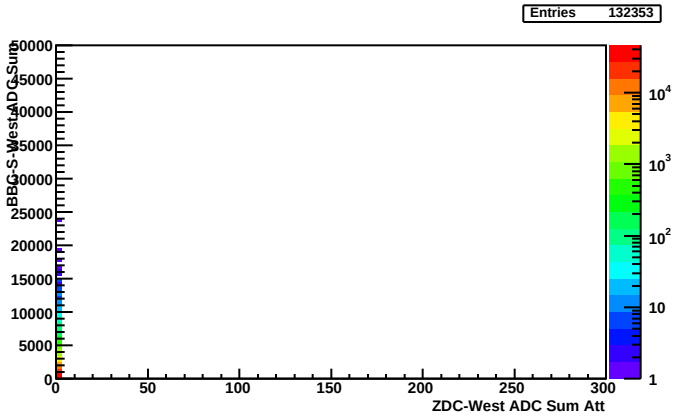

Entries 132353
BBC-L-East ADC Sum
BBC-S-East ADC Sum

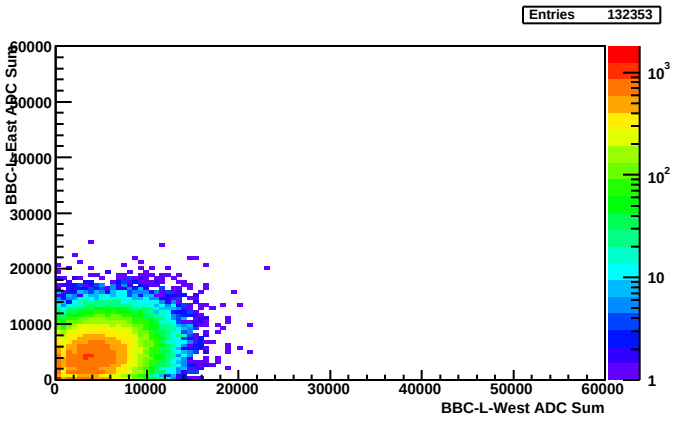

Entries 132353
BBC-L-West ADC Sum
BBC-S-West ADC Sum

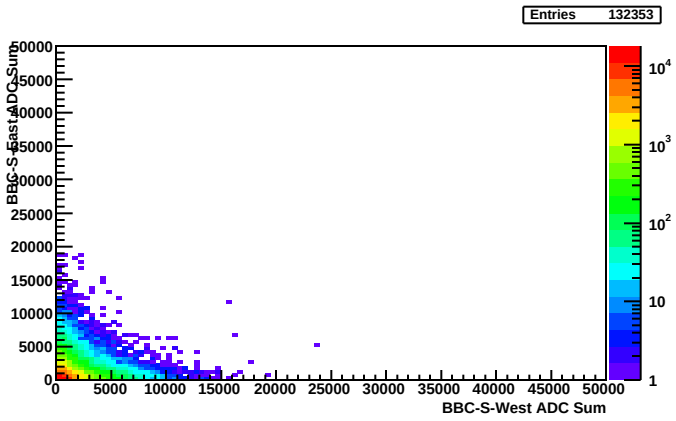

Entries 132353
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

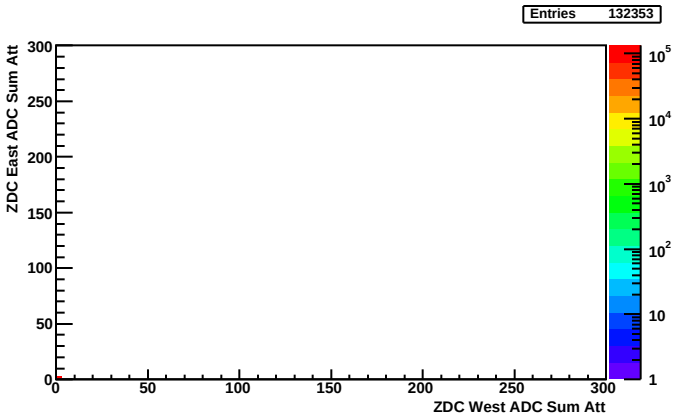

Entries 132353
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

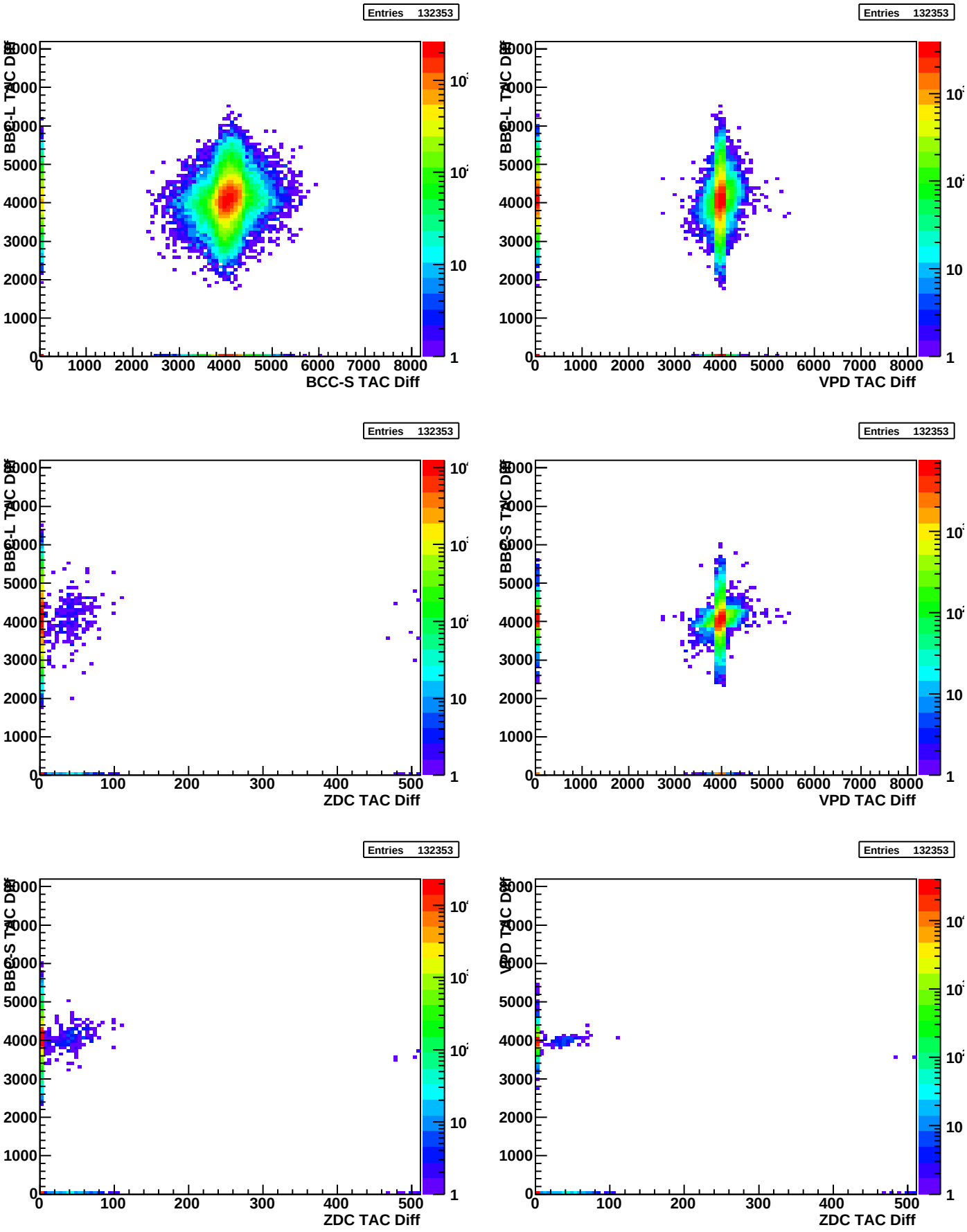

Entries 132353
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

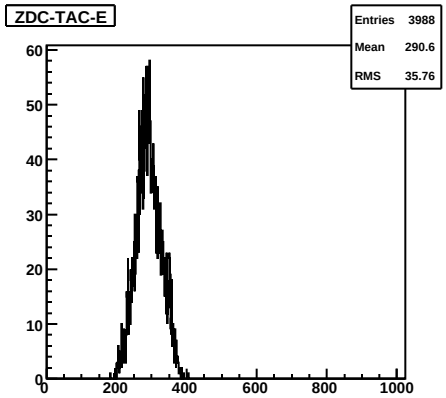

Entries 132353
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

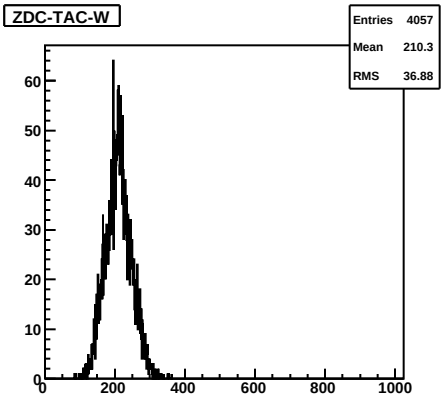

Entries 132353
BBC-L-East ADC Sum
BBC-L-West ADC Sum

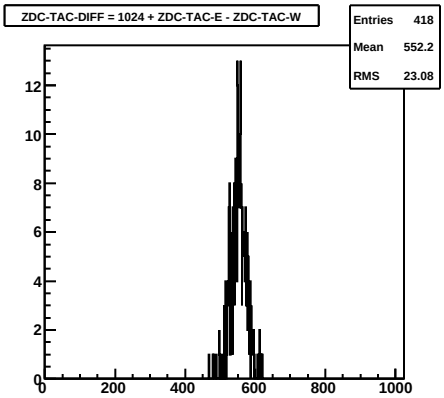

Entries 132353
BBC-S-East ADC Sum
BBC-S-West ADC Sum

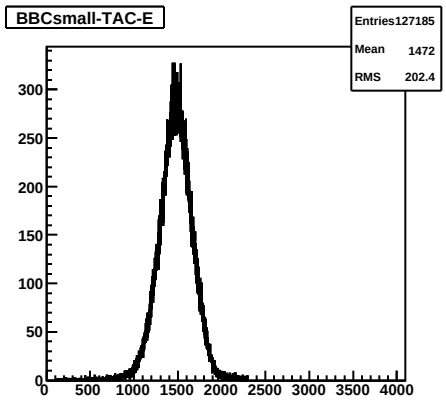

Entries 132353
ZDC East ADC Sum Att
ZDC West ADC Sum Att

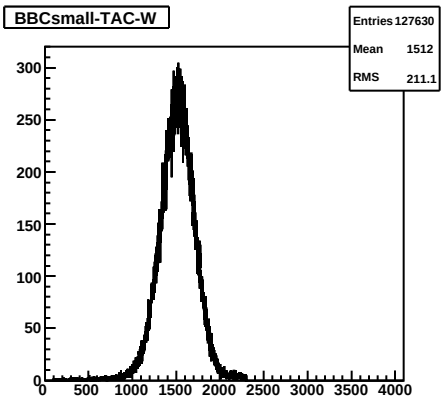

Entries 132353
BBC-L TAC Diff
BCC-S TAC Diff
Entries 132353
BBC-L TAC Diff
VPD TAC Diff
Entries 132353
BBC-L TAC Diff
ZDC TAC Diff
Entries 132353
BBC-S TAC Diff
VPD TAC Diff
Entries 132353
BBC-S TAC Diff
ZDC TAC Diff
Entries 132353
VPD TAC Diff
ZDC TAC Diff

