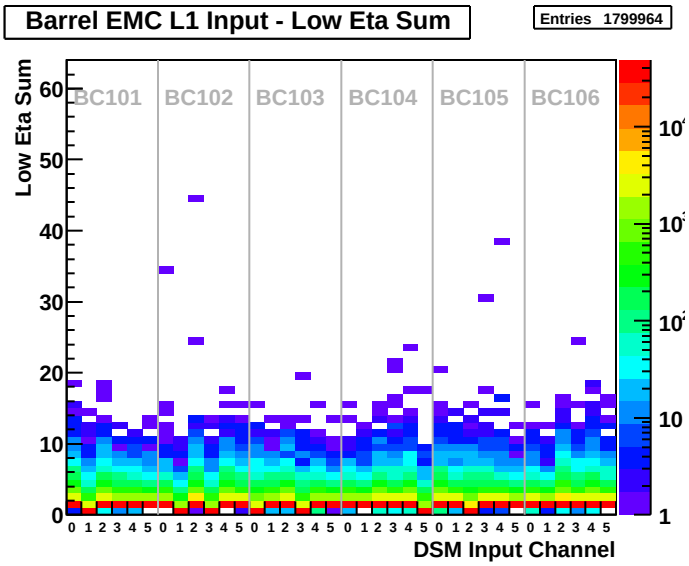
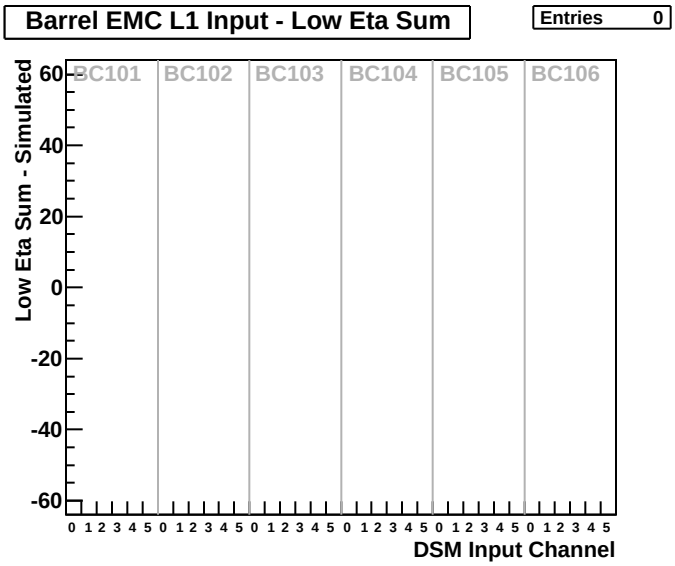
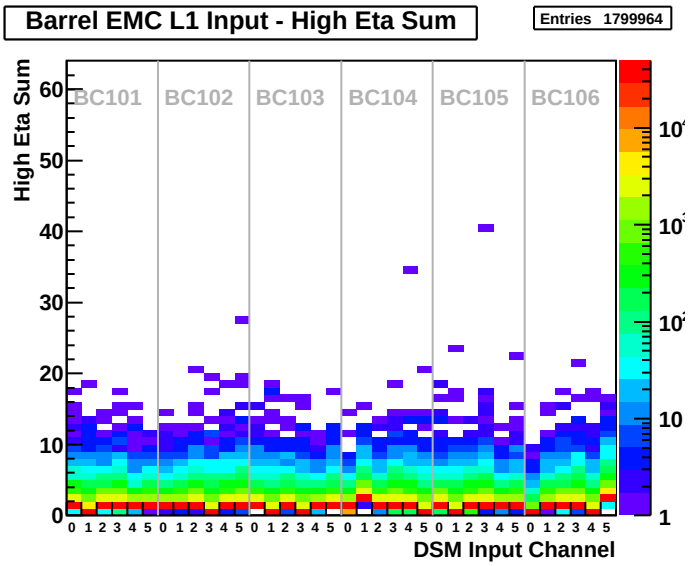
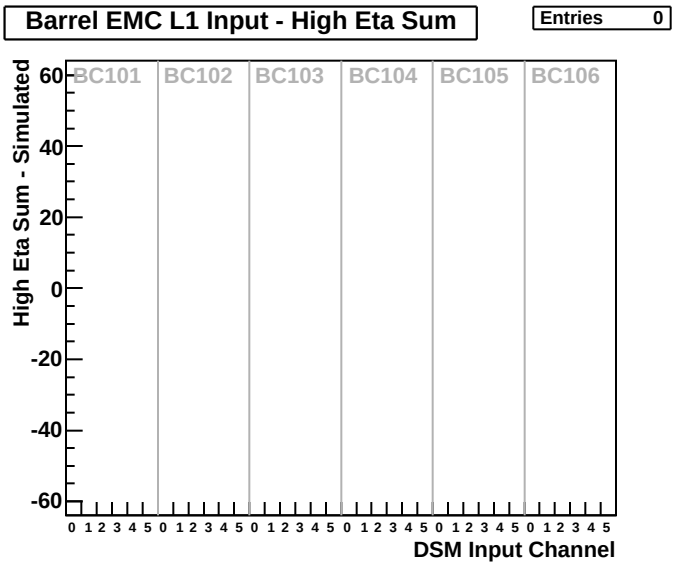
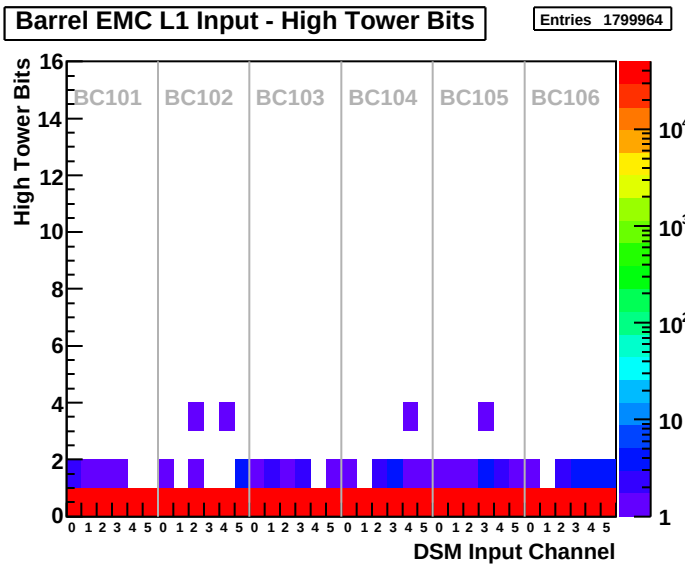
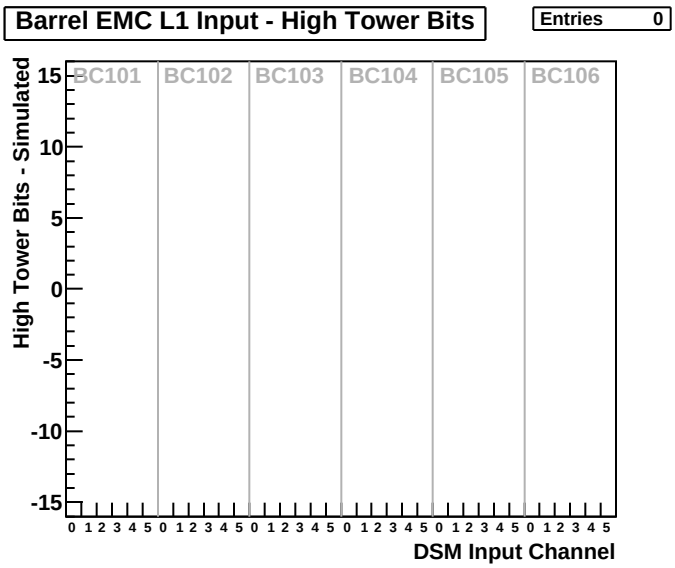

Barrel EMC L1 Input - Low Eta Sum
Entries 1799964
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

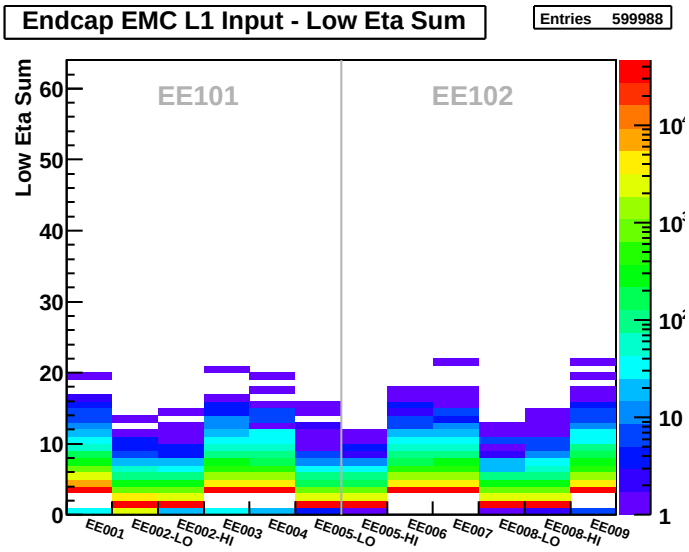

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

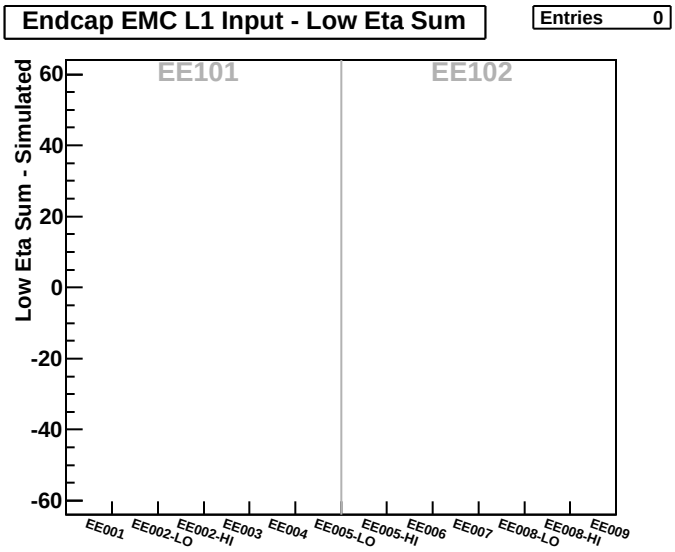

Barrel EMC L1 Input - High Eta Sum
Entries 1799964
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

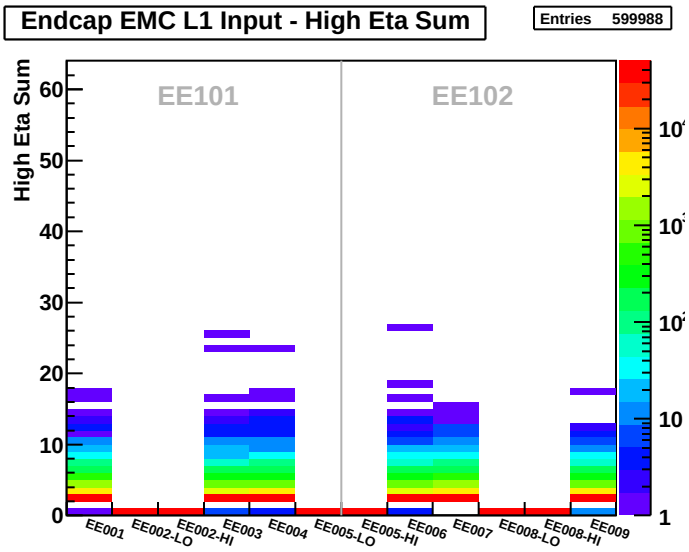

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

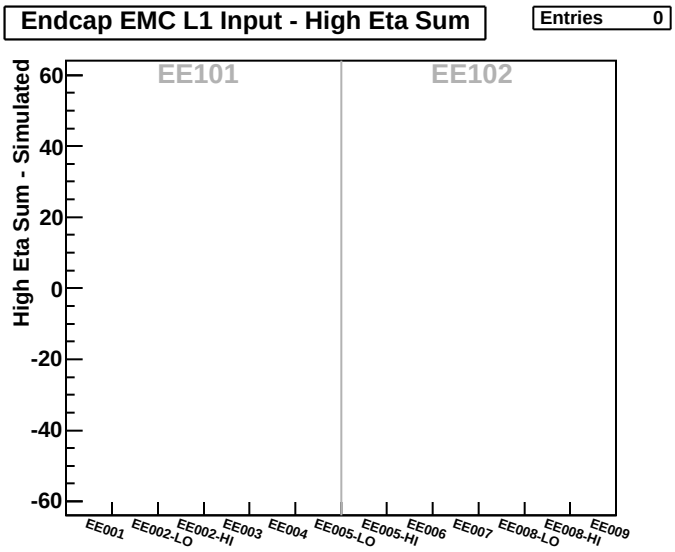

Barrel EMC L1 Input - High Tower Bits
Entries 1799964
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

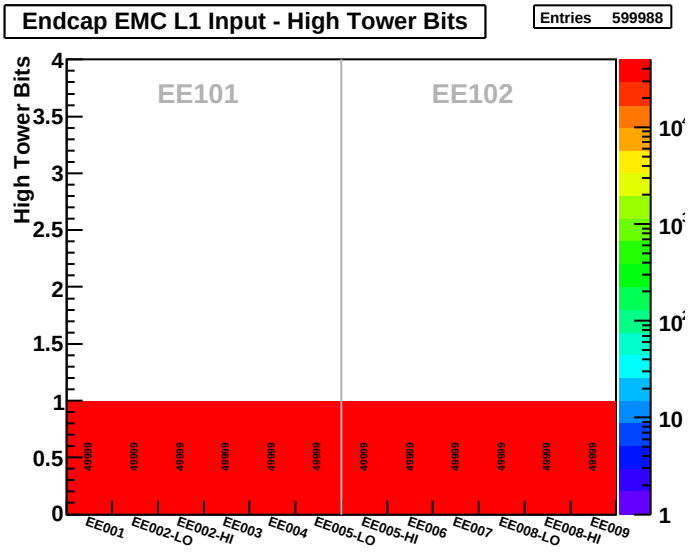

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

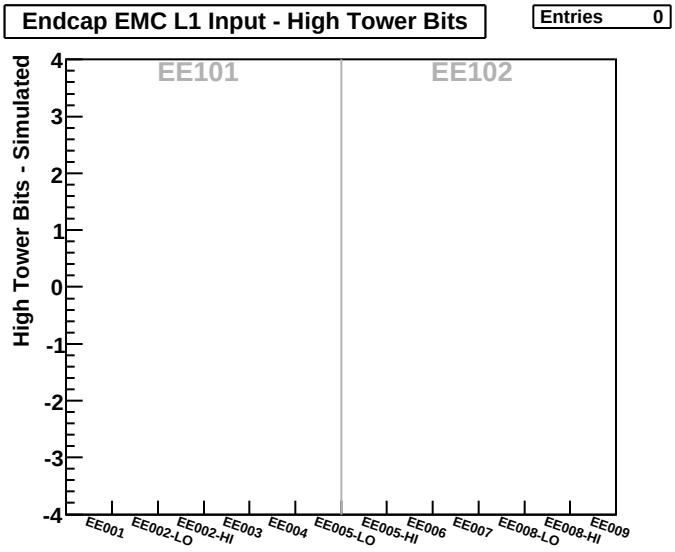

Endcap EMC L1 Input - Low Eta Sum
Entries 599988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

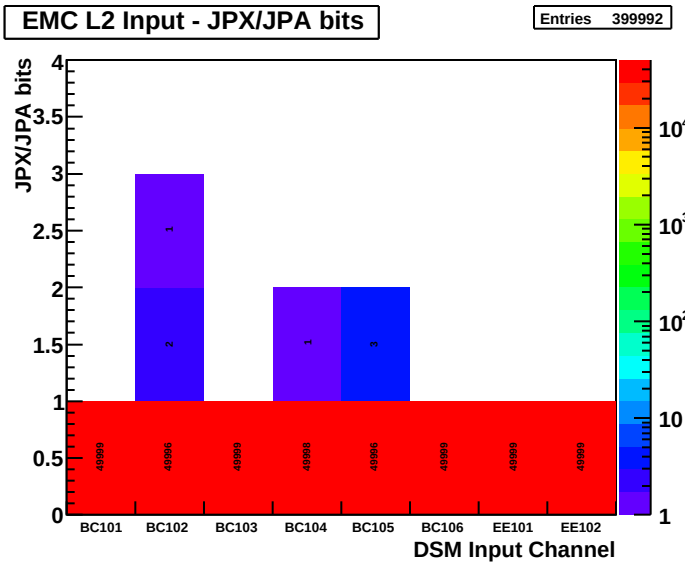

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

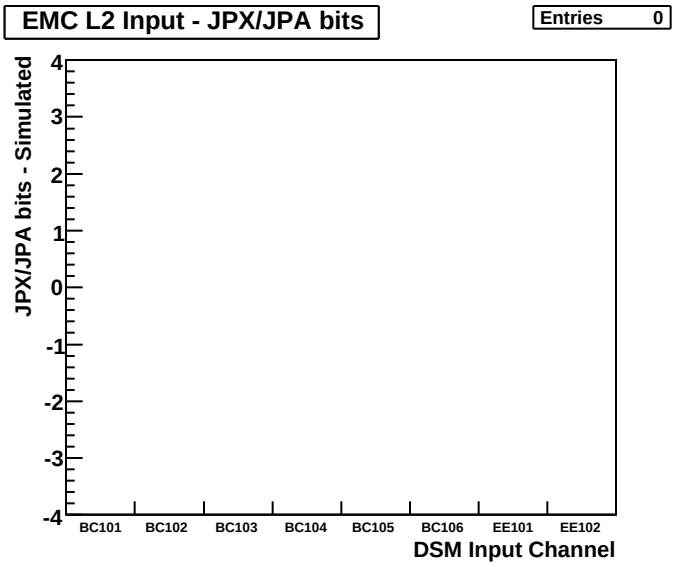

Endcap EMC L1 Input - High Eta Sum
Entries 599988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

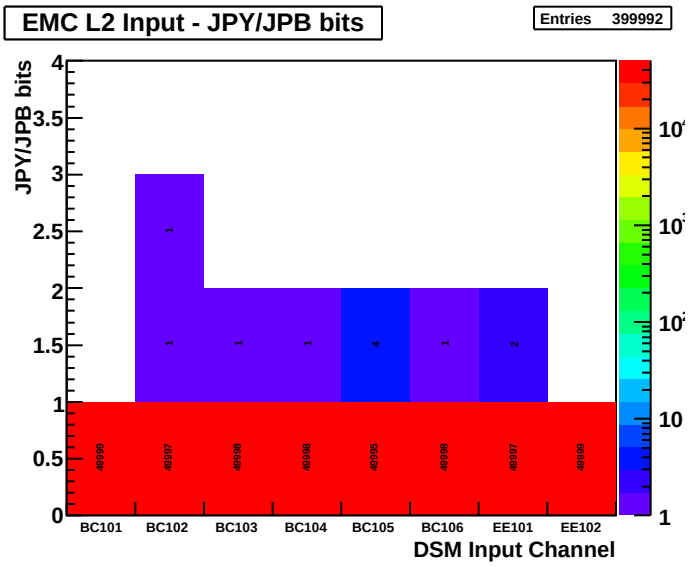

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

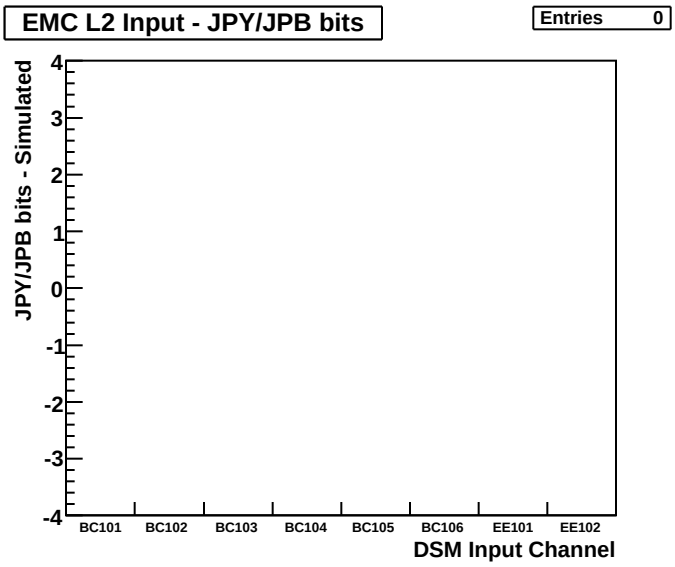

Endcap EMC L1 Input - High Tower Bits
Entries 599988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