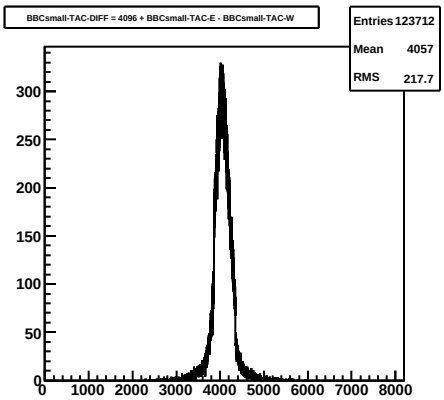

ZDC-TAC-E
Entries 3988
Mean 290.6
RMS 35.76

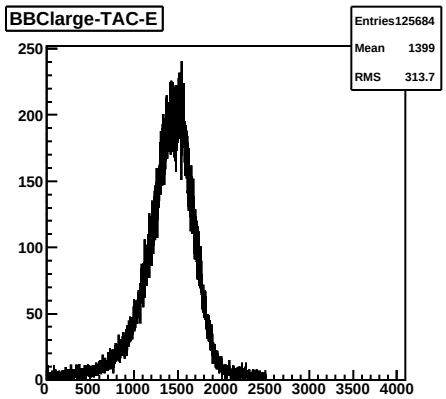

ZDC-TAC-W
Entries 4057
Mean 210.3
RMS 36.88

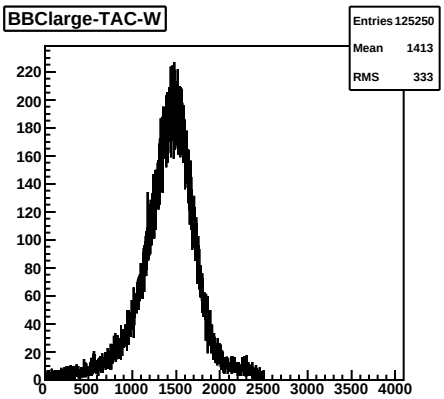

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 418
Mean 552.2
RMS 23.08

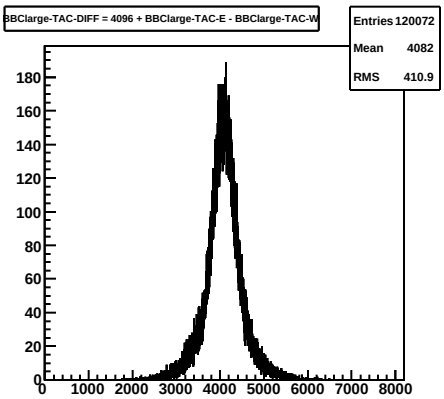

BBCsmall-TAC-E
Entries 127185
Mean 1472
RMS 202.4

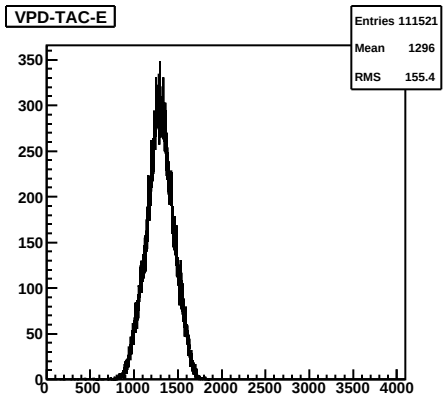

BBCsmall-TAC-W
Entries 127630
Mean 1512
RMS 211.1

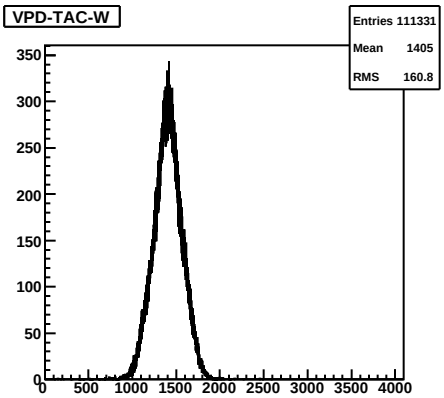

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 123712
Mean 4057
RMS 217.7

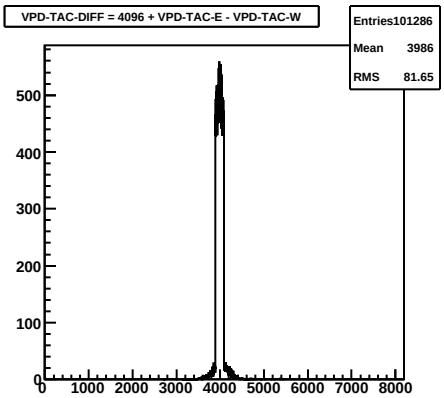

BBClarge-TAC-E
Entries 125684
Mean 1399
RMS 313.7

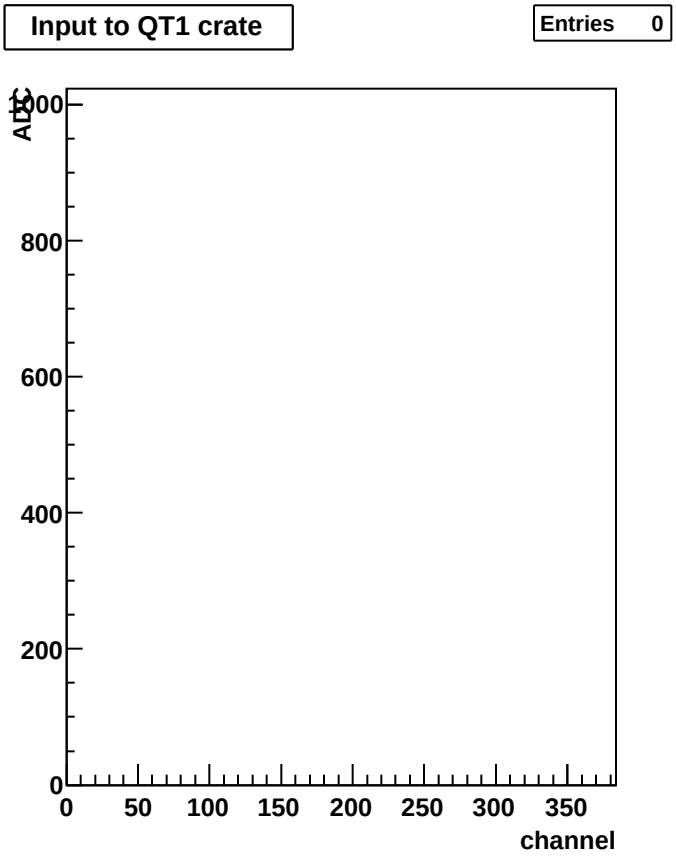

BBClarge-TAC-W
Entries 125250
Mean 1413
RMS 333

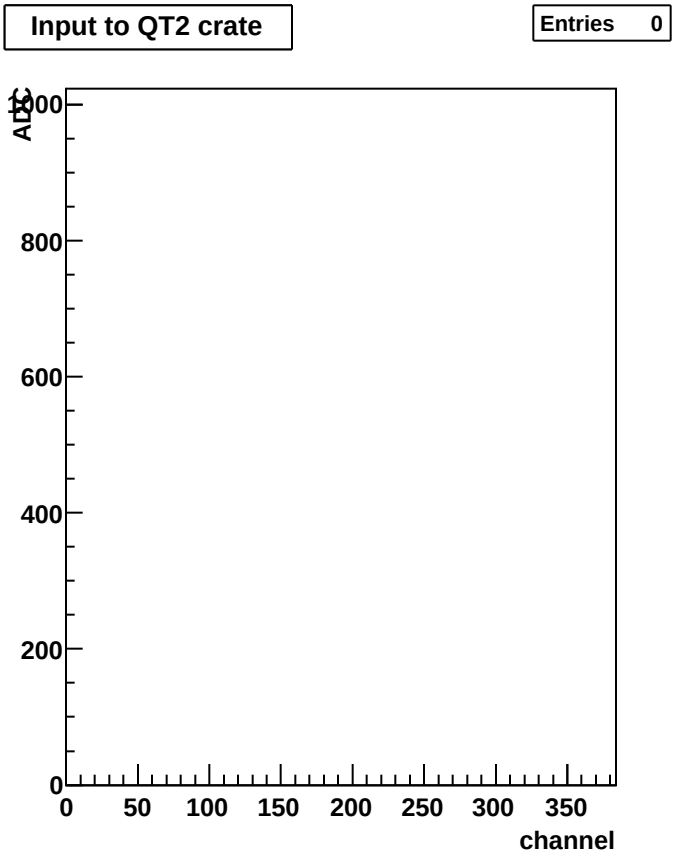

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 120072
Mean 4082
RMS 410.9

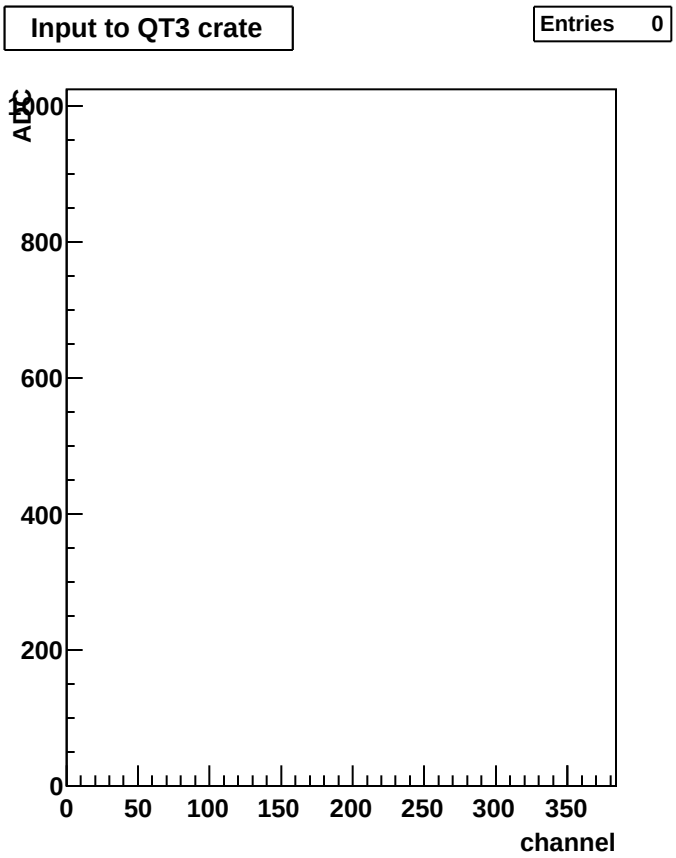

VPD-TAC-E
Entries 111521
Mean 1296
RMS 155.4

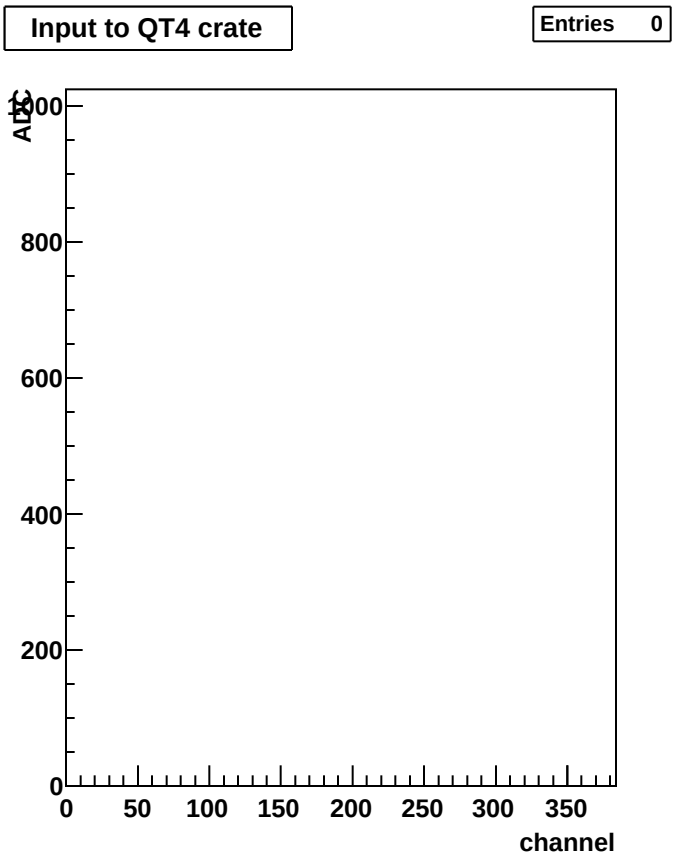

VPD-TAC-W
Entries 111331
Mean 1405