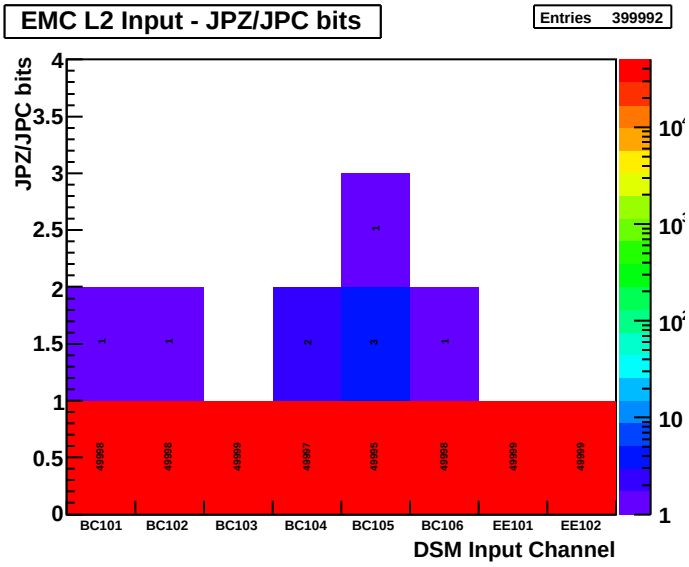

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

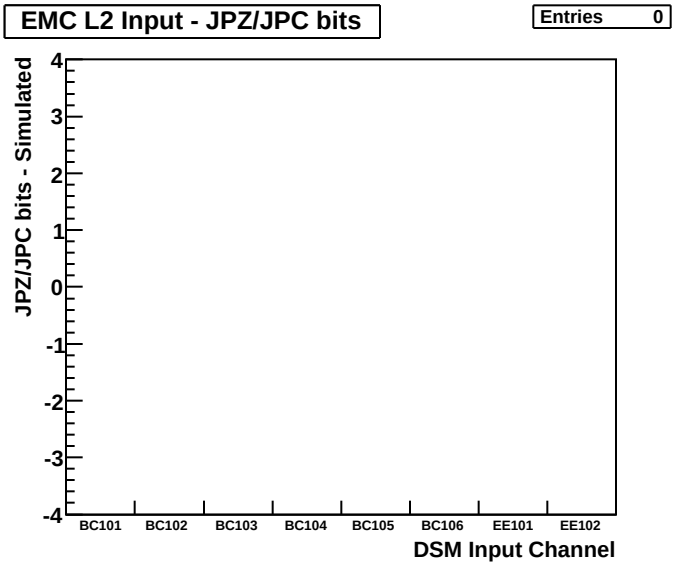

EMC L2 Input - JPX/JPA bits
Entries 399992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

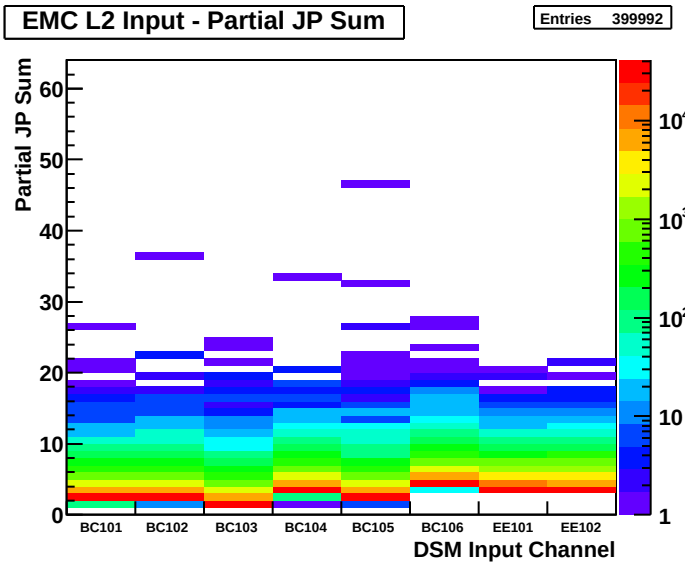

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

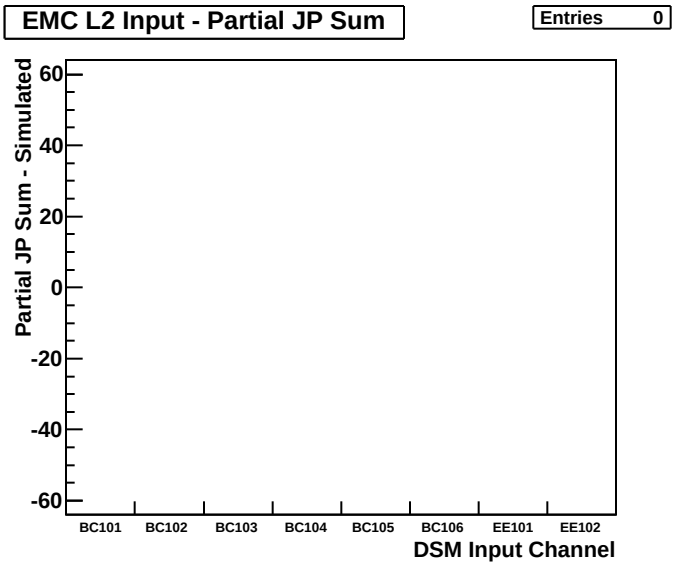

EMC L2 Input - JPY/JPB bits
Entries 399992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

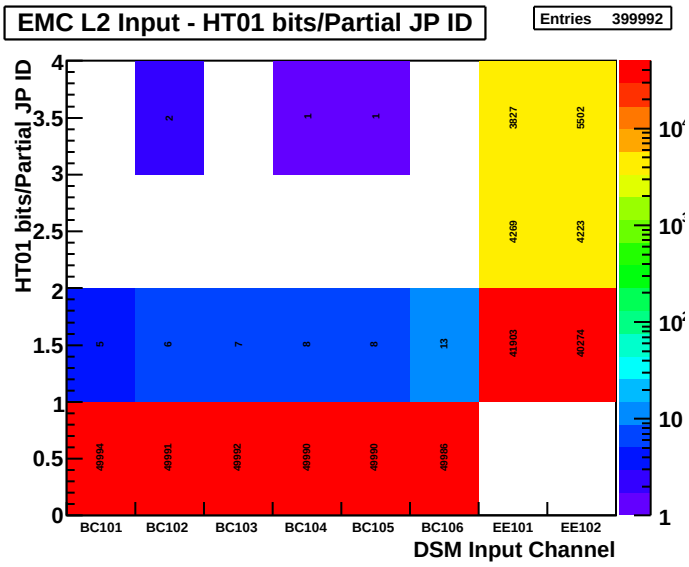

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

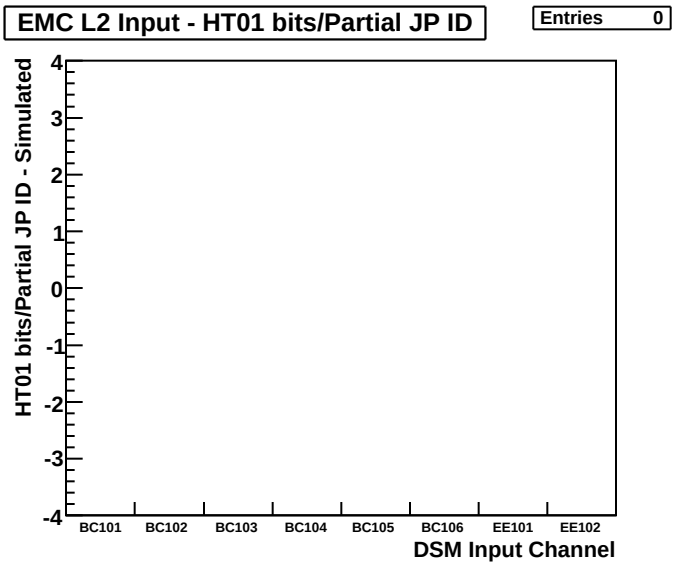

EMC L2 Input - JPZ/JPC bits
Entries 399992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

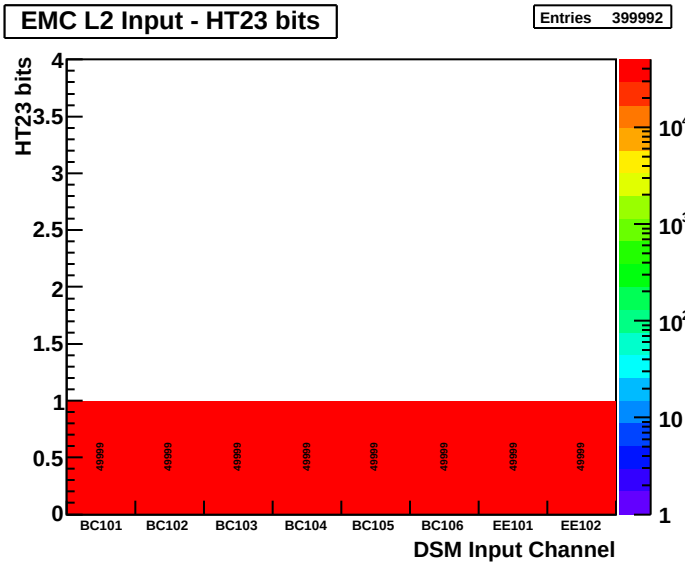

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

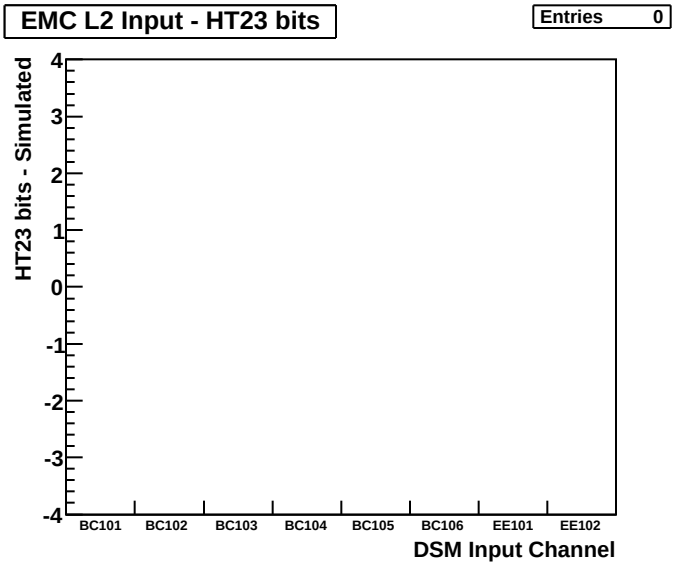

EMC L2 Input - Partial JP Sum
Entries 399992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

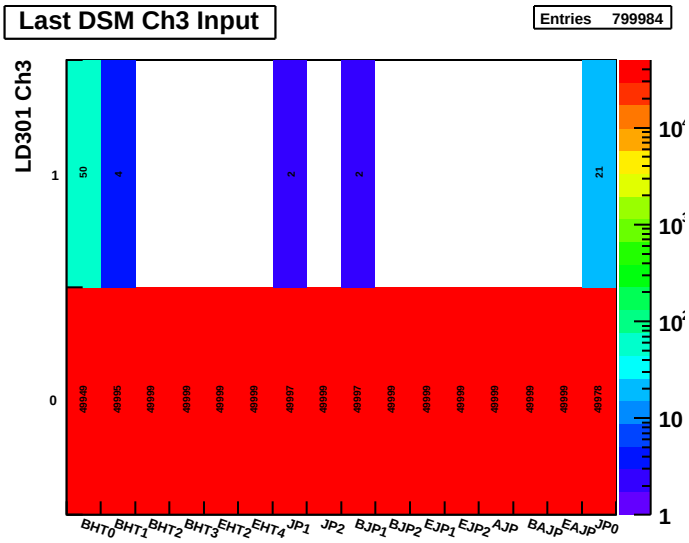

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

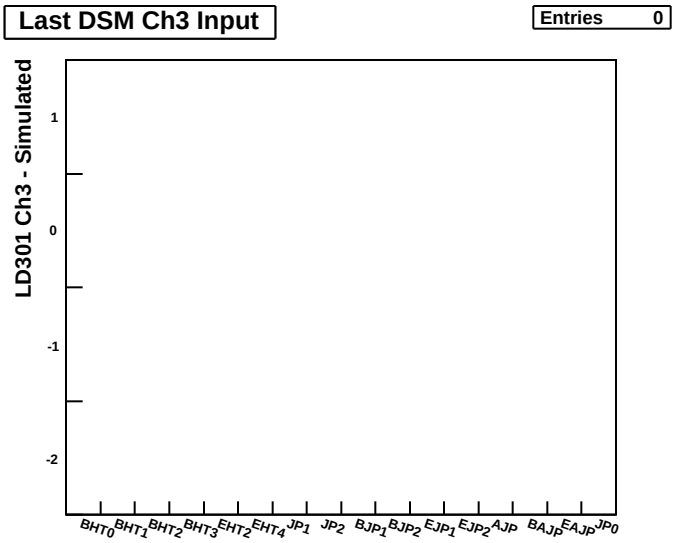

EMC L2 Input - HT01 bits/Partial JP ID
Entries 399992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

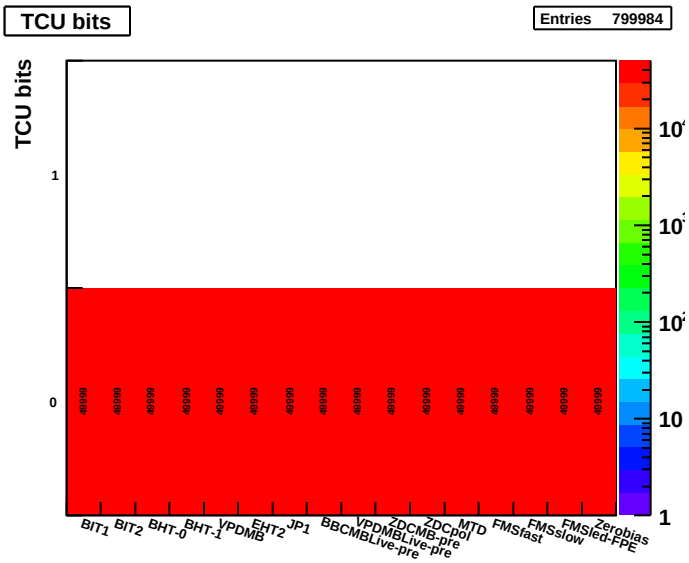

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

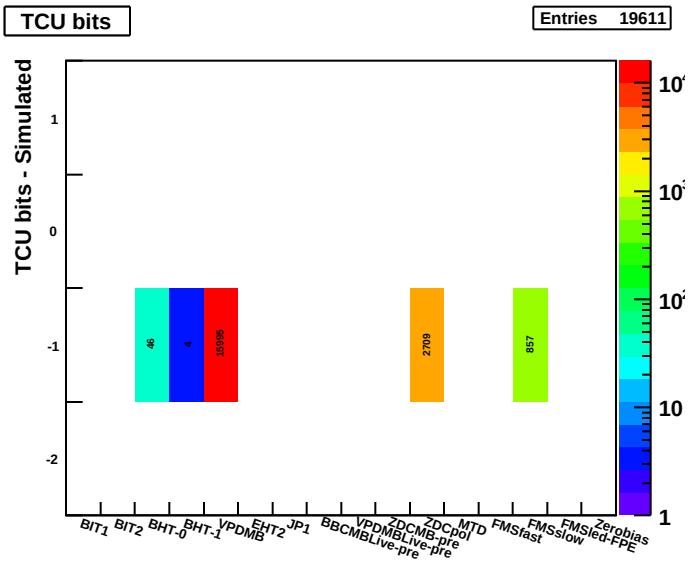

EMC L2 Input - HT23 bits
Entries 399992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

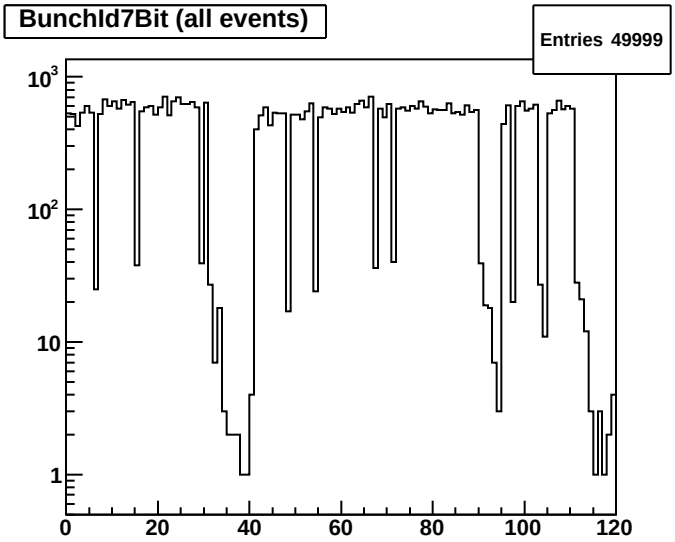

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

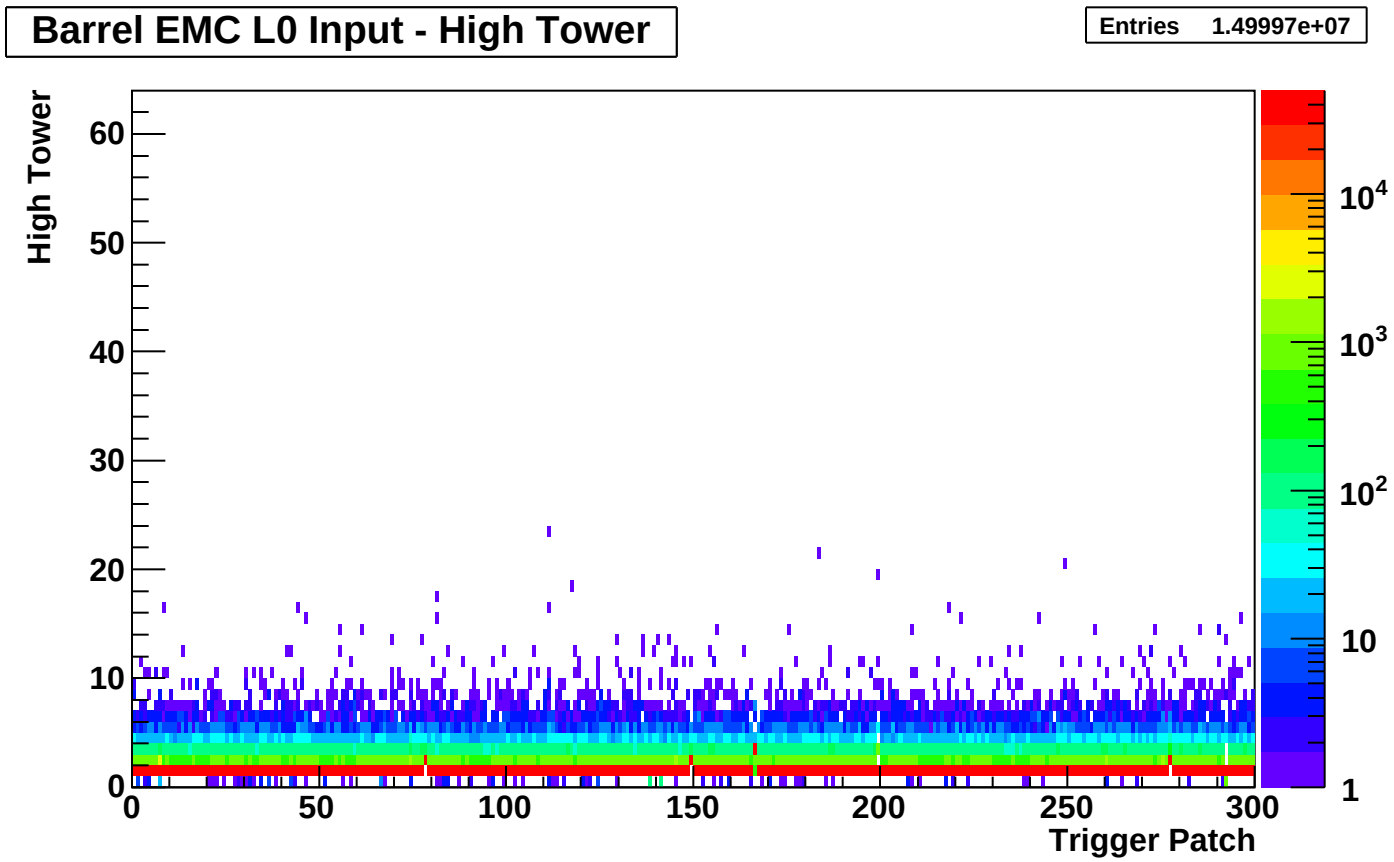

Last DSM Ch3 Input
Entries 799984
LD301 Ch3
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

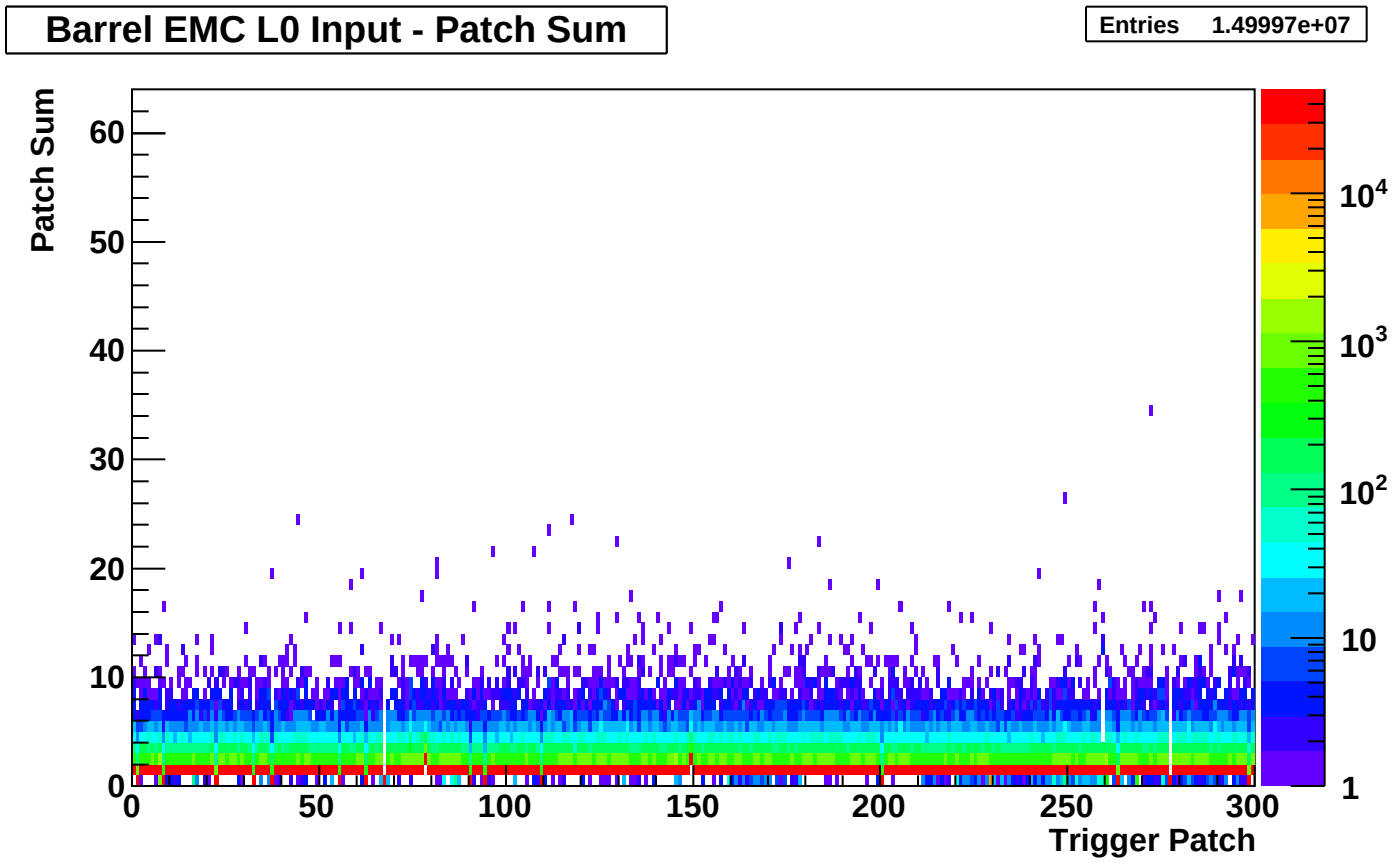

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

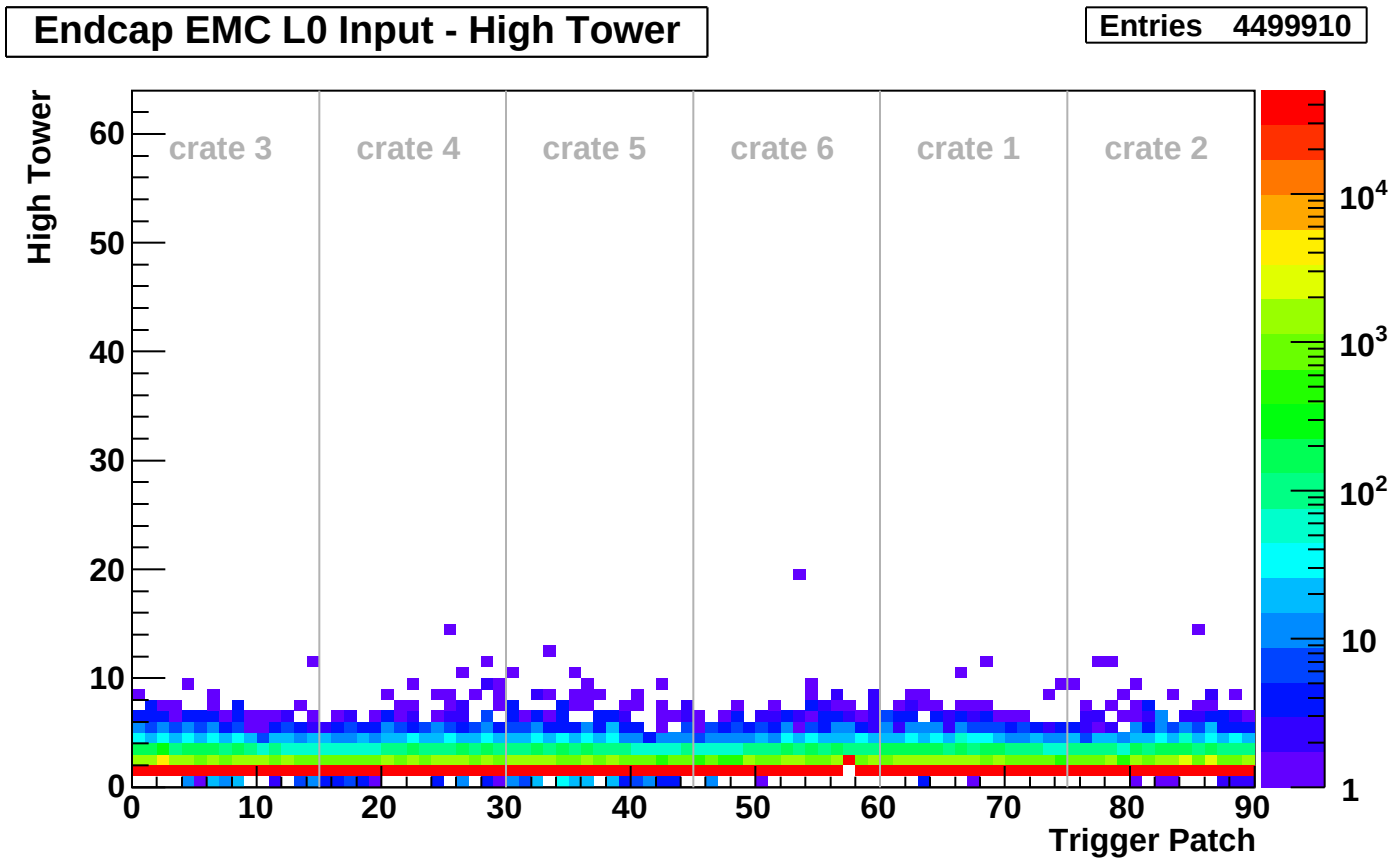

TCU bits
Entries 799984
TCU bits
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

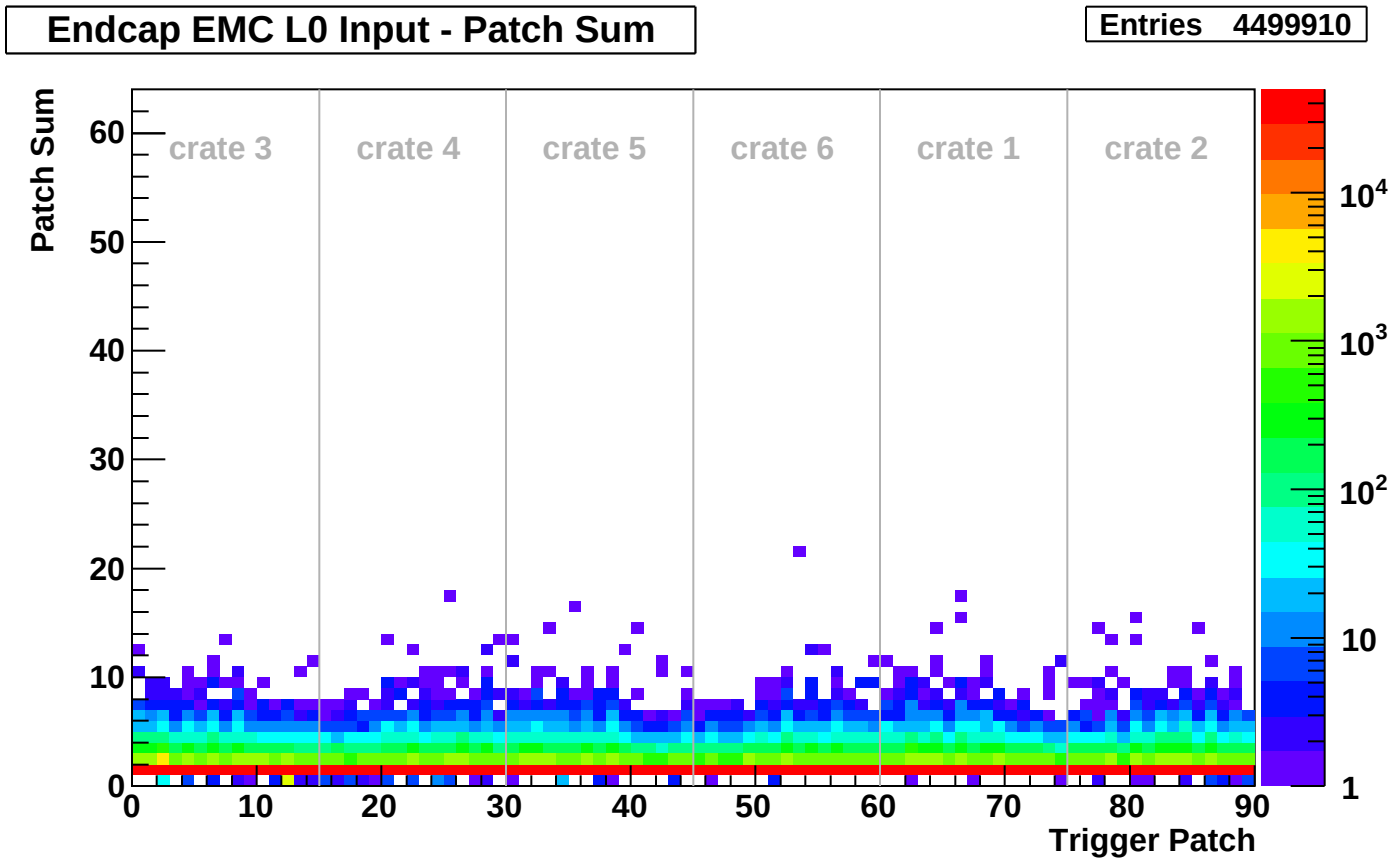

TCU bits
Entries 19611
TCU bits - Simulated
46
4
15995
2709
857
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

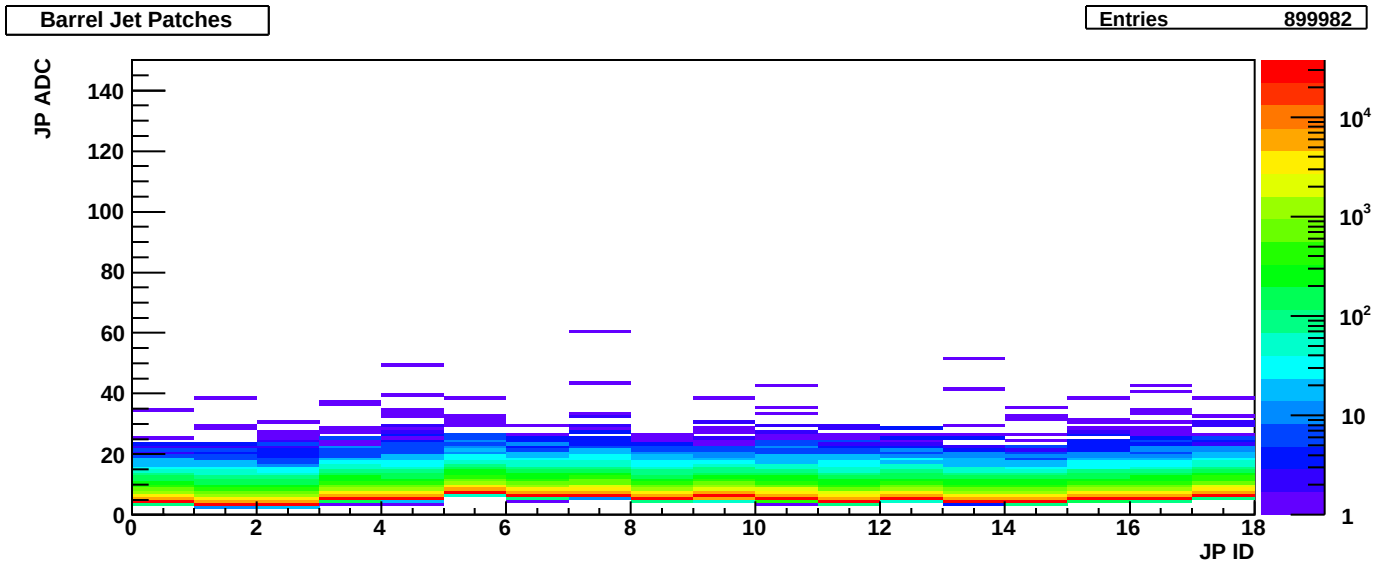

BunchId7Bit (all events)
Entries 49999

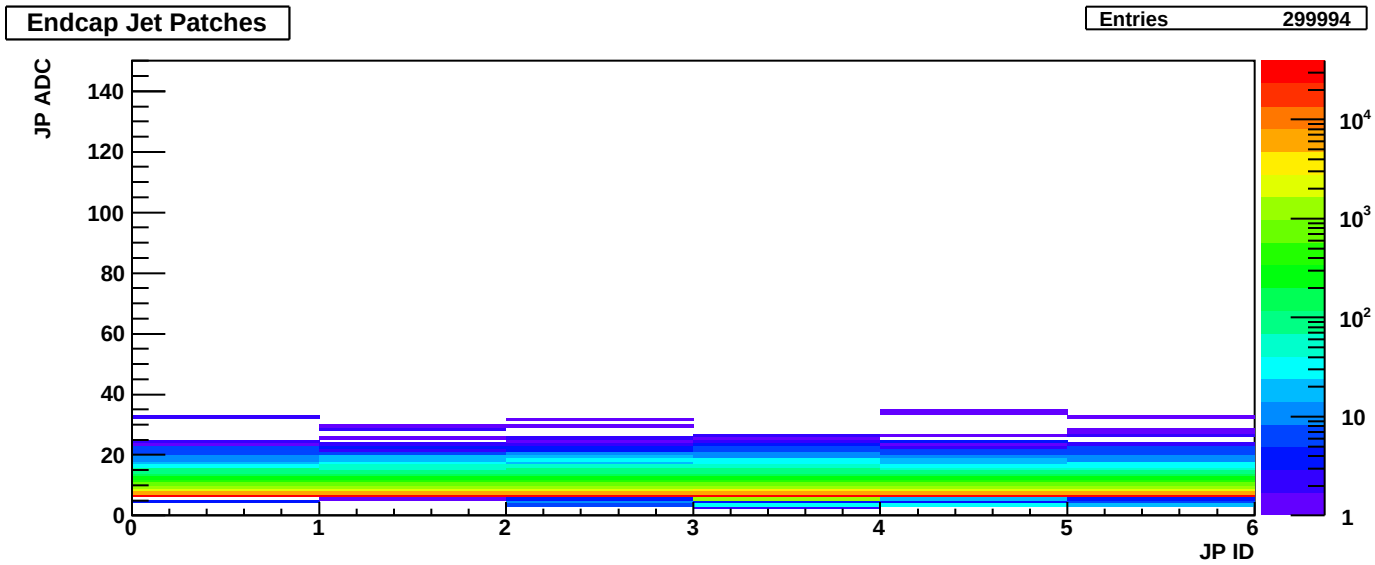

Barrel EMC L0 Input - High Tower
Entries 1.49997e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

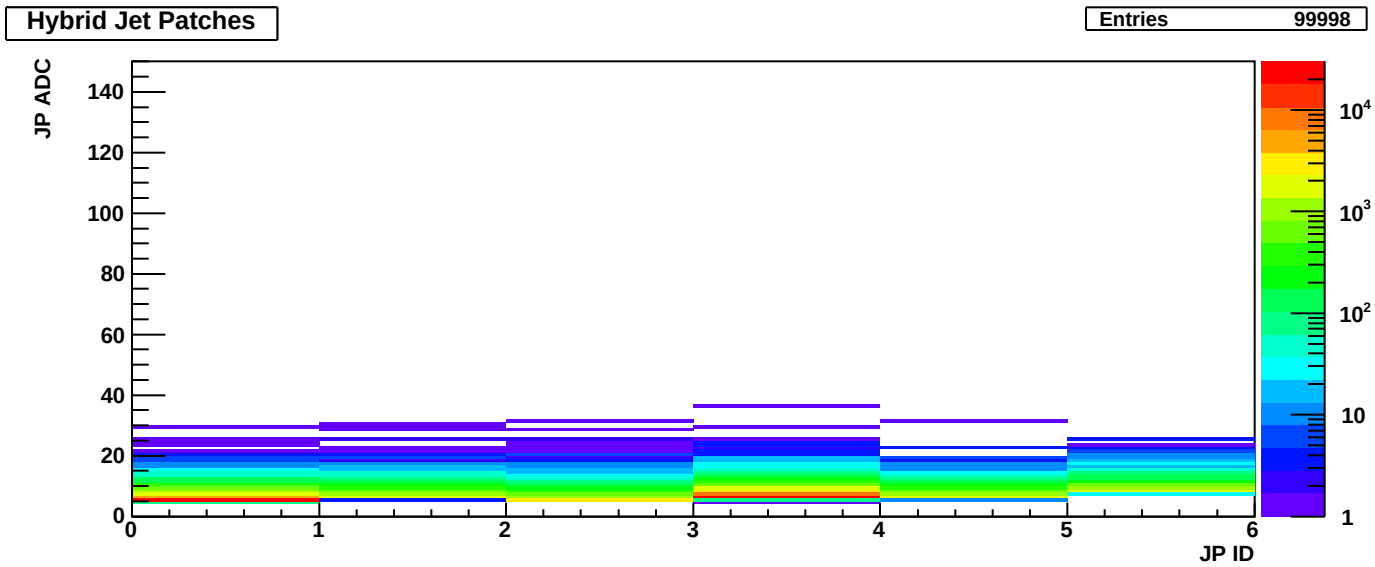

Barrel EMC L0 Input - Patch Sum
Entries 1.49997e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

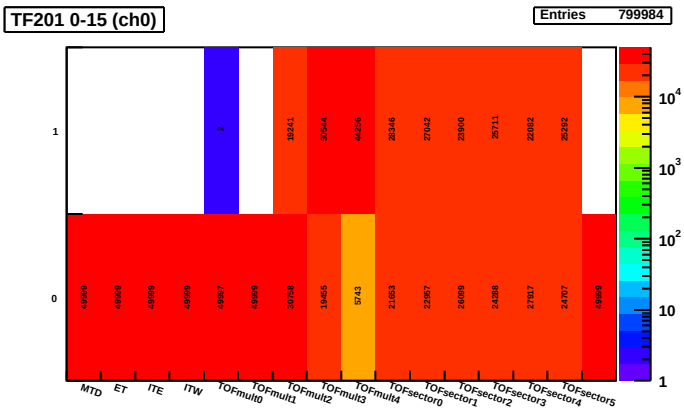

Endcap EMC L0 Input - High Tower
Entries 4499910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
$10^2$
$10^3$
$10^4$