RMS 160.8

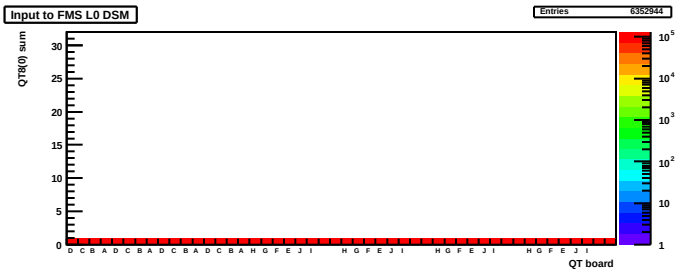

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 101286
Mean 3986
RMS 81.65

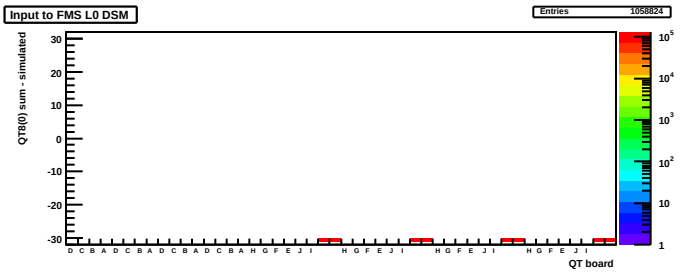

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

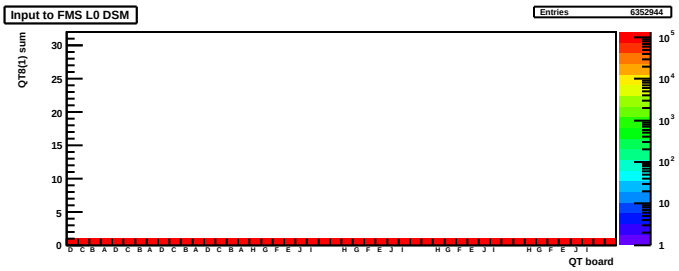

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

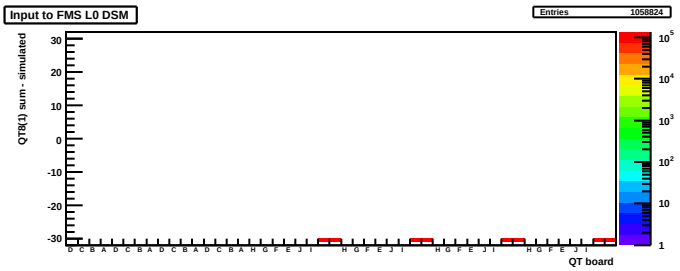

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

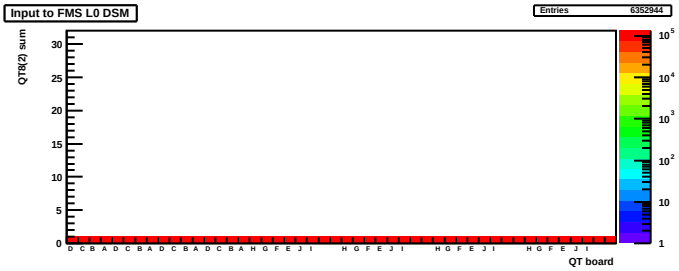

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

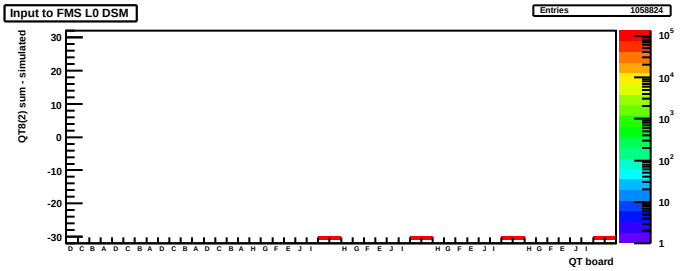

Input to FMS L0 DSM
Entries 6352944
QT8(0) sum
QT board

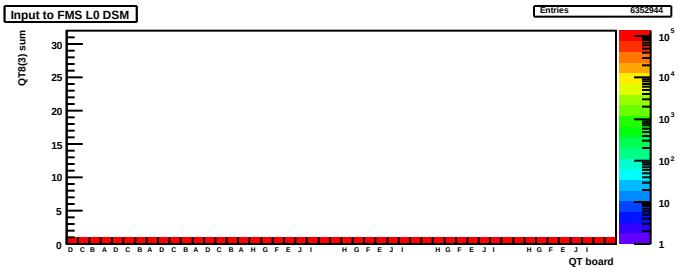

Input to FMS L0 DSM
Entries 1058824
QT8(0) sum - simulated
QT board

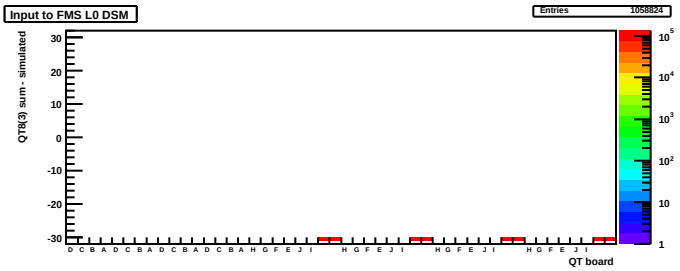

Input to FMS L0 DSM
Entries 6352944
QT8(1) sum
QT board

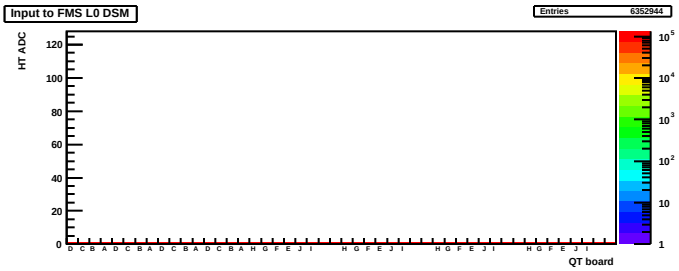

Input to FMS L0 DSM
Entries 1058824
QT8(1) sum - simulated
QT board

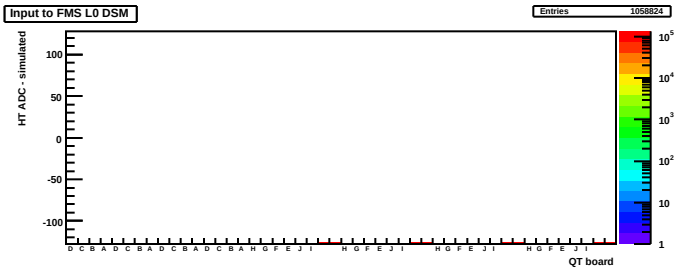

Input to FMS L0 DSM
Entries 6352944
QT8(2) sum
QT board

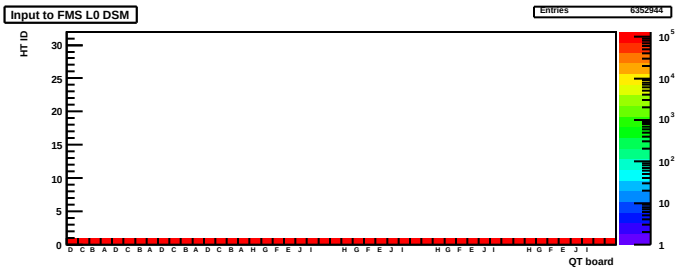

Input to FMS L0 DSM
Entries 1058824
QT8(2) sum - simulated
QT board

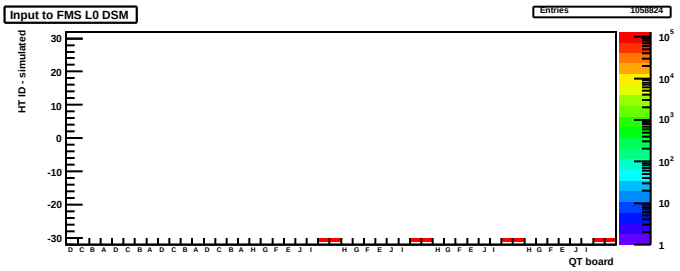

Input to FMS L0 DSM
Entries 6352944
QT8(3) sum
QT board

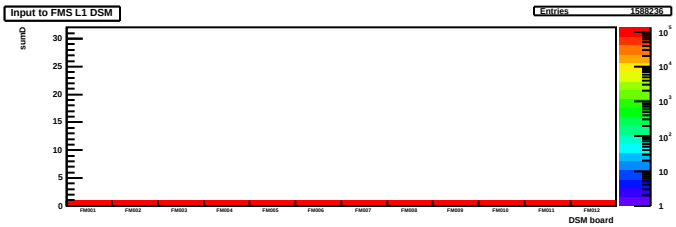

Input to FMS L0 DSM
Entries 1058824
QT8(3) sum - simulated
QT board

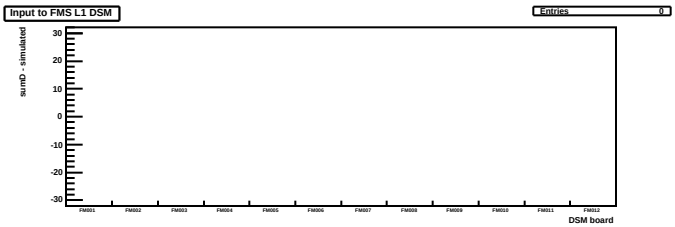

Input to FMS L0 DSM
Entries 6352944
HT ADC
QT board

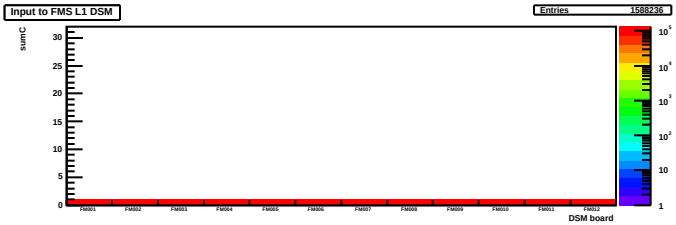

Input to FMS L0 DSM
Entries 1058824
HT ADC - simulated
QT board

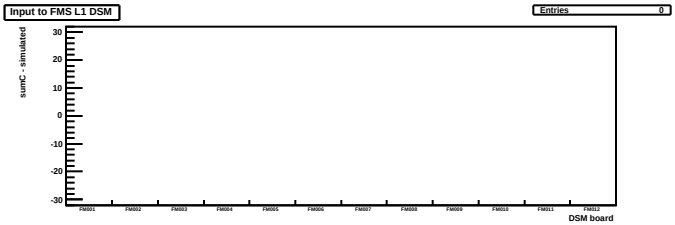

Input to FMS L0 DSM
Entries 6352944
HT ID
QT board

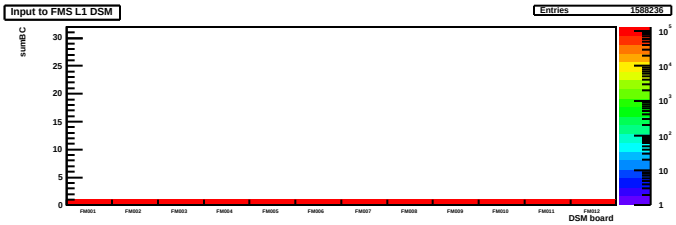

Input to FMS L0 DSM
Entries 1058824
HT ID - simulated
QT board

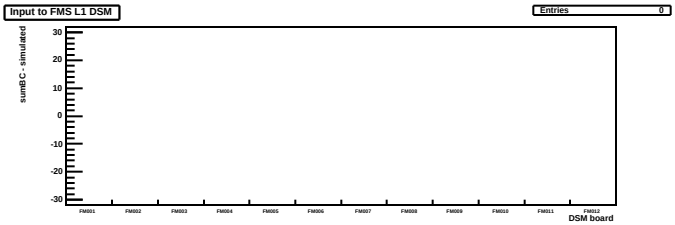

Input to FMS L1 DSM
Entries 1588236
sumD
DSM board

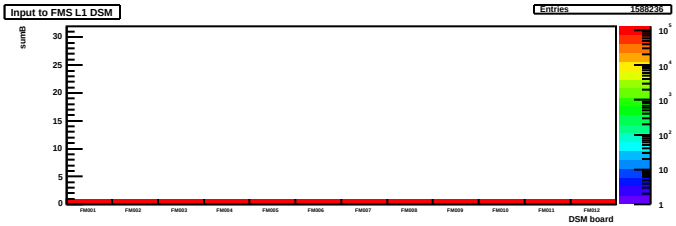

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

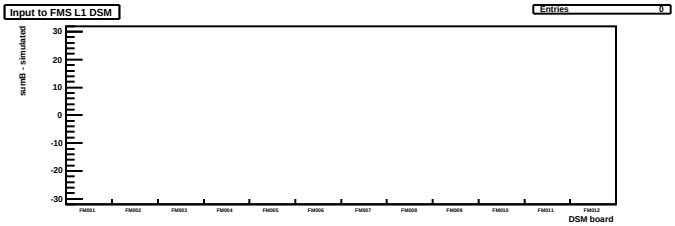

Input to FMS L1 DSM
Entries 1588236
sumC
DSM board

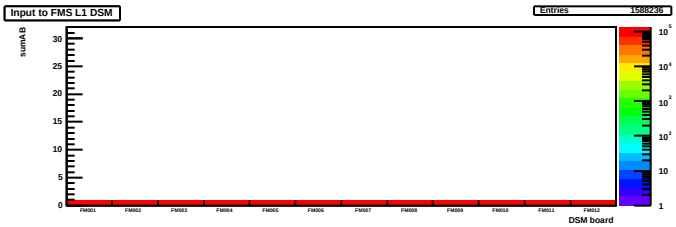

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