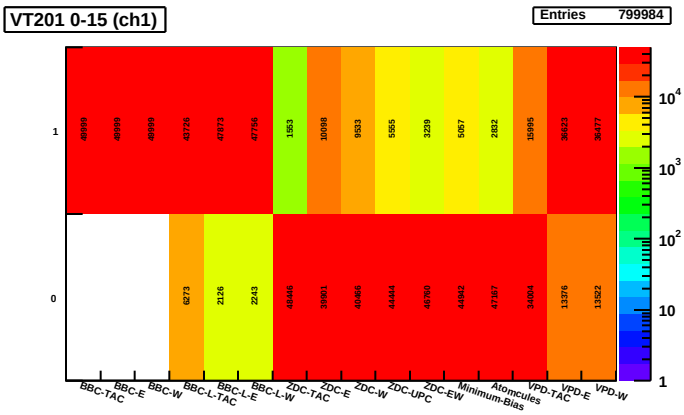

Endcap EMC L0 Input - Patch Sum
Entries 4499910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
$10^2$
$10^3$
$10^4$

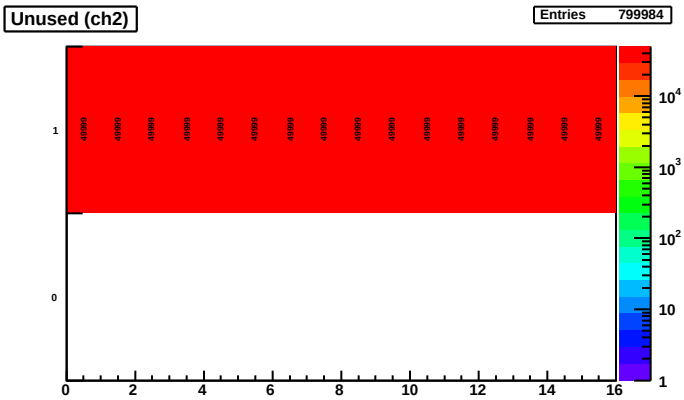

Barrel Jet Patches
Entries 899982
JP ADC
JP ID

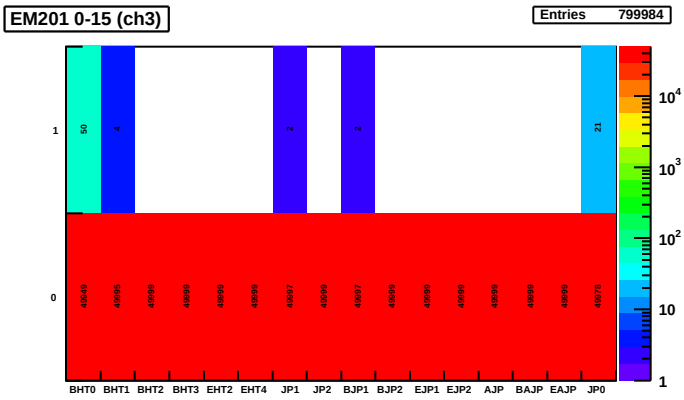

Endcap Jet Patches
Entries 299994
JP ADC
JP ID

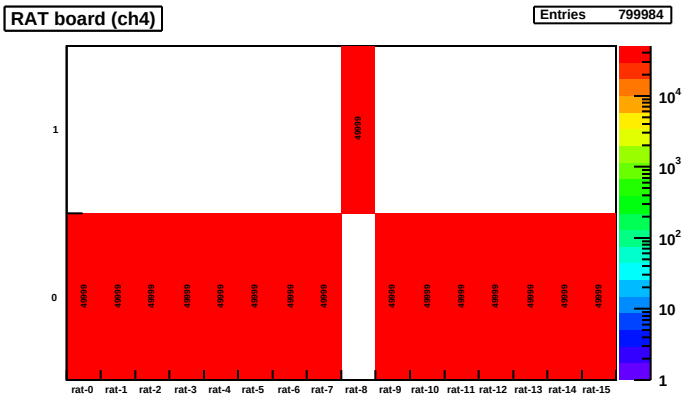

Hybrid Jet Patches
Entries 99998
JP ADC
JP ID

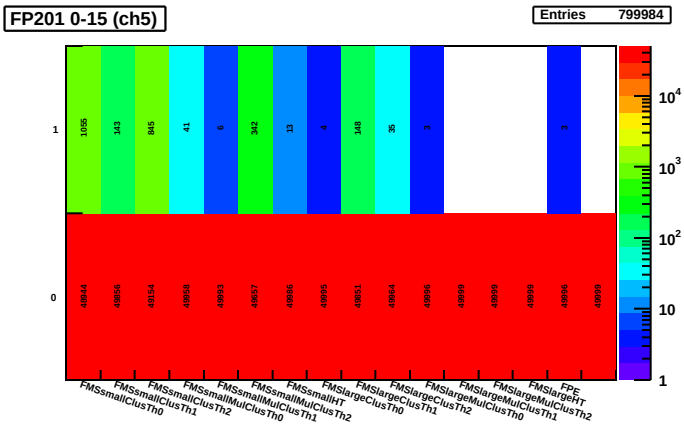

TF201 0-15 (ch0)
Entries 799984
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

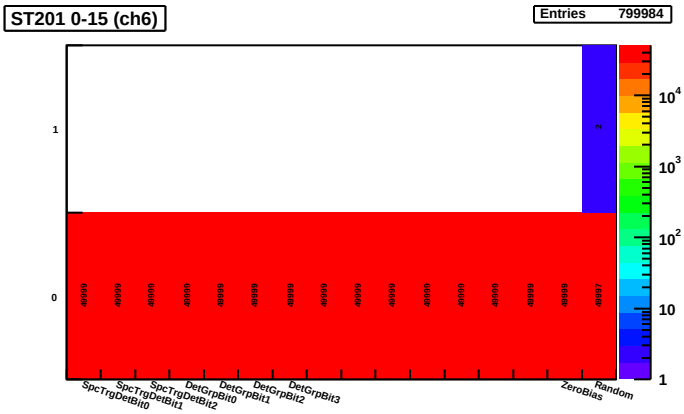

VT201 0-15 (ch1)
Entries 799984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

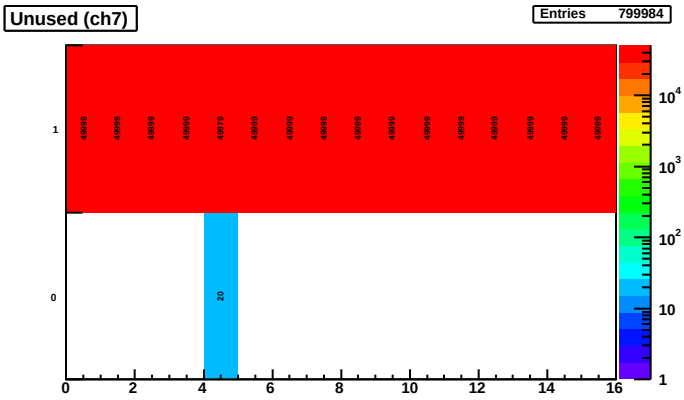

Unused (ch2)
Entries 799984

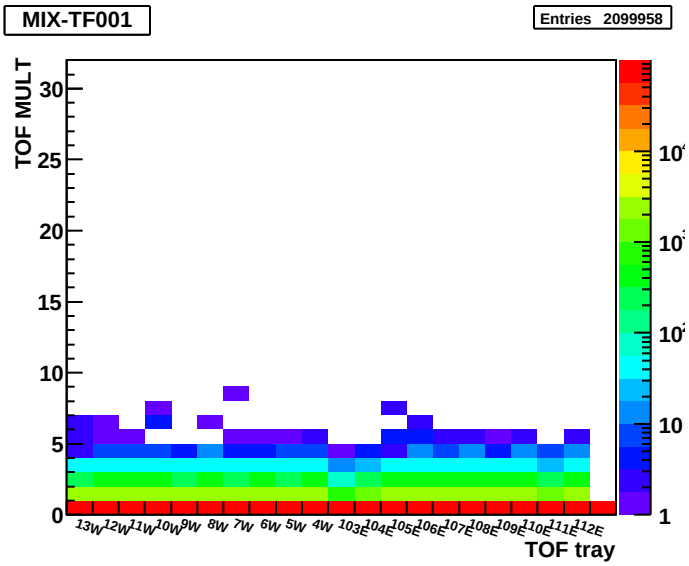

EM201 0-15 (ch3)
Entries 799984
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

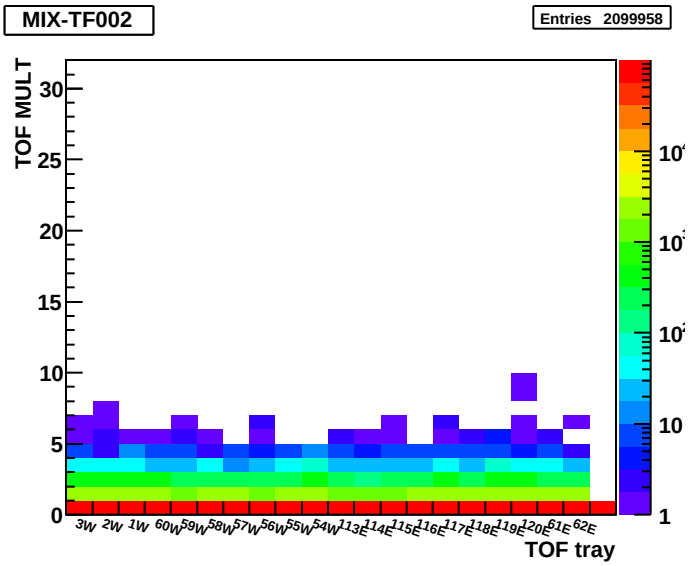

RAT board (ch4)
Entries 799984
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

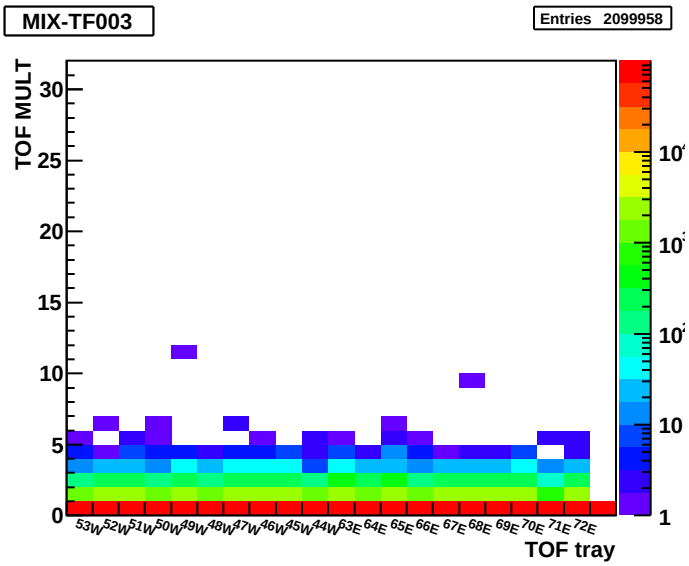

FP201 0-15 (ch5)
Entries 799984
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

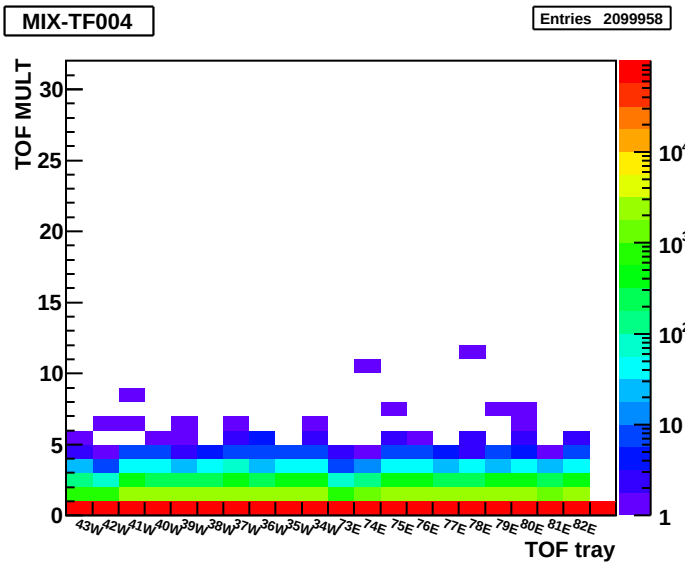

ST201 0-15 (ch6)
Entries 799984
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