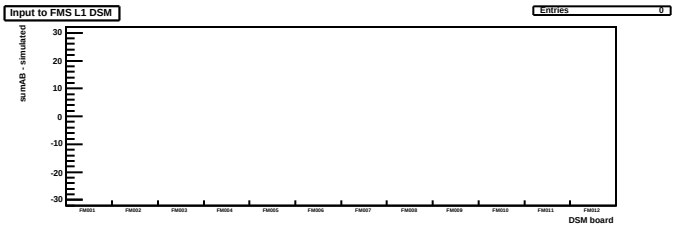

Input to FMS L1 DSM
Entries 1588236
sumBC
DSM board

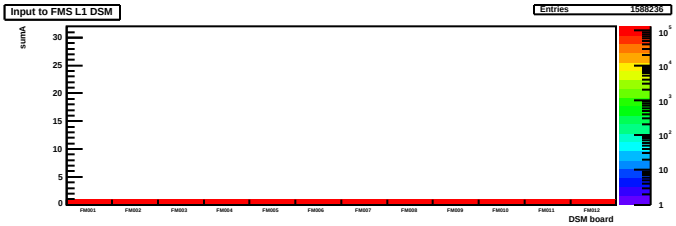

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

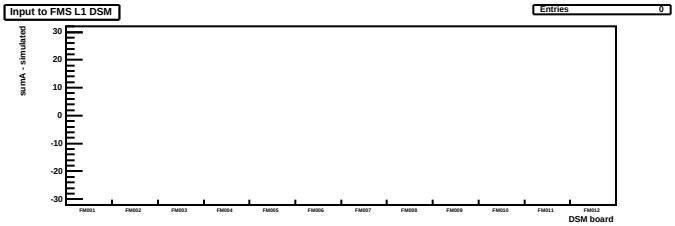

Input to FMS L1 DSM
Entries 1588236
sumB
DSM board

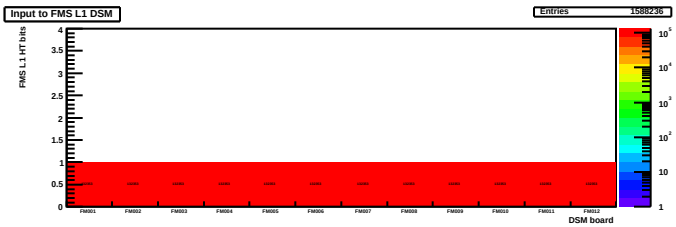

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

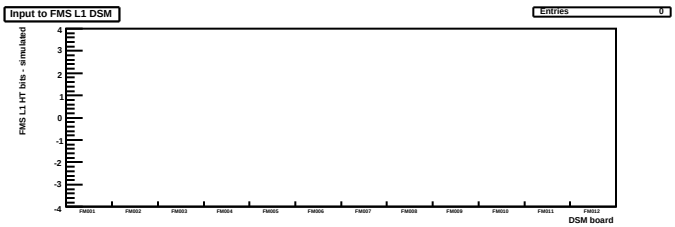

Input to FMS L1 DSM
Entries 1588236
sumAB
DSM board

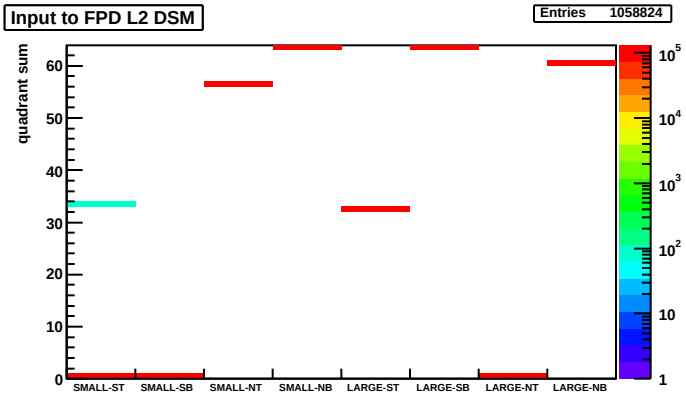

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

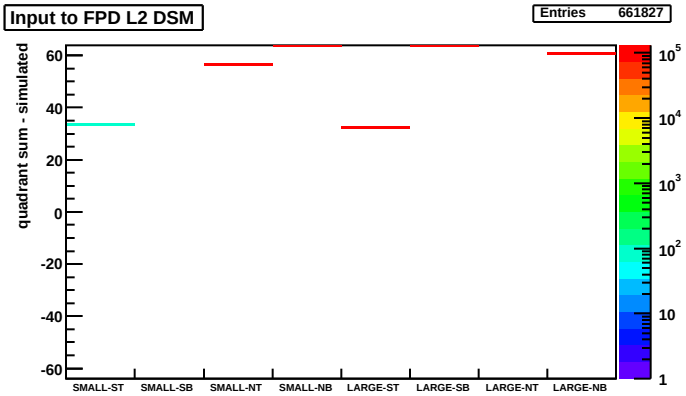

Input to FMS L1 DSM
Entries 1588236
sumA
DSM board

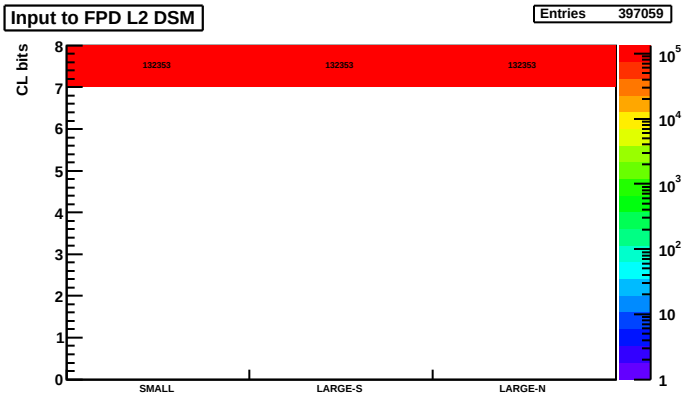

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

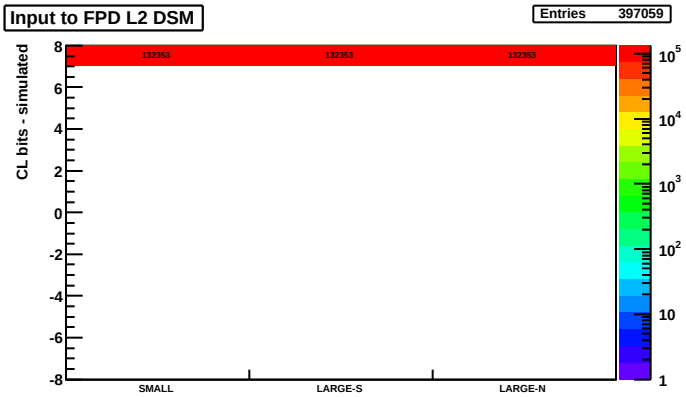

Input to FMS L1 DSM
Entries 1588236
FMS L1 HT bits
DSM board

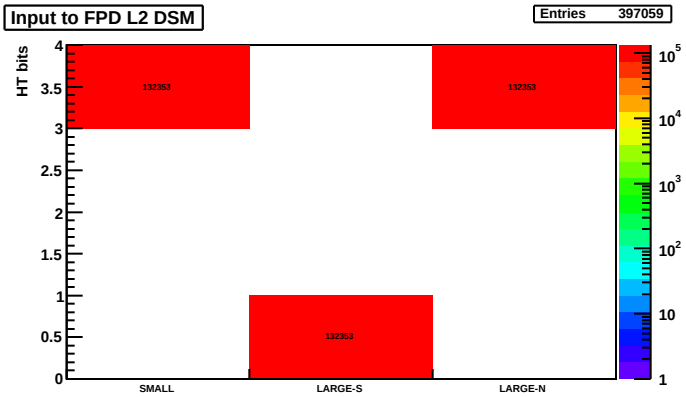

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

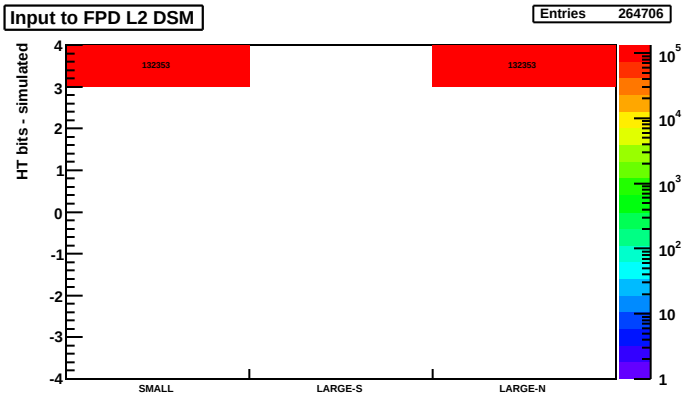

Input to FPD L2 DSM
Entries 1058824
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

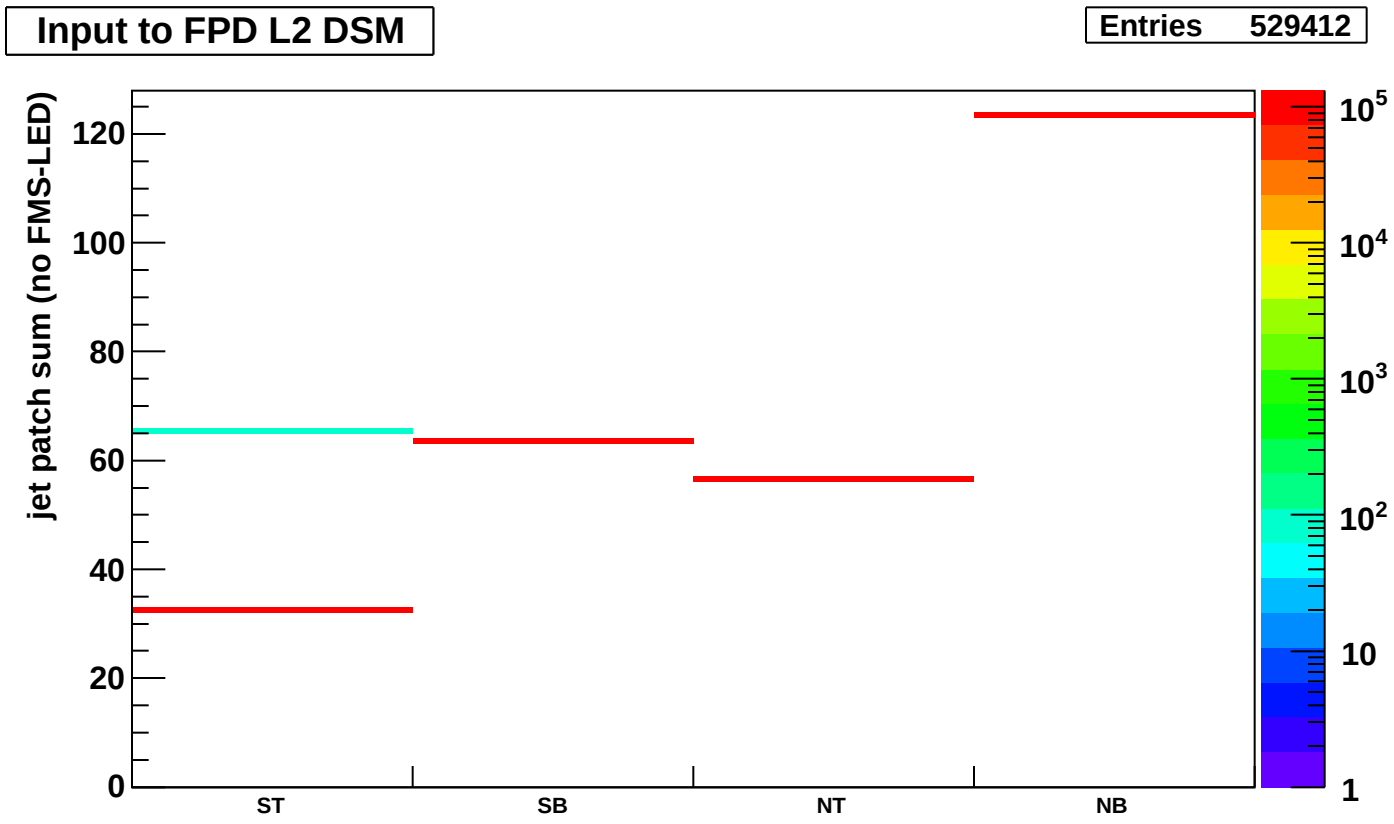

Input to FPD L2 DSM
Entries 661827
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

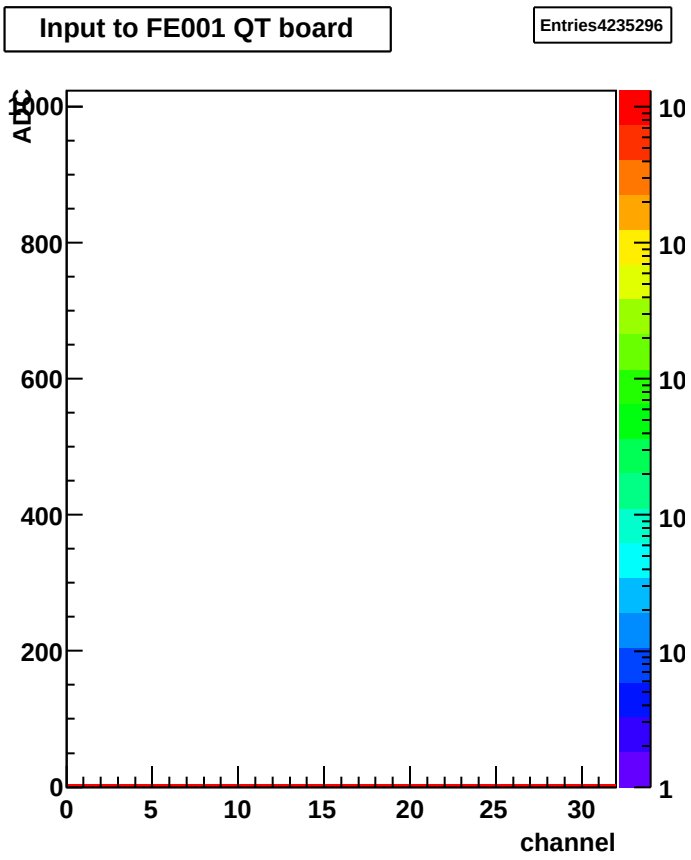

Input to FPD L2 DSM
Entries 397059
CL bits
132353
SMALL
LARGE-S
LARGE-N

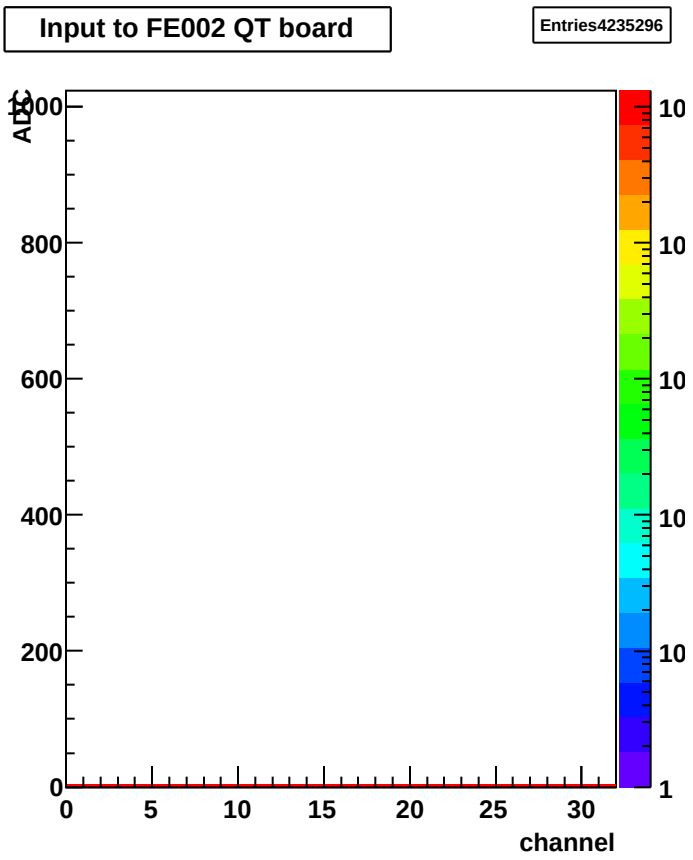

Input to FPD L2 DSM
Entries 397059
CL bits - simulated
132353
SMALL
LARGE-S
LARGE-N

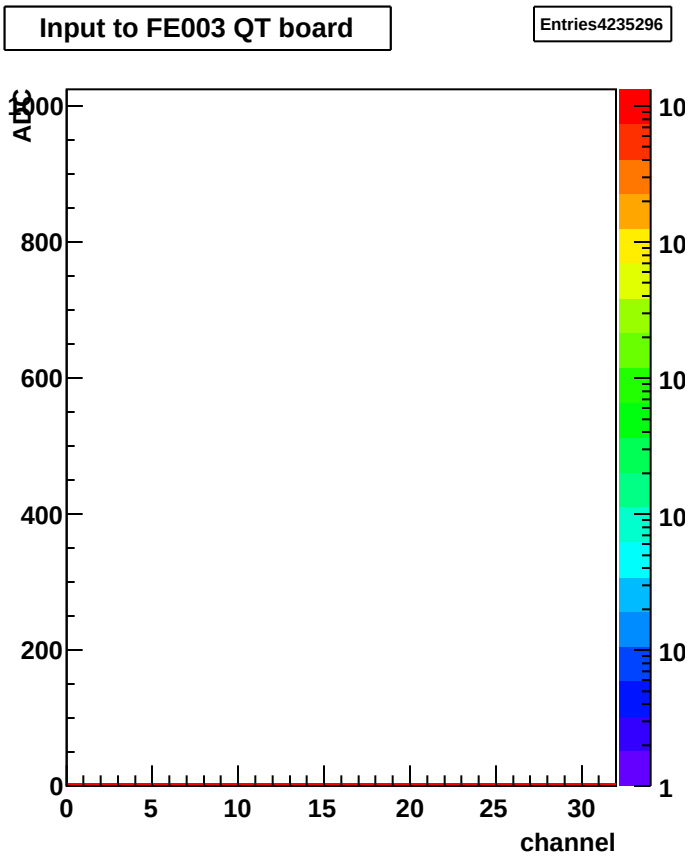

Input to FPD L2 DSM
Entries 397059
HT bits
132353
SMALL
LARGE-S
LARGE-N

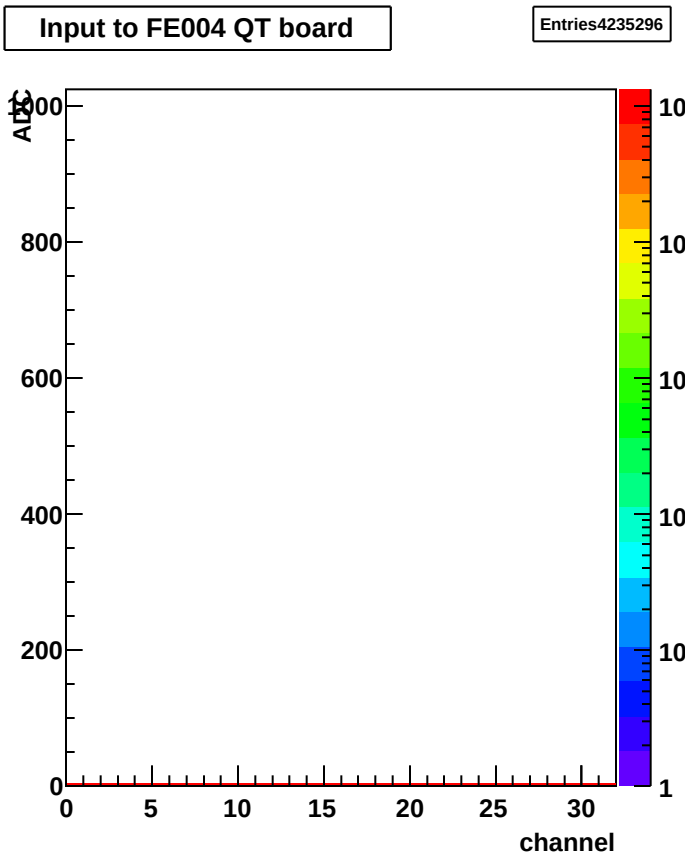

Input to FPD L2 DSM
Entries 264706
HT bits - simulated
132353
SMALL
LARGE-S
LARGE-N