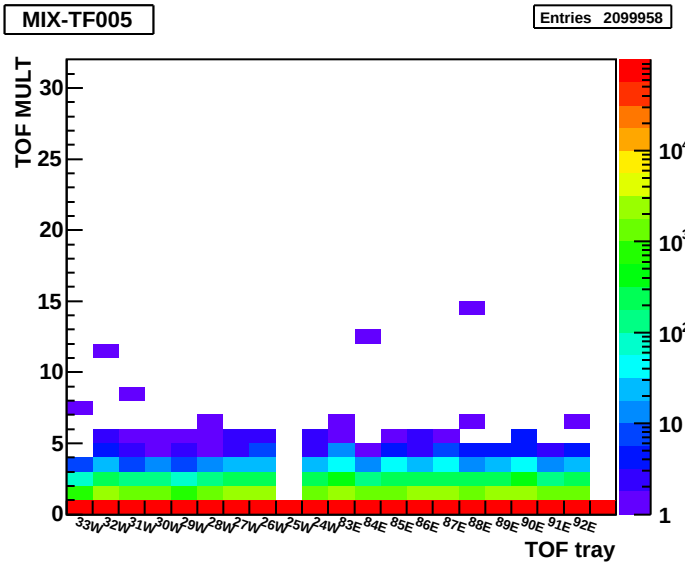

Unused (ch7)
Entries 799984

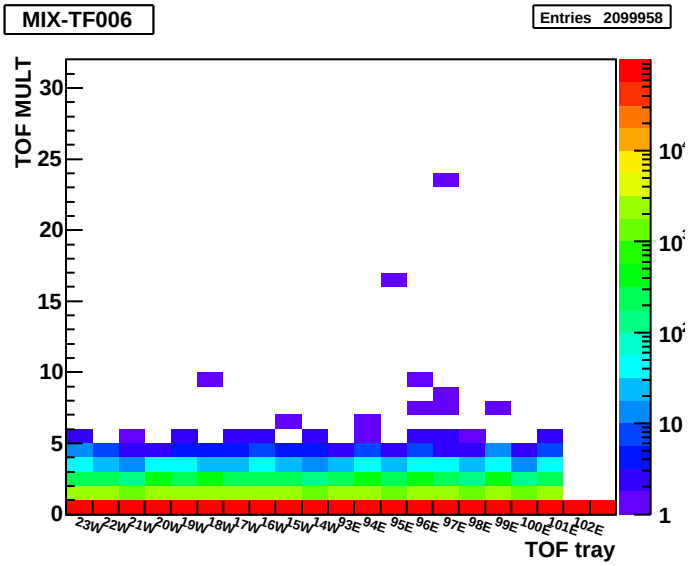

MIX-TF001
Entries 2099958
TOF MULT
TOF tray

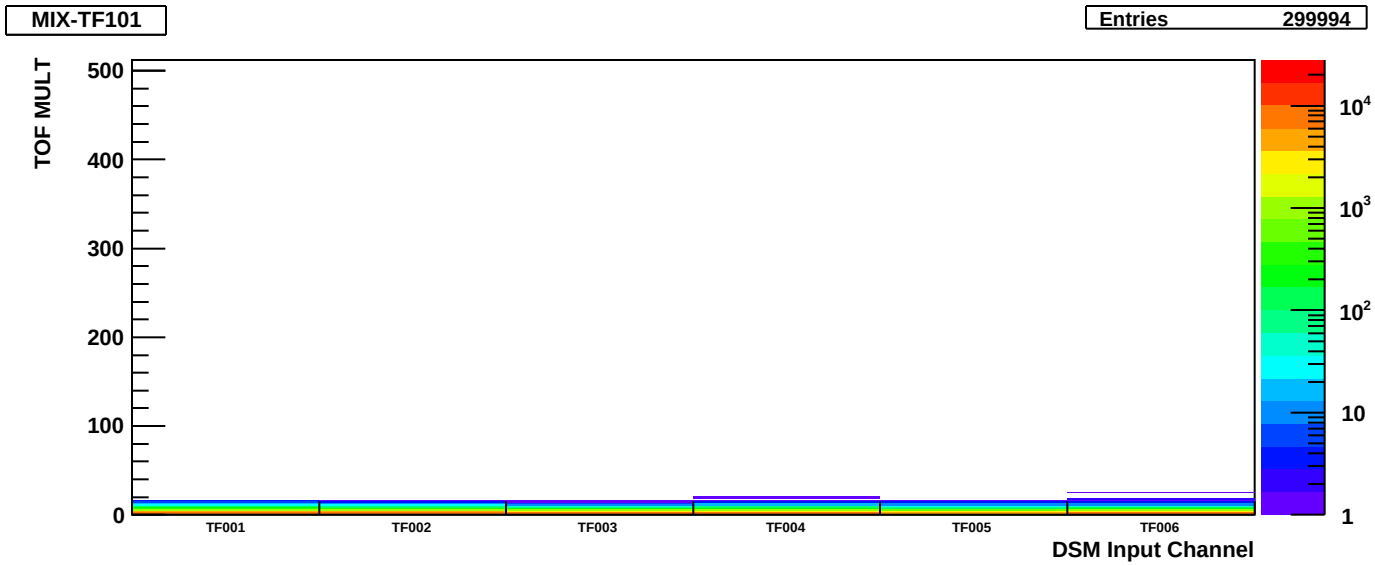

MIX-TF002
Entries 2099958
TOF MULT
TOF tray

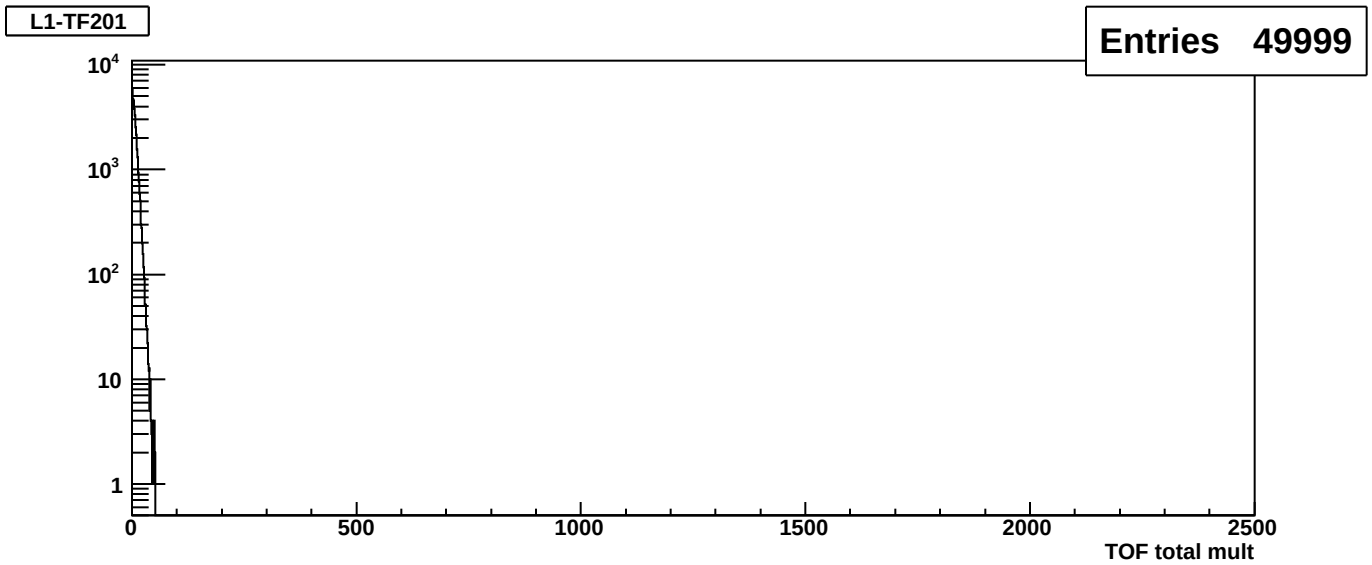

MIX-TF003
Entries 2099958
TOF MULT
TOF tray

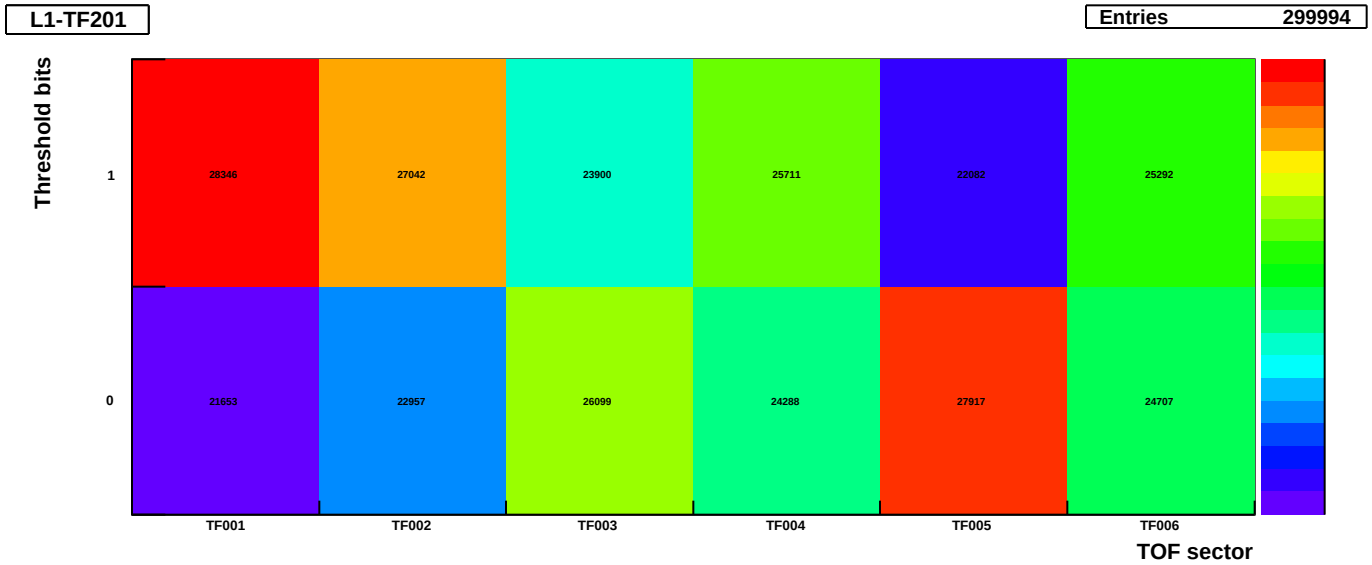

MIX-TF004
Entries 2099958
TOF MULT
TOF tray

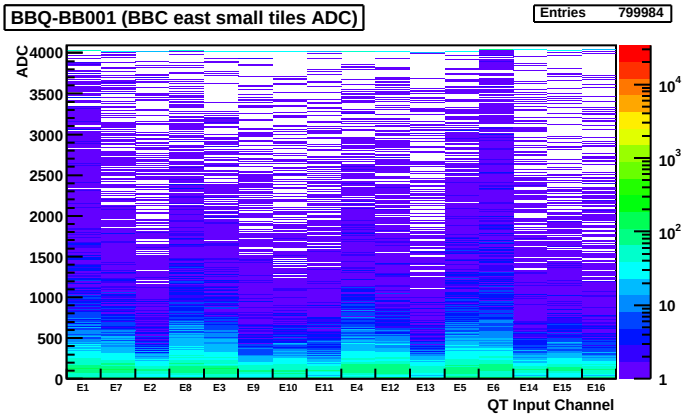

MIX-TF005
Entries 2099958
TOF MULT
TOF tray

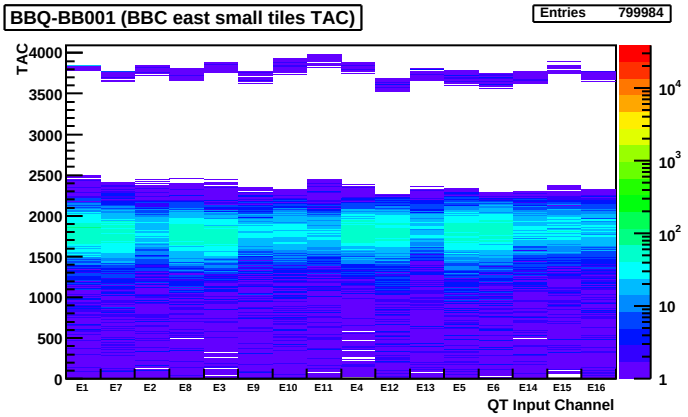

MIX-TF006
Entries 2099958
TOF MULT
TOF tray

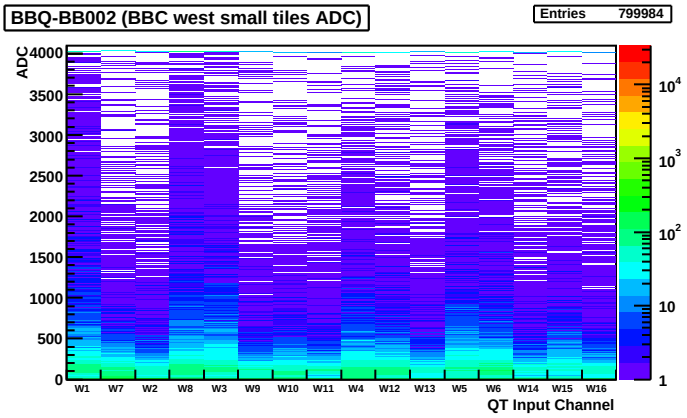

MIX-TF101
Entries 299994
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^4$
$10^3$
$10^2$
10
1

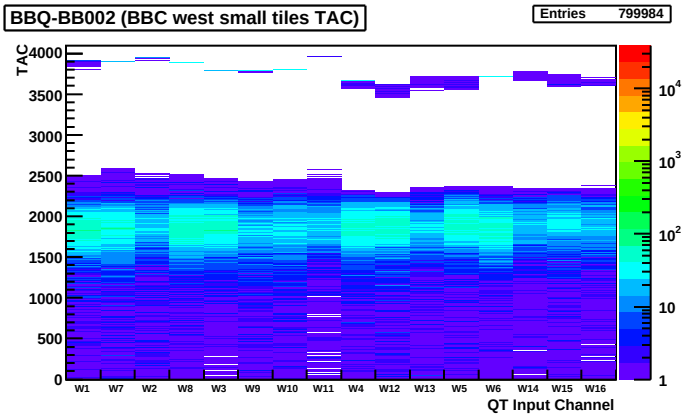

L1-TF201
Entries 49999
$10^4$
$10^3$
$10^2$
10
1
0
500
1000
1500
2000
2500
TOF total mult

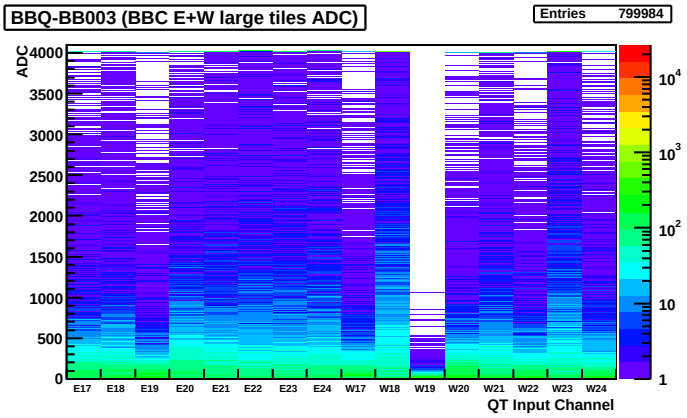

L1-TF201
Entries 299994
Threshold bits
1
0
28346
27042
23900
25711
22082
25292
21653
22957
26099
24288
27917
24707
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

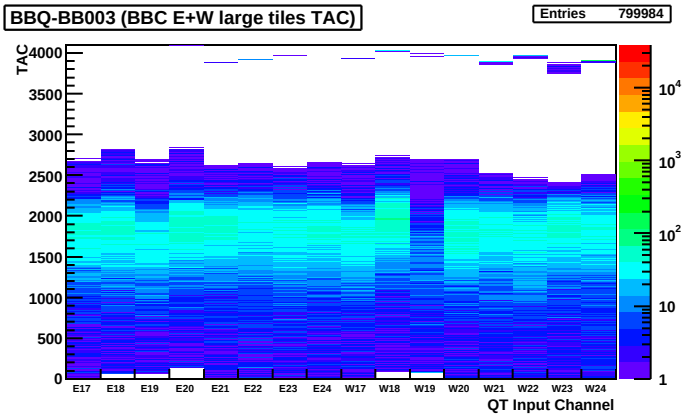

BBQ-BB001 (BBC east small tiles ADC)
Entries 799984
ADC
QT Input Channel

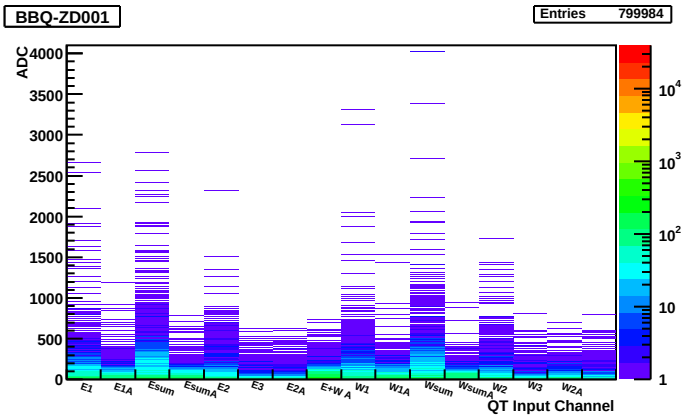

BBQ-BB001 (BBC east small tiles TAC)
Entries 799984
TAC
QT Input Channel

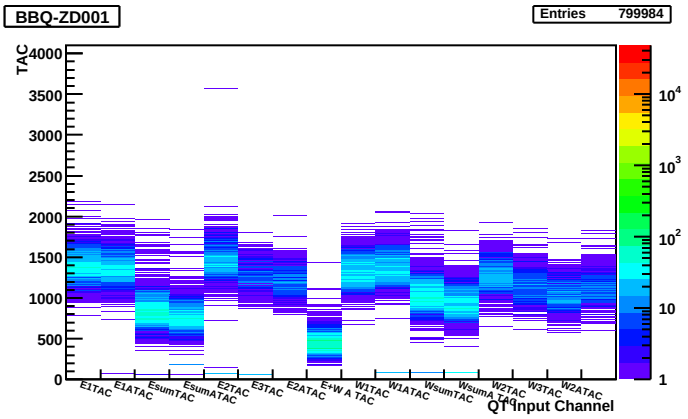

BBQ-BB002 (BBC west small tiles ADC)
Entries 799984
ADC
QT Input Channel

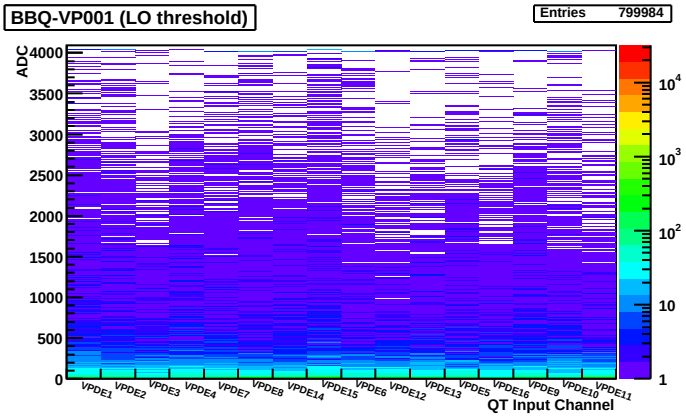

BBQ-BB002 (BBC west small tiles TAC)
Entries 799984
TAC
QT Input Channel

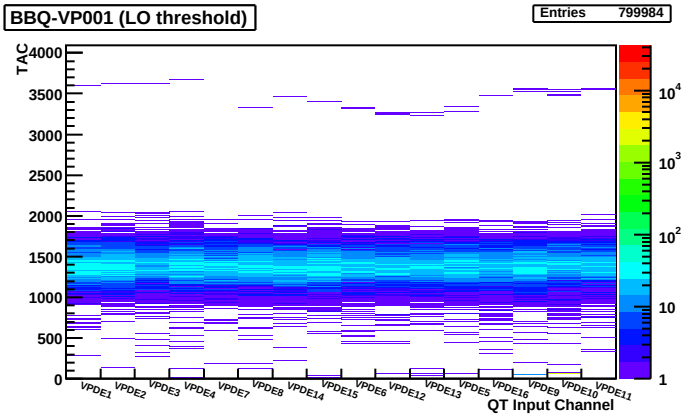

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 799984
ADC
QT Input Channel

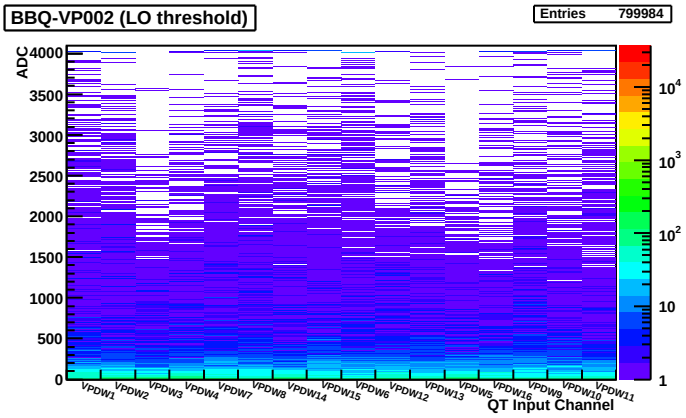

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 799984
TAC
QT Input Channel