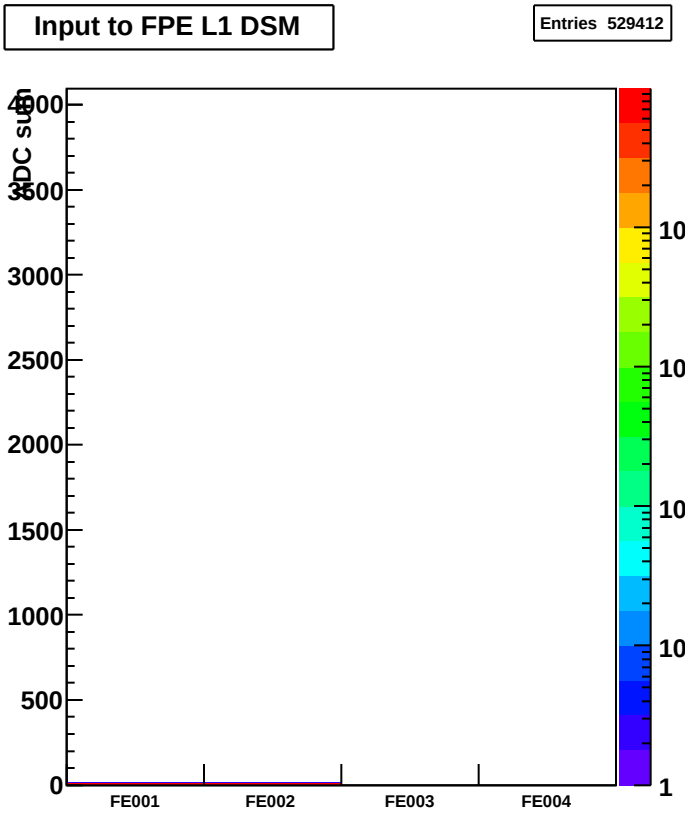

Input to FPD L2 DSM
Entries 529412
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

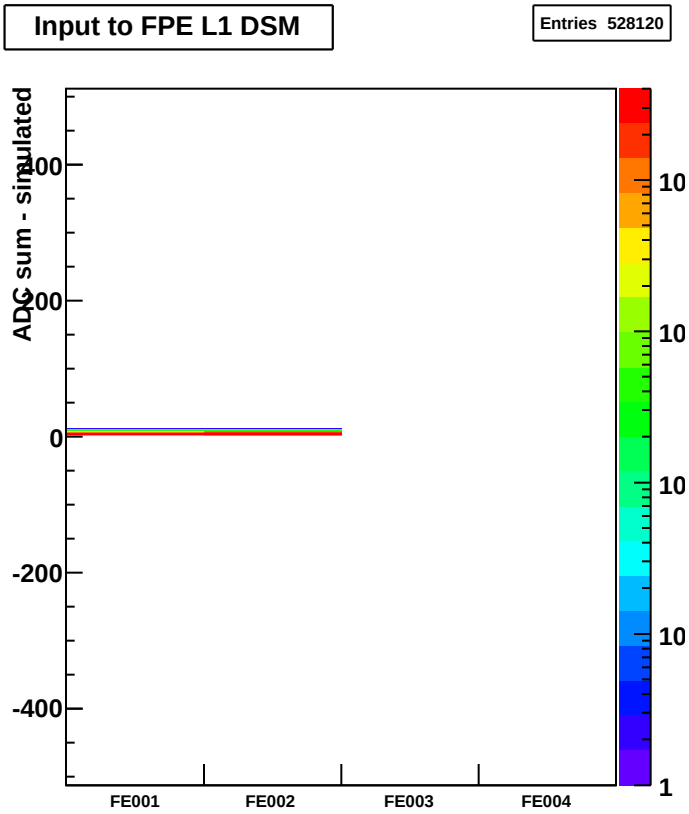

Input to FE001 QT board
Entries4235296
ADC
channel

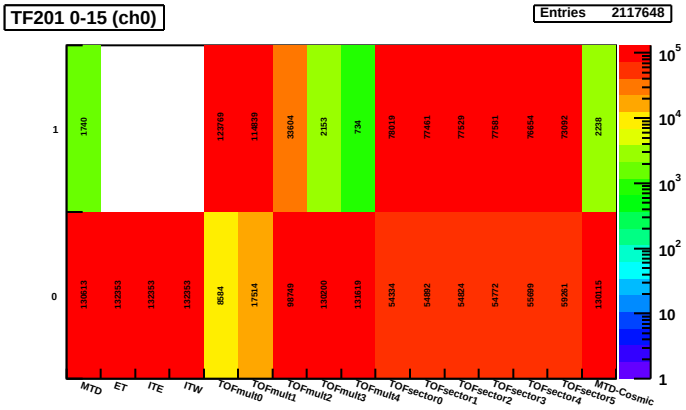

Input to FE002 QT board
Entries4235296
ADC
channel

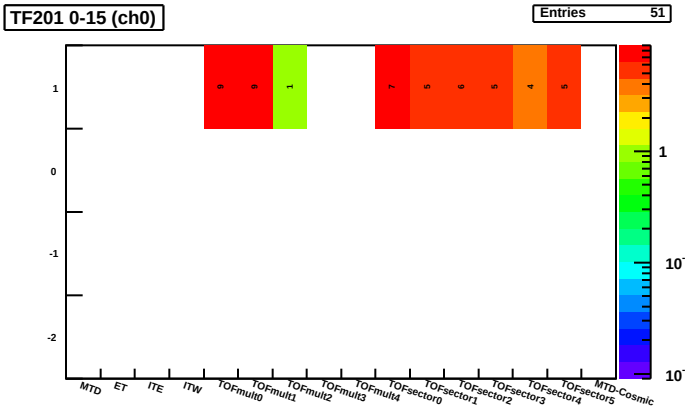

Input to FE003 QT board
Entries4235296
ADC
channel

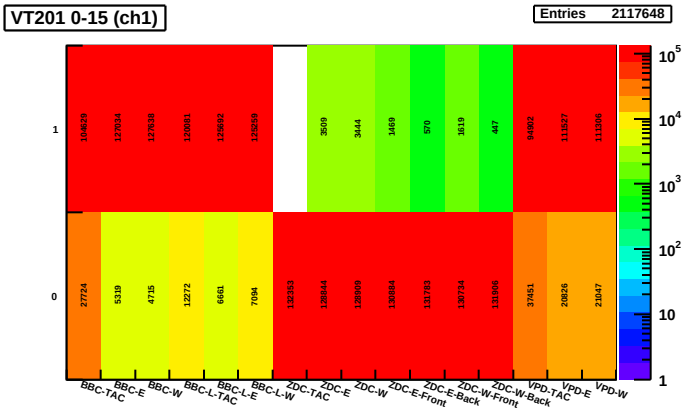

Input to FE004 QT board
Entries4235296
ADC
channel

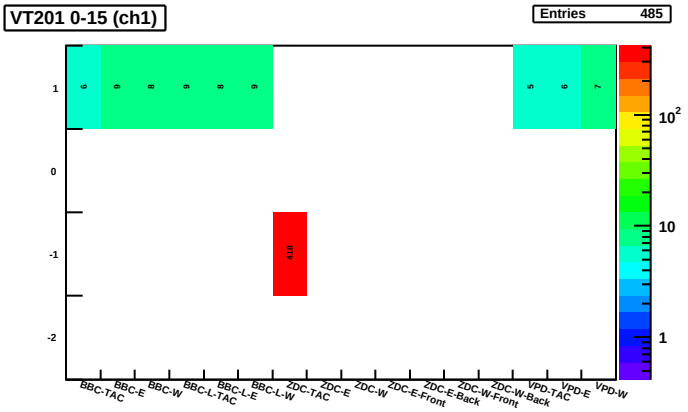

Input to FPE L1 DSM
Entries 529412
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

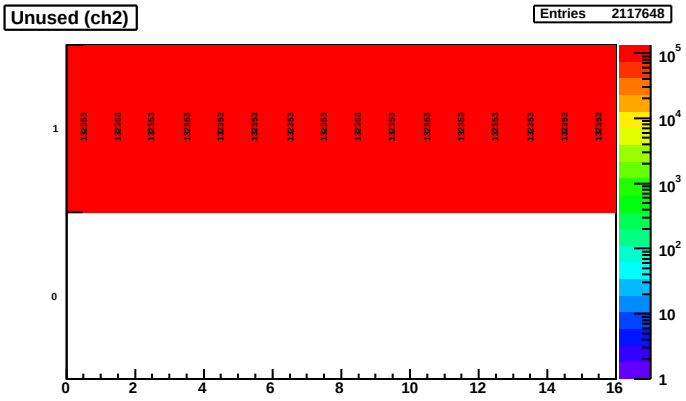

Input to FPE L1 DSM
Entries 528120
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