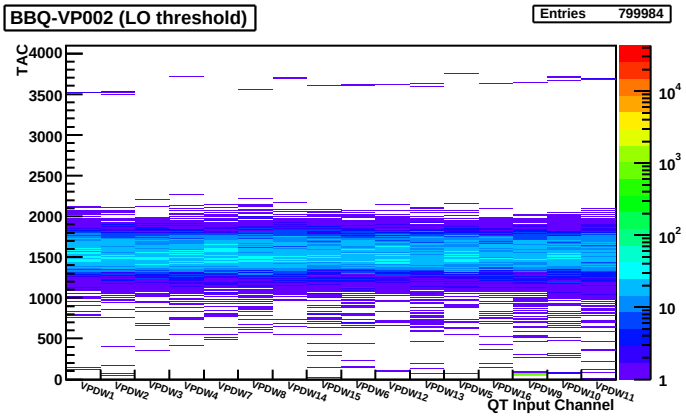

BBQ-ZD001
Entries 799984
ADC
QT Input Channel

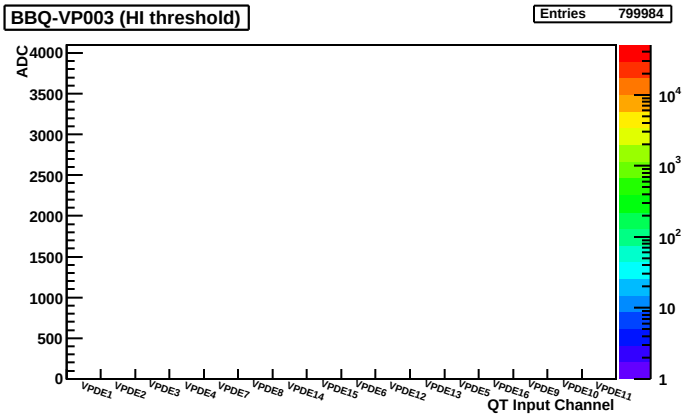

BBQ-ZD001
Entries 799984
TAC
QT Input Channel

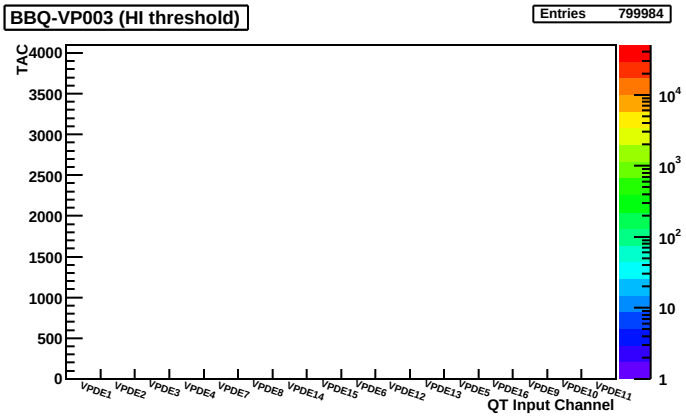

BBQ-VP001 (LO threshold)
Entries 799984
ADC
QT Input Channel

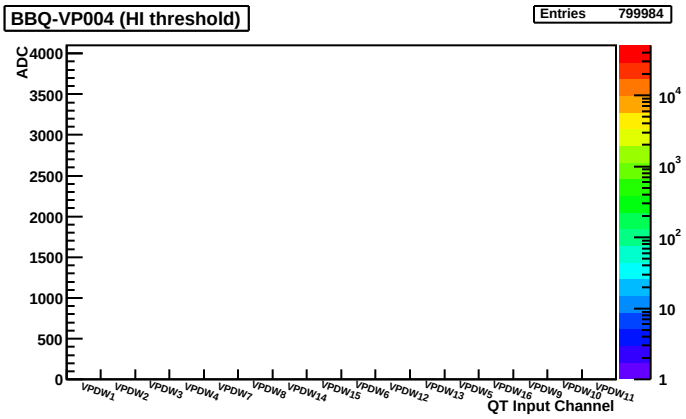

BBQ-VP001 (LO threshold)
Entries 799984
TAC
QT Input Channel

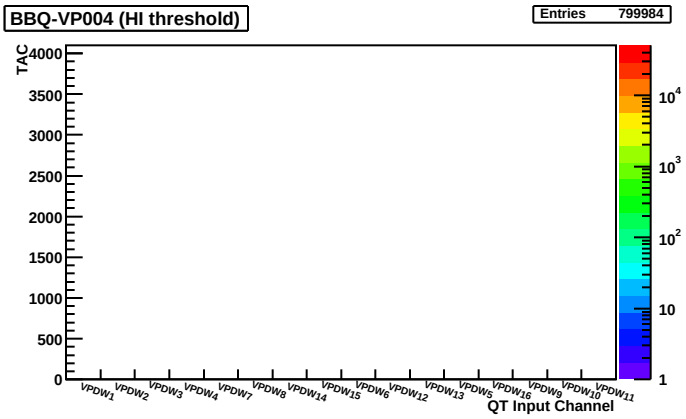

BBQ-VP002 (LO threshold)
Entries 799984
ADC
QT Input Channel

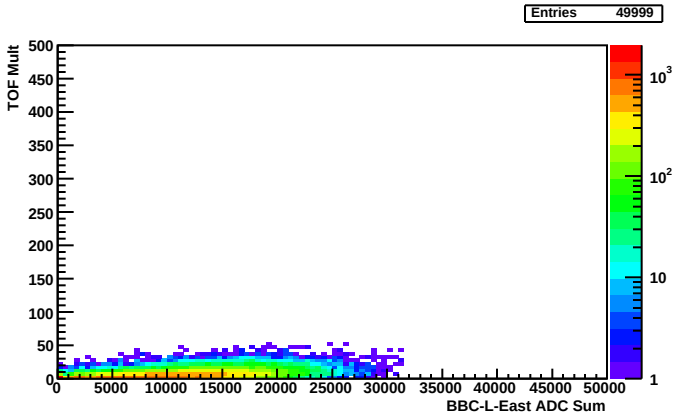

BBQ-VP002 (LO threshold)
Entries 799984
TAC
QT Input Channel

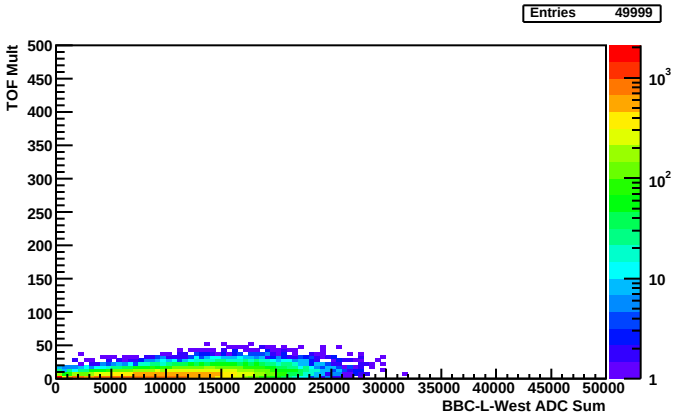

BBQ-VP003 (HI threshold)
Entries 799984
ADC
QT Input Channel

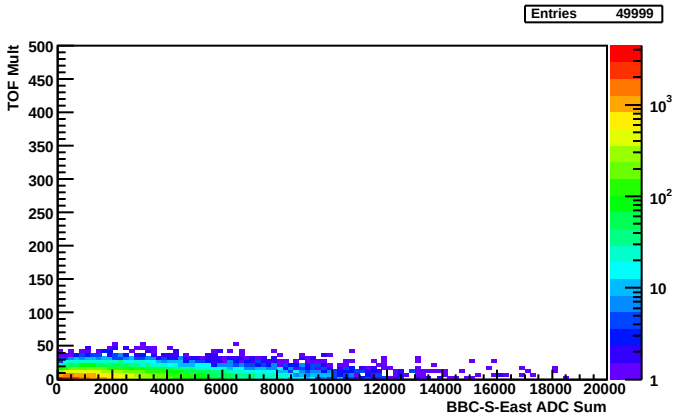

BBQ-VP003 (HI threshold)
Entries 799984
TAC
QT Input Channel

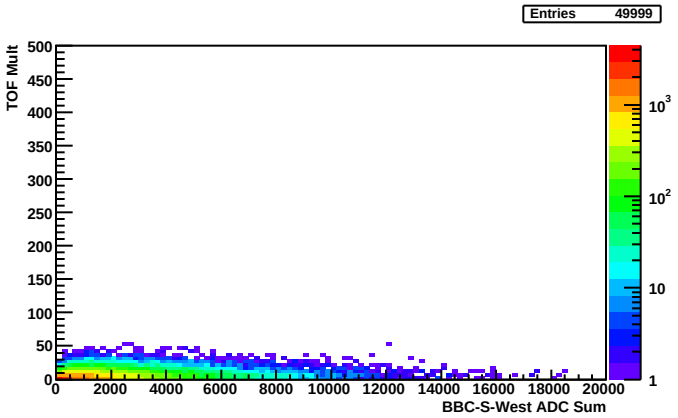

BBQ-VP004 (HI threshold)
Entries 799984
ADC
QT Input Channel

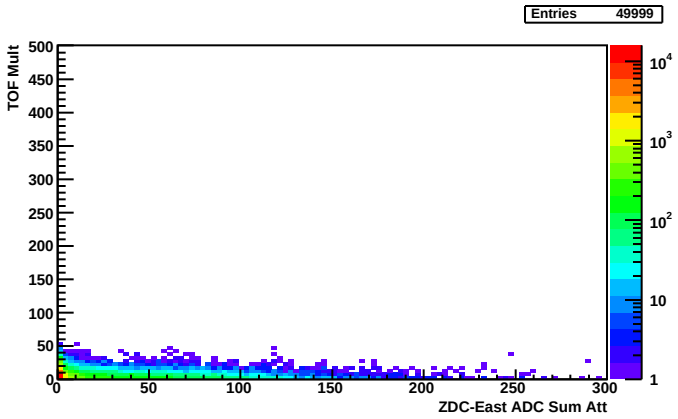

BBQ-VP004 (HI threshold)
Entries 799984
TAC
QT Input Channel

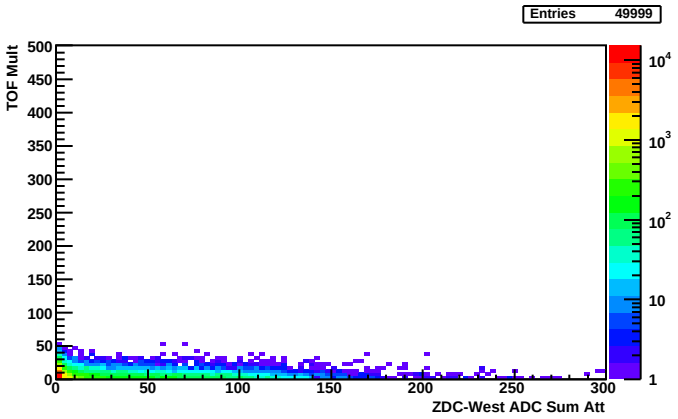

Entries 49999
TOF Mult
BBC-L-East ADC Sum

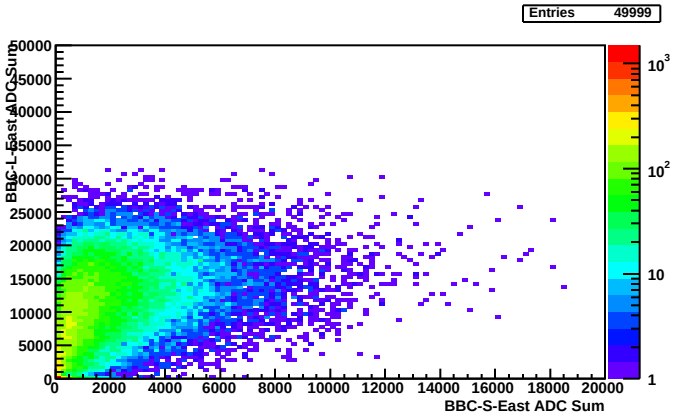

Entries 49999
TOF Mult
BBC-L-West ADC Sum

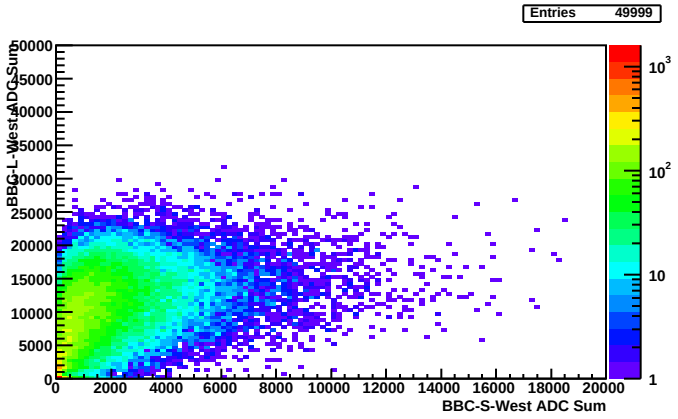

Entries 49999
TOF Mult
BBC-S-East ADC Sum

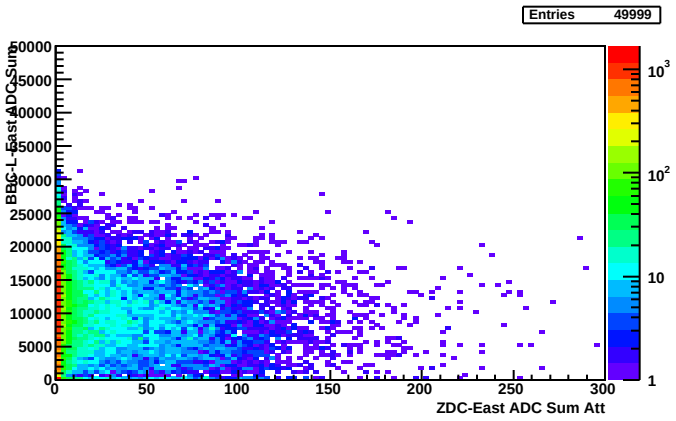

Entries 49999
TOF Mult
BBC-S-West ADC Sum

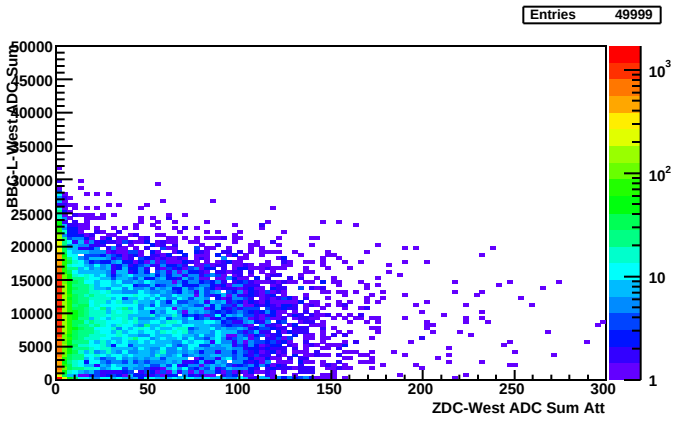

Entries 49999
TOF Mult
ZDC-East ADC Sum Att

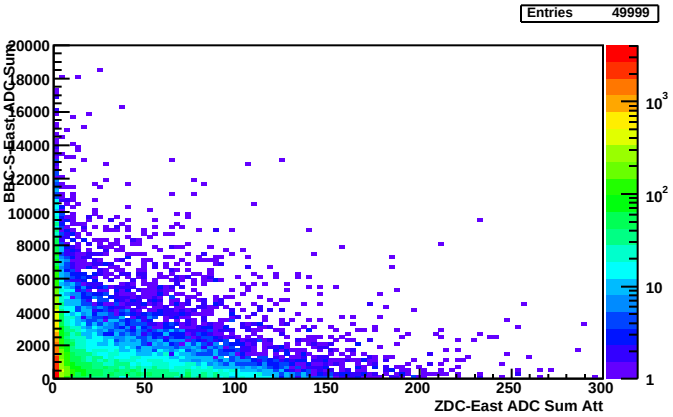

Entries 49999
TOF Mult
ZDC-West ADC Sum Att

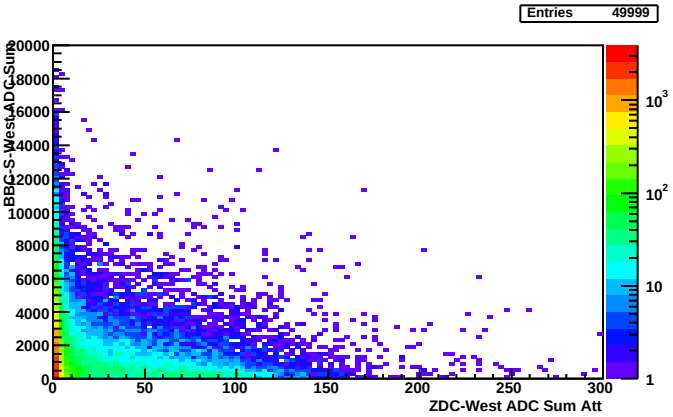

Entries 49999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

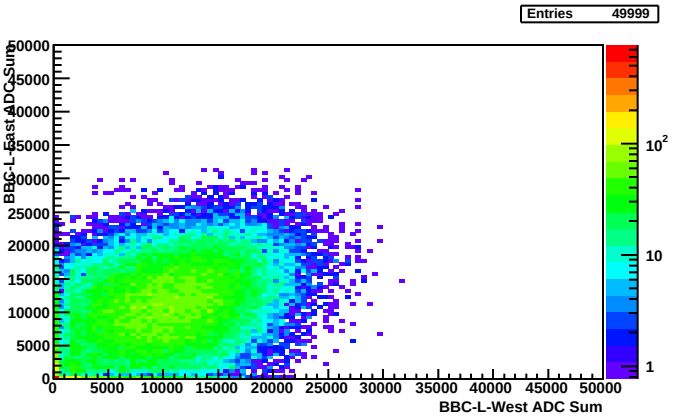

Entries 49999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

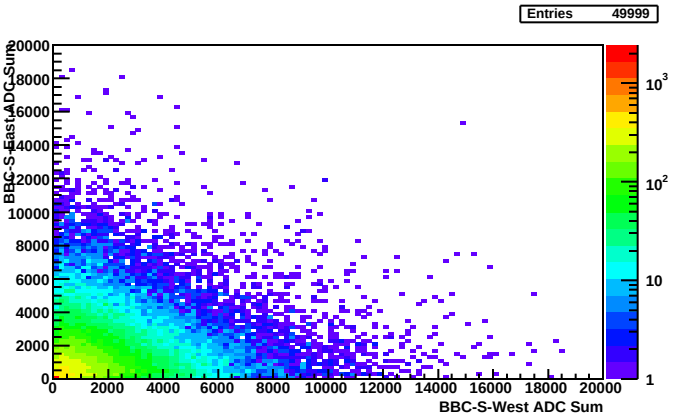

Entries 49999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

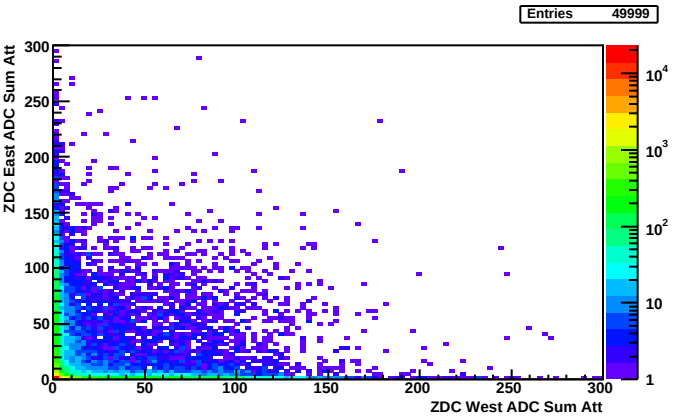

Entries 49999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

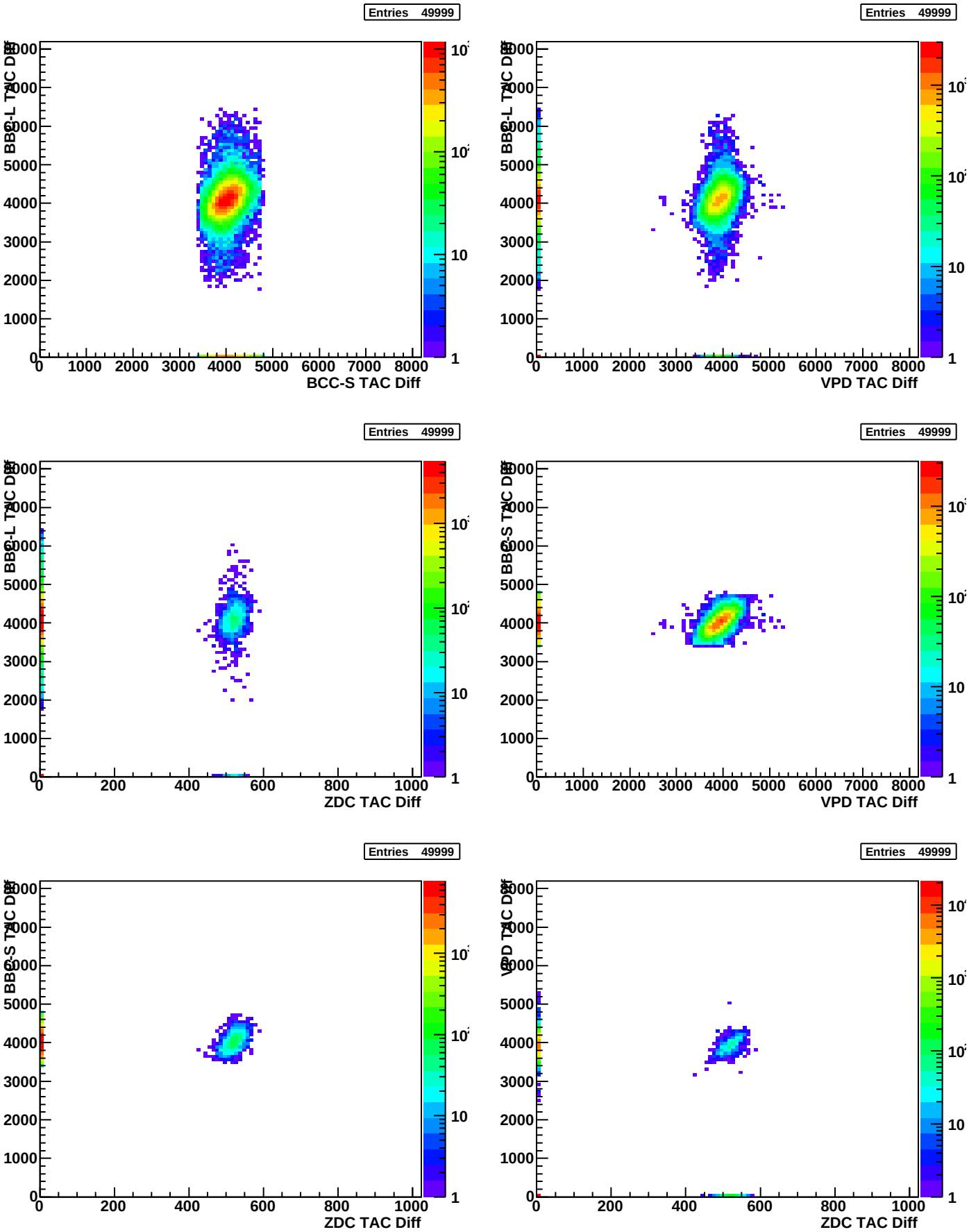

Entries 49999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

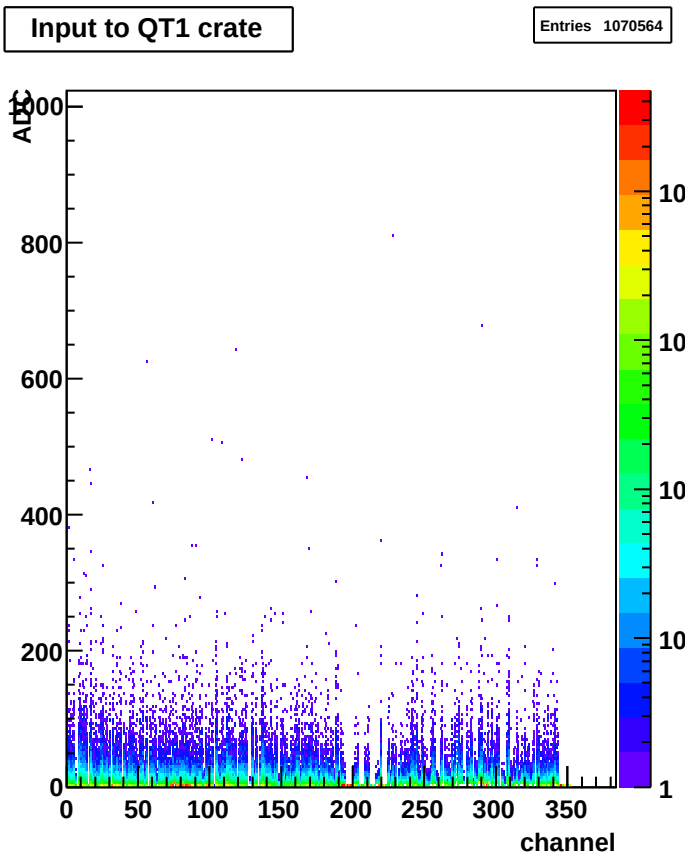

Entries 49999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

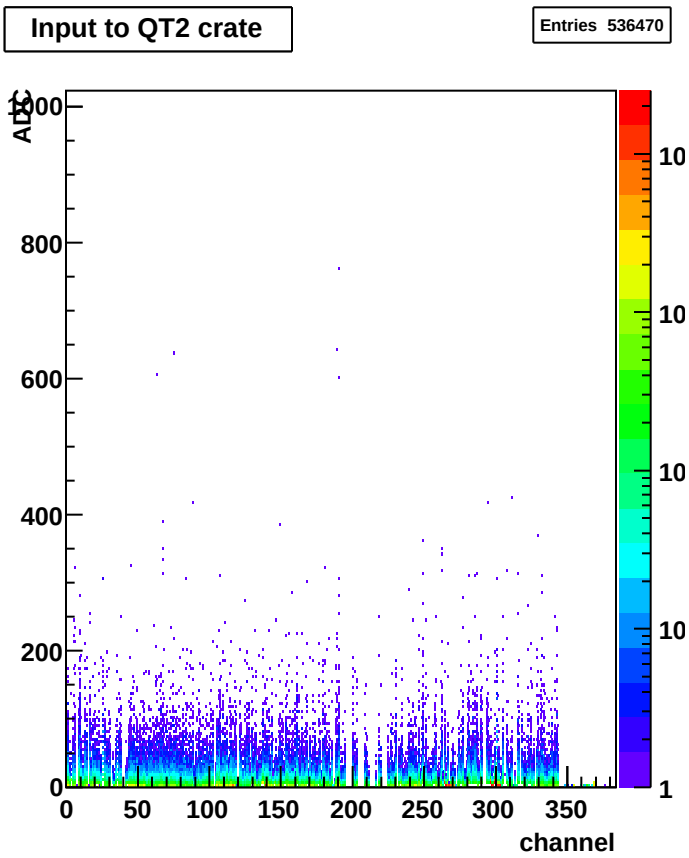

Entries 49999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

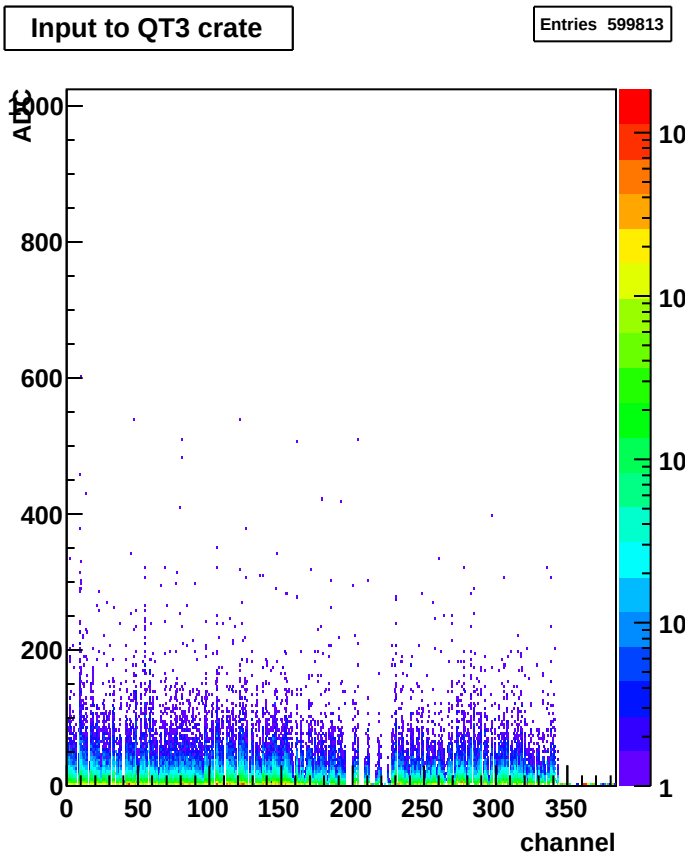

Entries 49999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

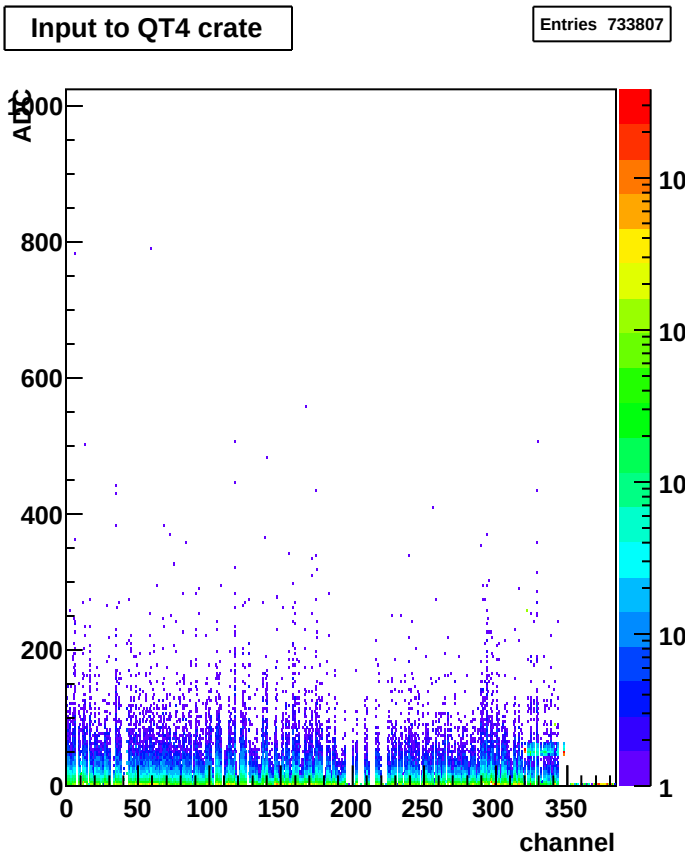

Entries 49999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

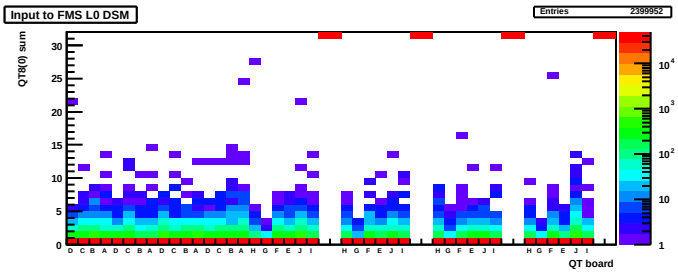

Entries 49999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 49999
BBC-L TAC Diff
VPD TAC Diff
Entries 49999
BBC-L TAC Diff
ZDC TAC Diff
Entries 49999
BBC-S TAC Diff
VPD TAC Diff
Entries 49999
BBC-S TAC Diff
ZDC TAC Diff
Entries 49999
VPD TAC Diff
ZDC TAC Diff