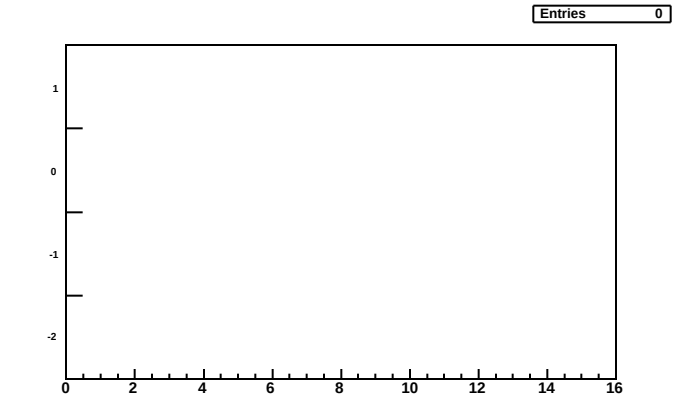

TF201 0-15 (ch0)
Entries 2117648
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

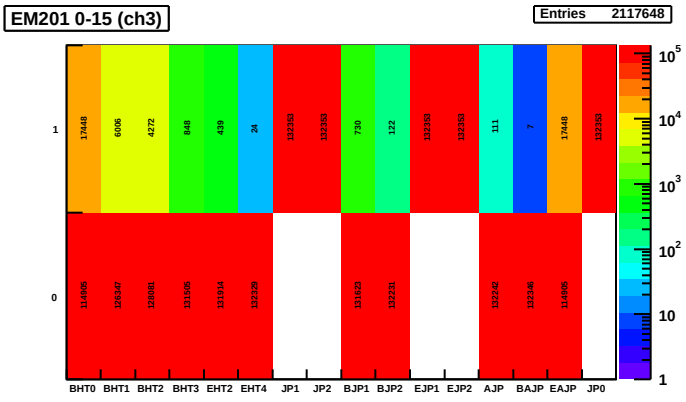

TF201 0-15 (ch0)
Entries 51
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

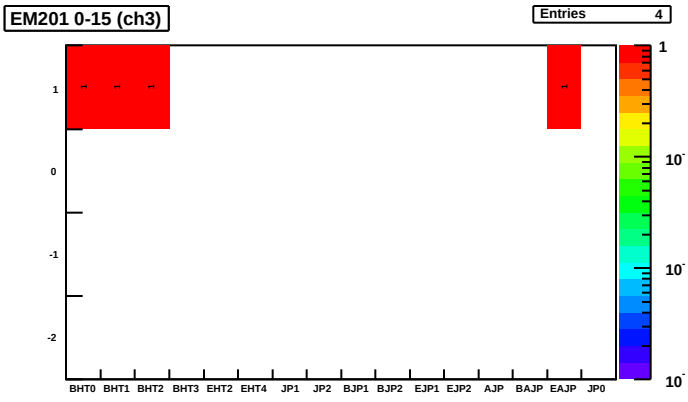

VT201 0-15 (ch1)
Entries 2117648
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 485
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

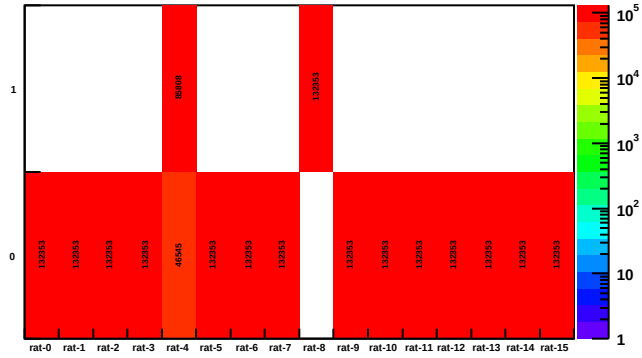

Unused (ch2)
Entries 2117648

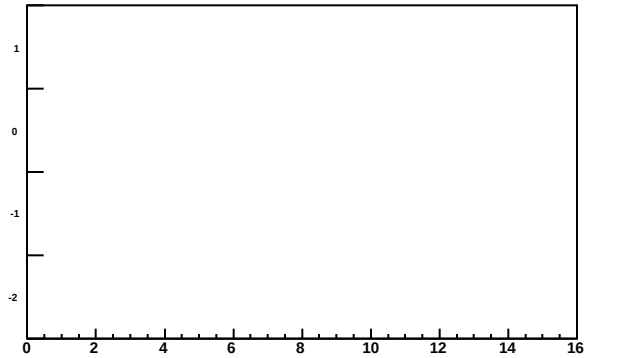

Entries 0


EM201 0-15 (ch3)
Entries 2117648
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

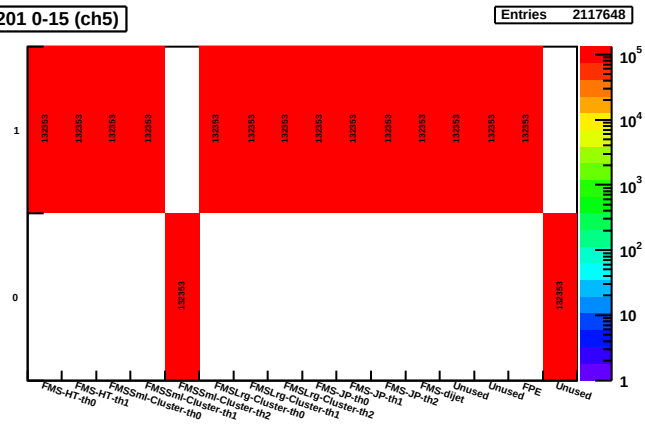

EM201 0-15 (ch3)
Entries 4
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

RAT board (ch4)

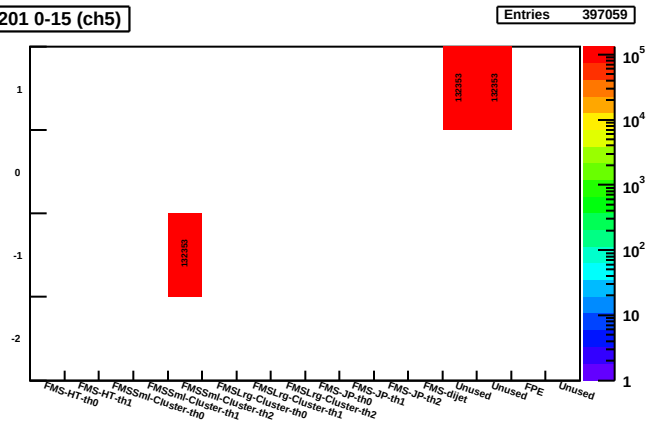




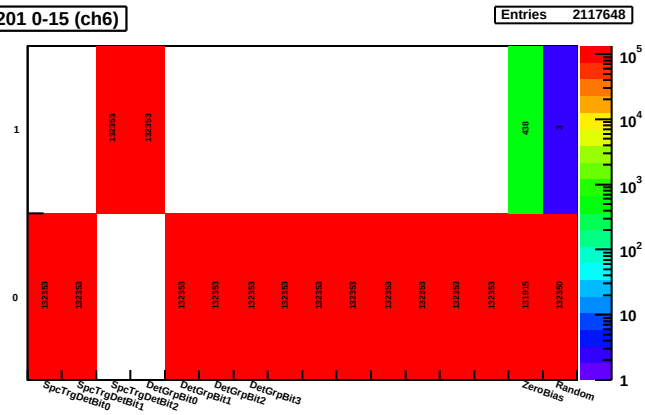
FP201 0-15 (ch5)

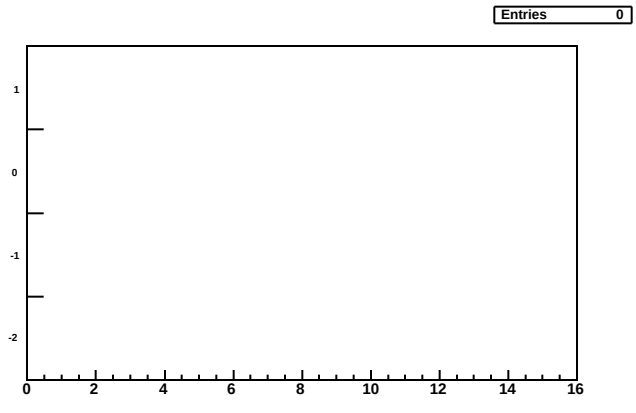
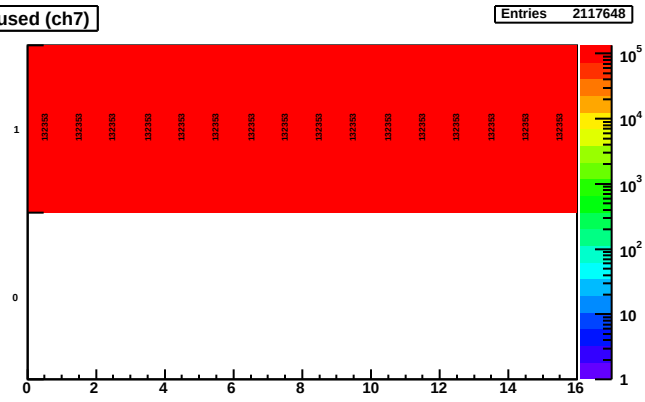
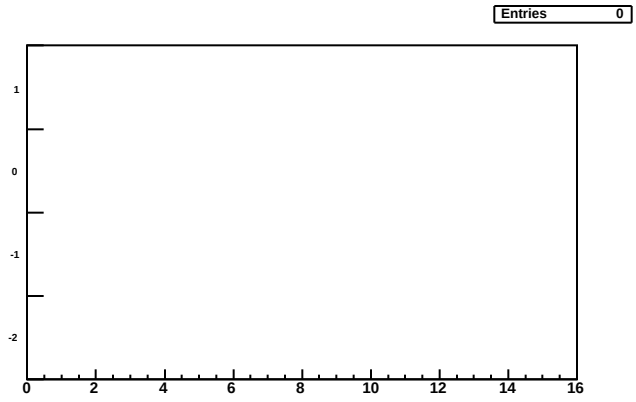


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)