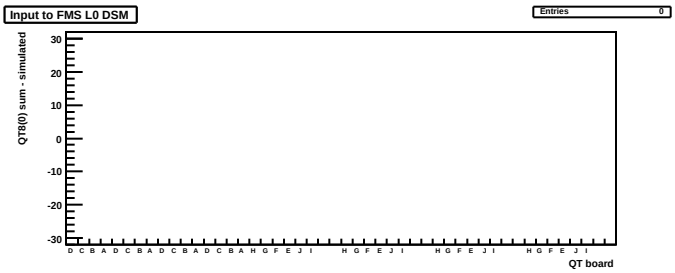

Input to QT1 crate
Entries 1070564
ADC
channel

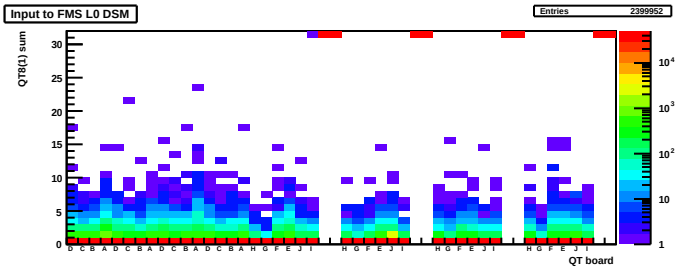

Input to QT2 crate
Entries 536470
ADC
channel

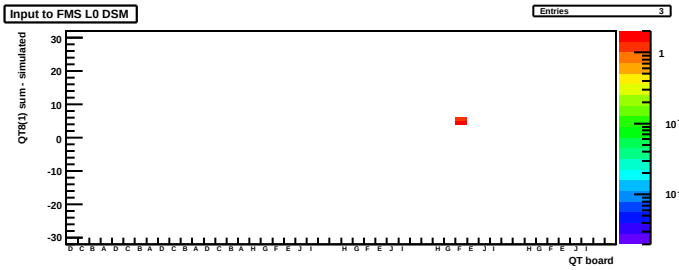

Input to QT3 crate
Entries 599813
ADC
channel

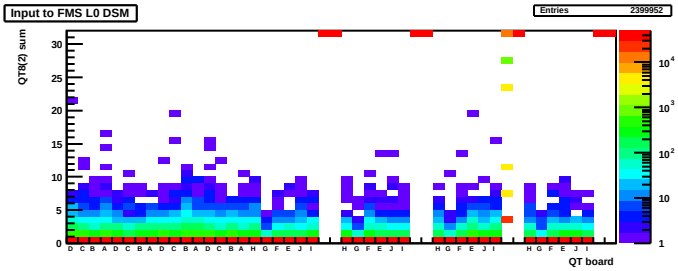

Input to QT4 crate
Entries 733807
ADC
channel

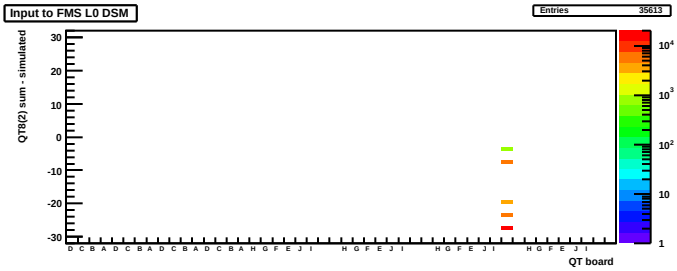

Input to FMS L0 DSM
Entries 2399952
QT8(0) sum
QT board

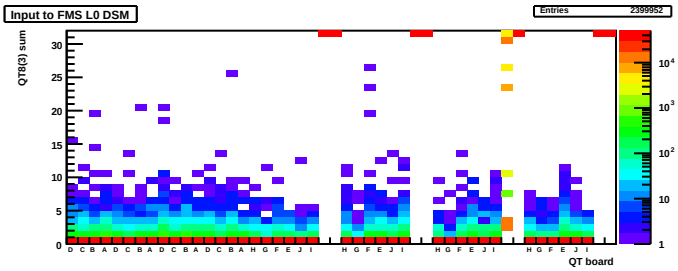

Input to FMS L0 DSM
Entries 0
QT8(0) sum - simulated
QT board

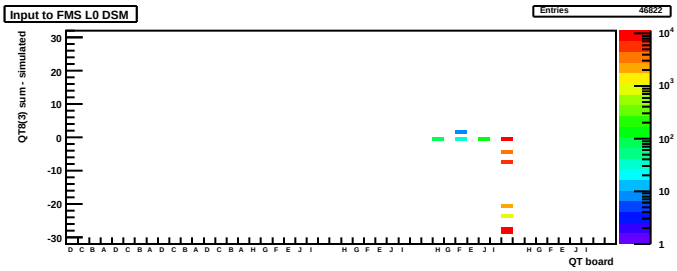

Input to FMS L0 DSM
Entries 2399952
QT8(1) sum
QT board

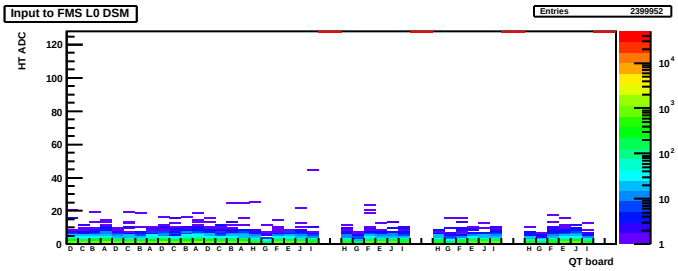

Input to FMS L0 DSM
Entries 3
QT8(1) sum - simulated
QT board

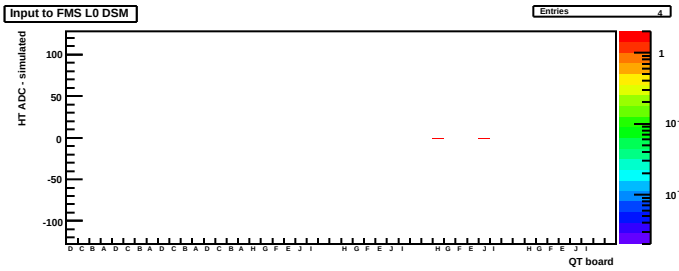

Input to FMS L0 DSM
Entries 2399952
QT8(2) sum
QT board

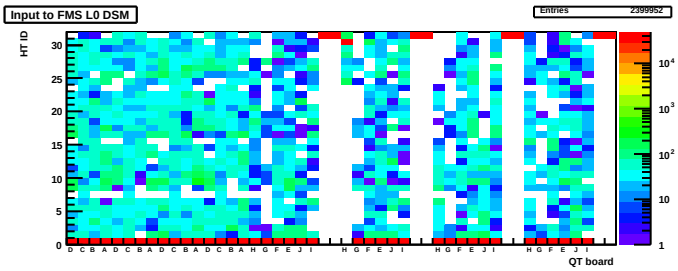

Input to FMS L0 DSM
Entries 35613
QT8(2) sum - simulated
QT board

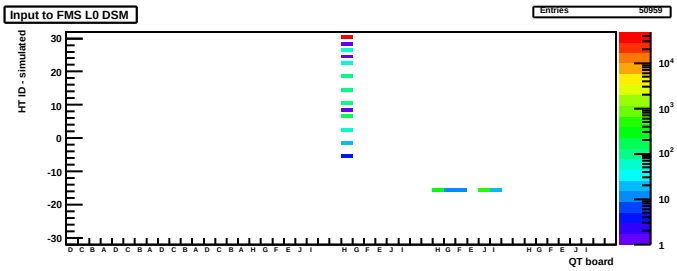

Input to FMS L0 DSM
Entries 2399952
QT8(3) sum
QT board

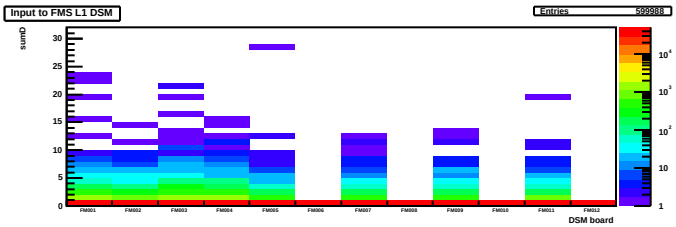

Input to FMS L0 DSM
Entries 46822
QT8(3) sum - simulated
QT board

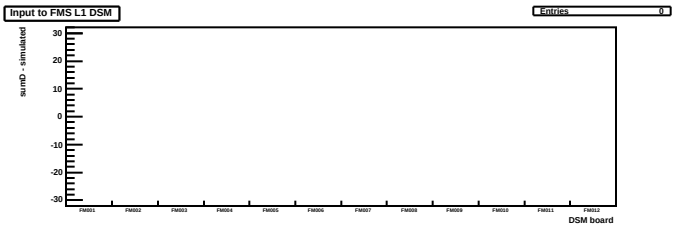

Input to FMS L0 DSM
Entries 2399952
HT ADC
QT board

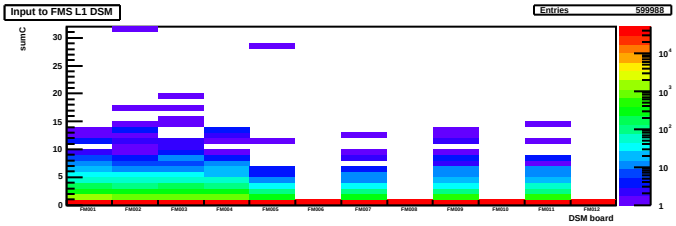

Input to FMS L0 DSM
Entries 4
HT ADC - simulated
QT board

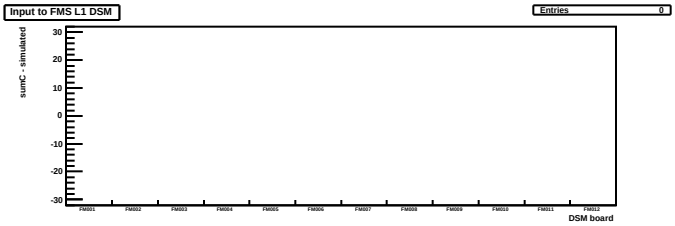

Input to FMS L0 DSM
Entries 2399952
HT ID
QT board

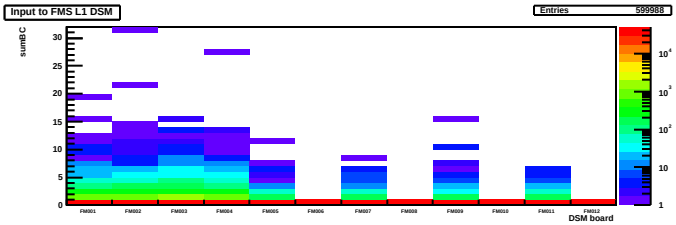

Input to FMS L0 DSM
Entries 50959
HT ID - simulated
QT board

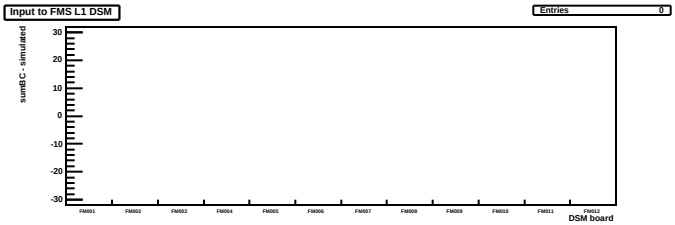

Input to FMS L1 DSM
Entries 599988
sumD
DSM board

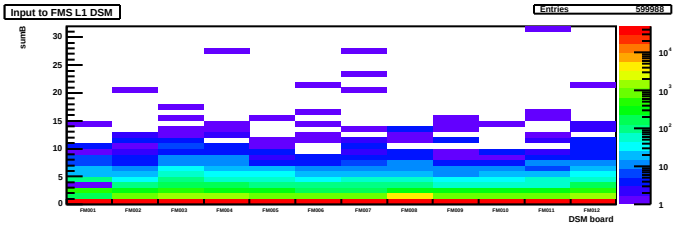

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

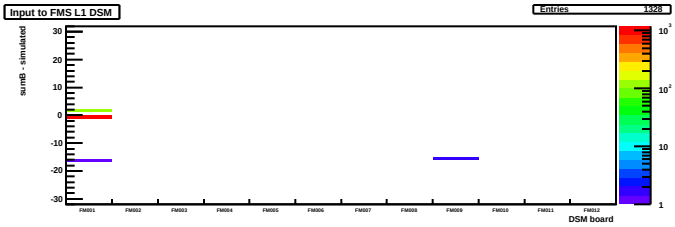

Input to FMS L1 DSM
Entries 599988
sumC
DSM board

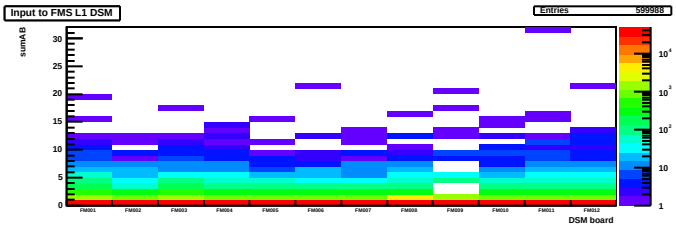

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

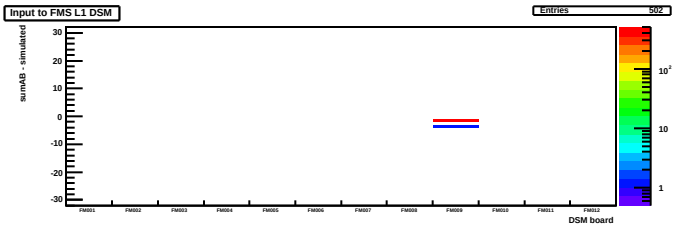

Input to FMS L1 DSM
Entries 599988
sumBC
DSM board

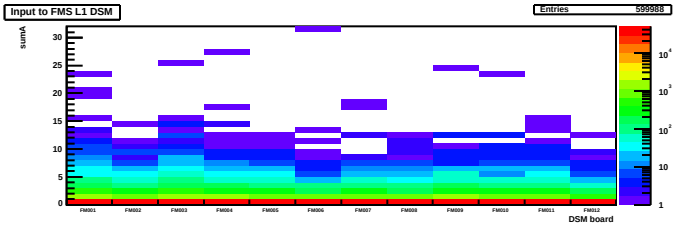

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

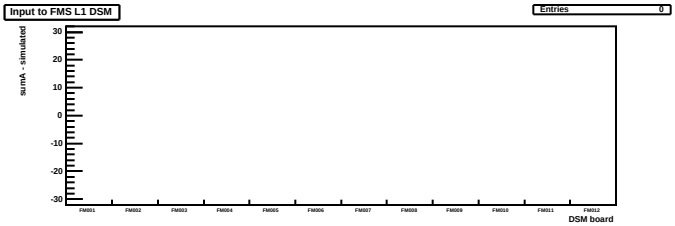

Input to FMS L1 DSM
Entries 599988
sumB
DSM board

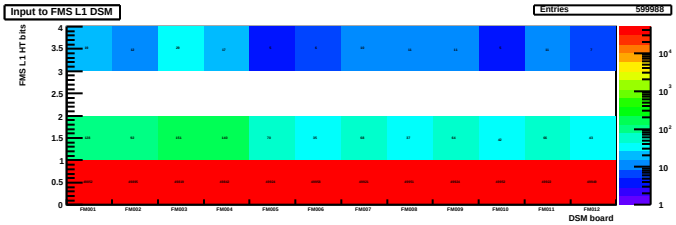

Input to FMS L1 DSM
Entries 1328
sumB - simulated
DSM board

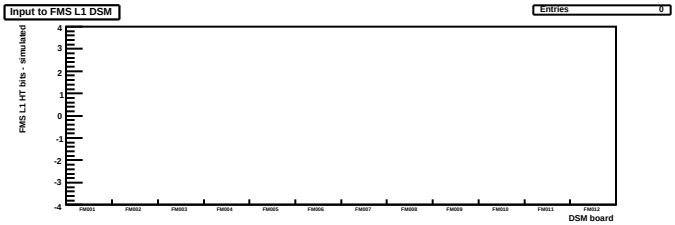

Input to FMS L1 DSM
Entries 599988
sumAB
DSM board

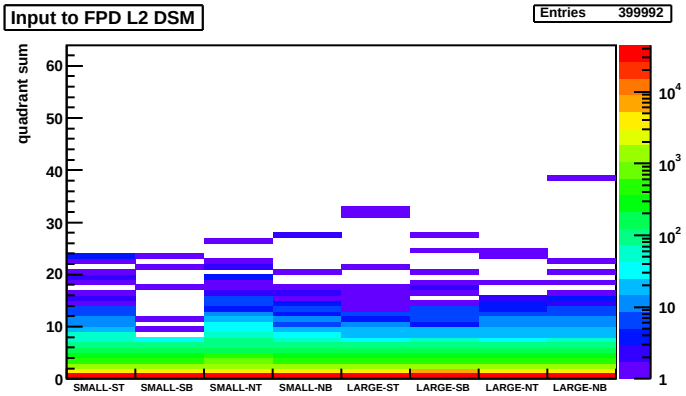

Input to FMS L1 DSM
Entries 502
sumAB - simulated
DSM board

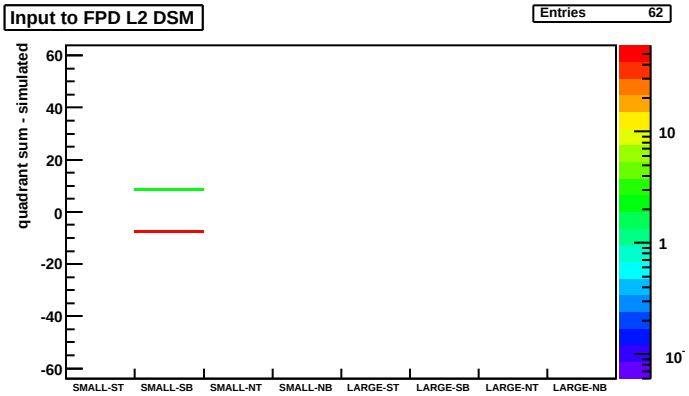

Input to FMS L1 DSM
Entries 599988
sumA
DSM board

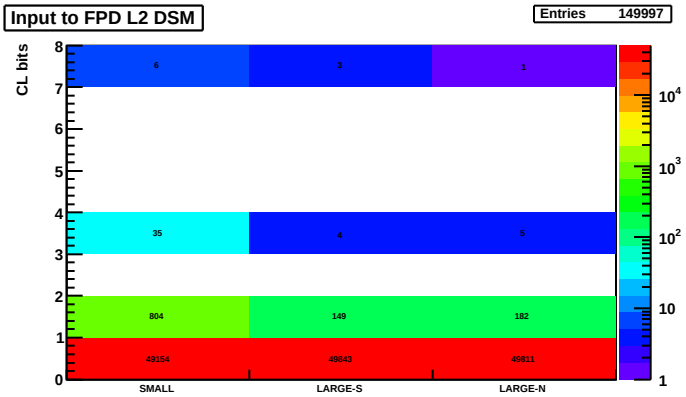

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

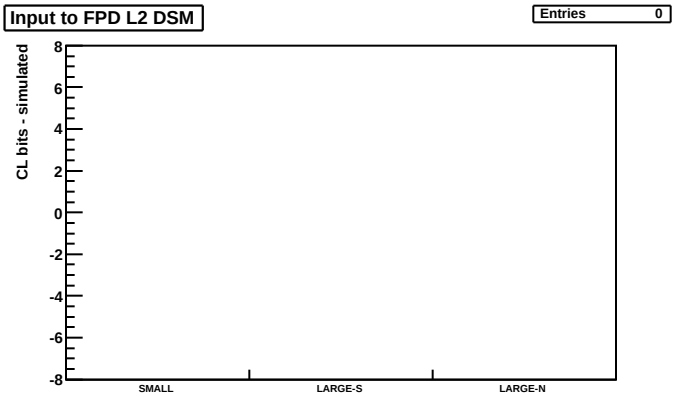

Input to FMS L1 DSM
Entries 599988
FMS L1 HT bits
DSM board

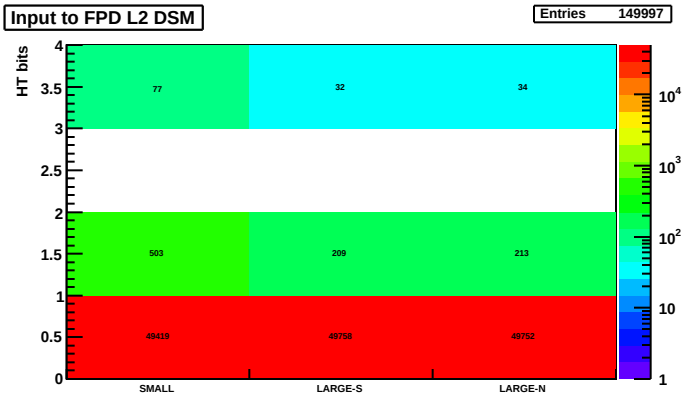

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

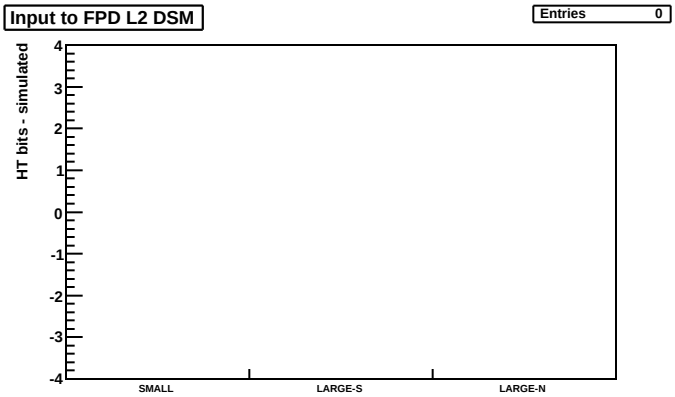

Input to FPD L2 DSM
Entries 399992
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

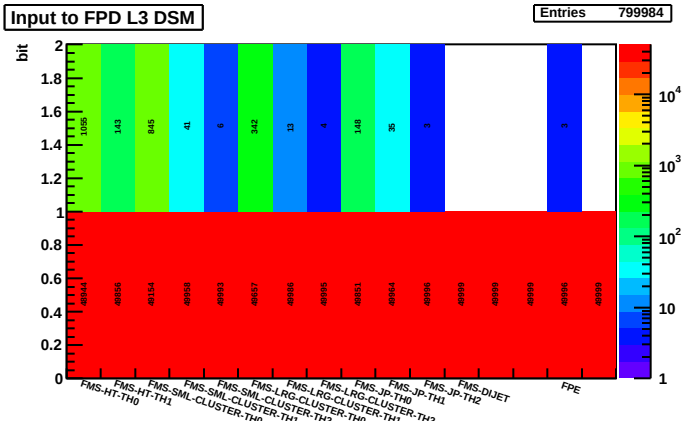

Input to FPD L2 DSM
Entries 62
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

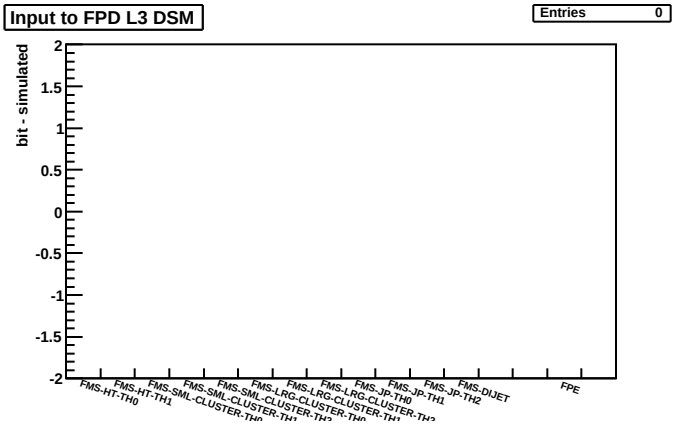

Input to FPD L2 DSM
Entries 149997
CL bits
SMALL
LARGE-S
LARGE-N

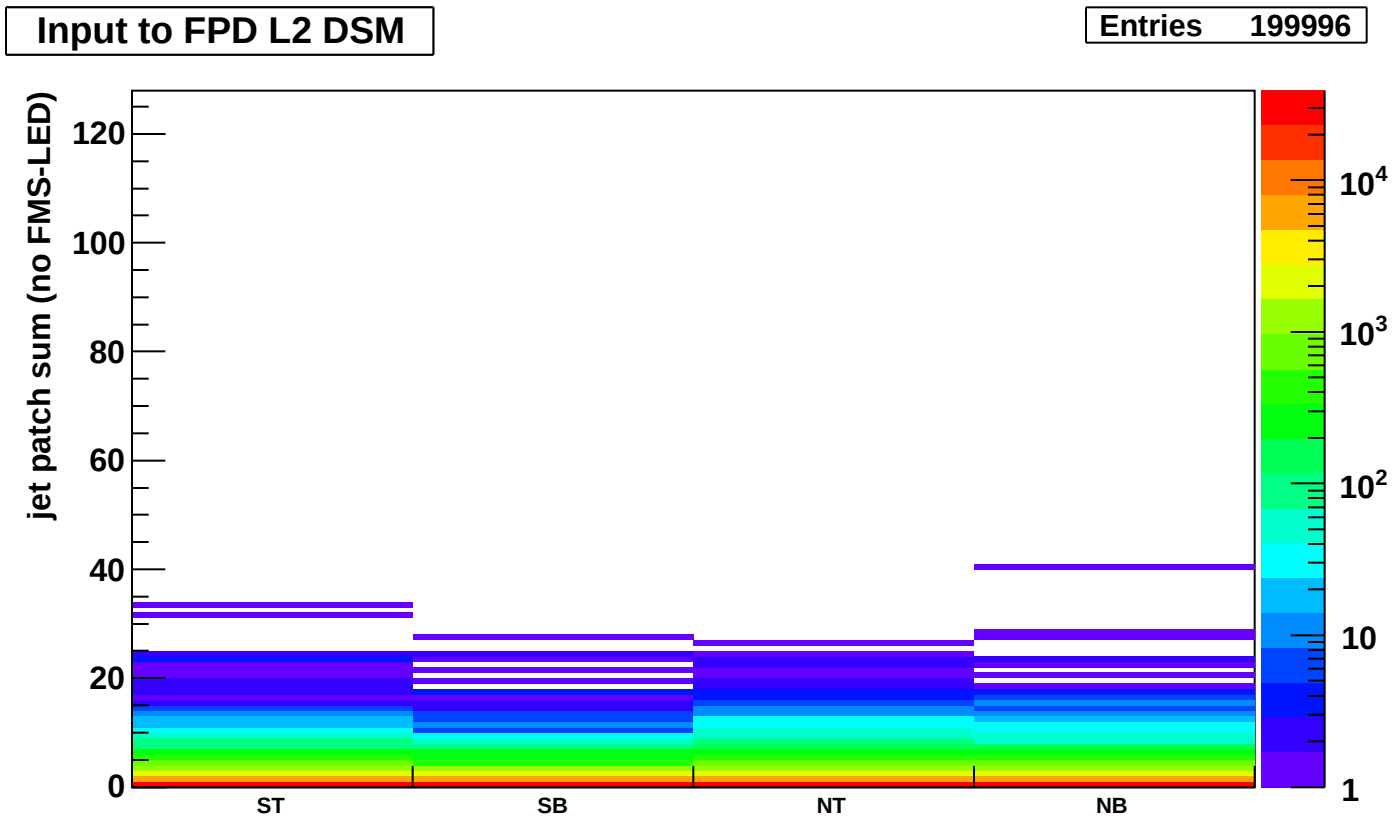

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

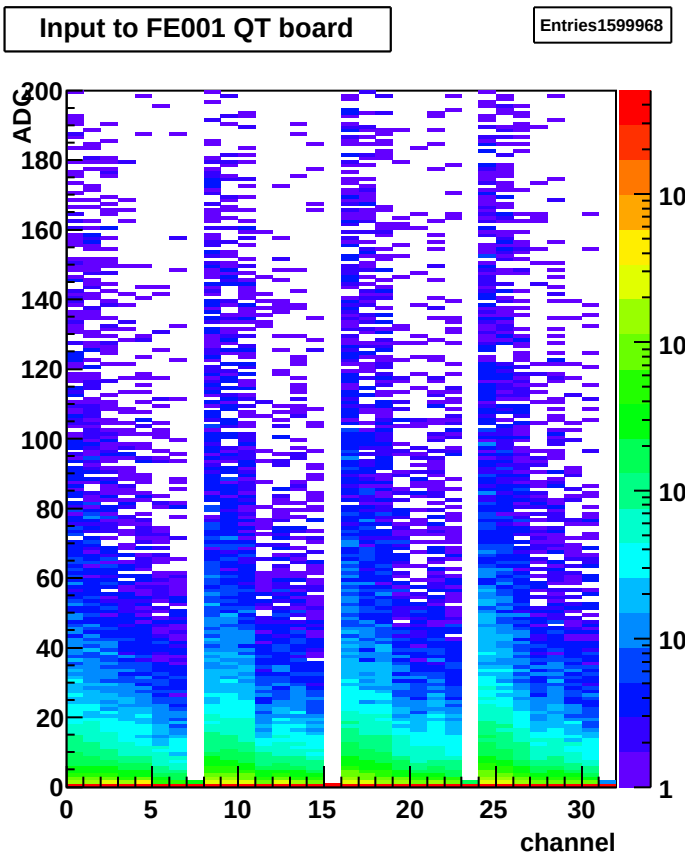

Input to FPD L2 DSM
Entries 149997
HT bits
SMALL
LARGE-S
LARGE-N

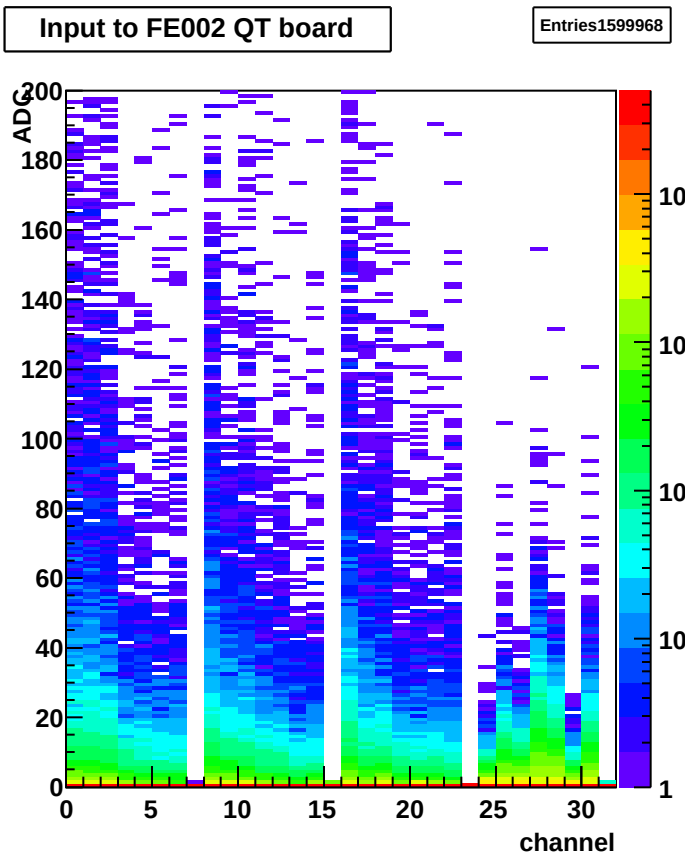

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

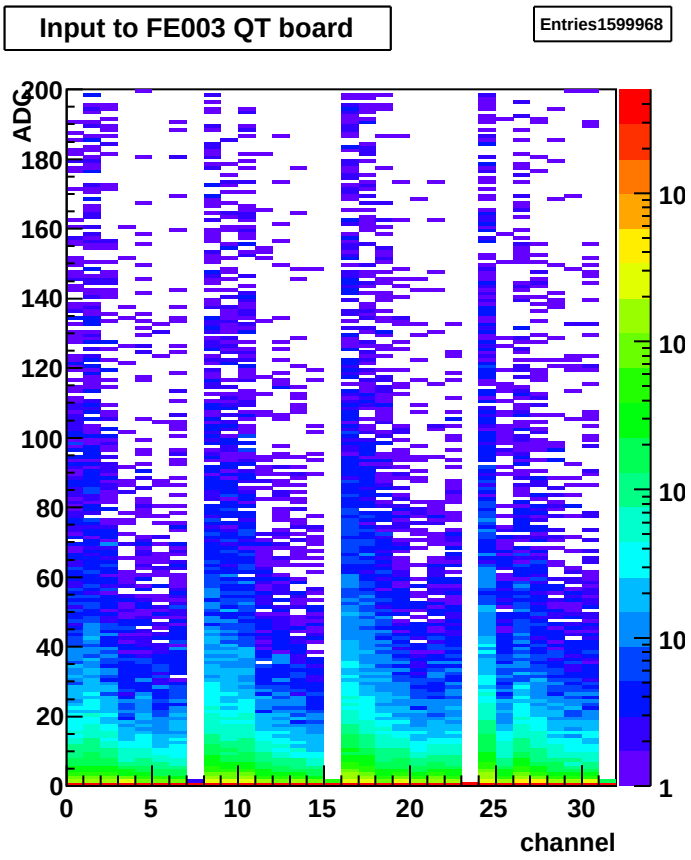

Input to FPD L3 DSM
Entries 799984
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

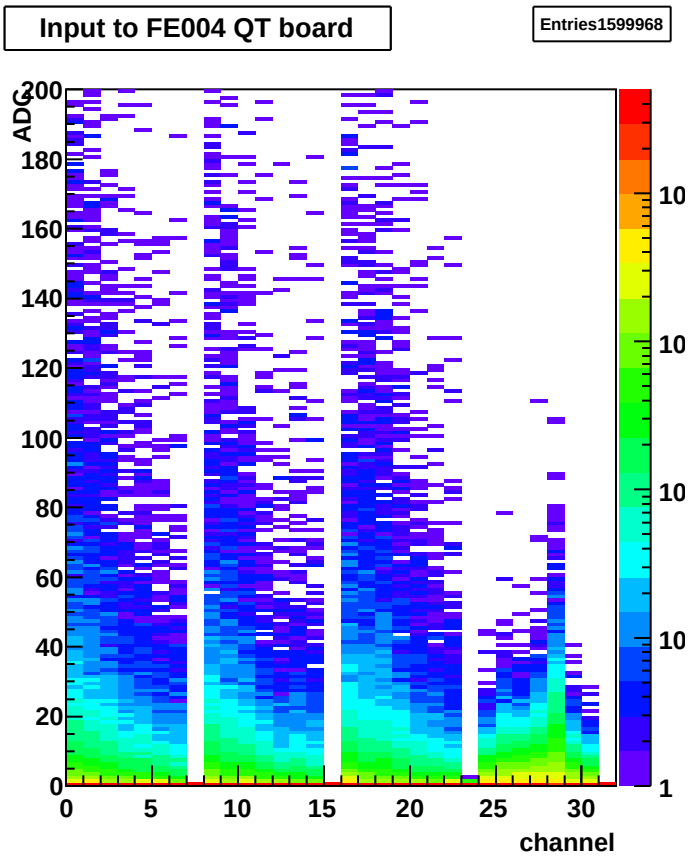

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

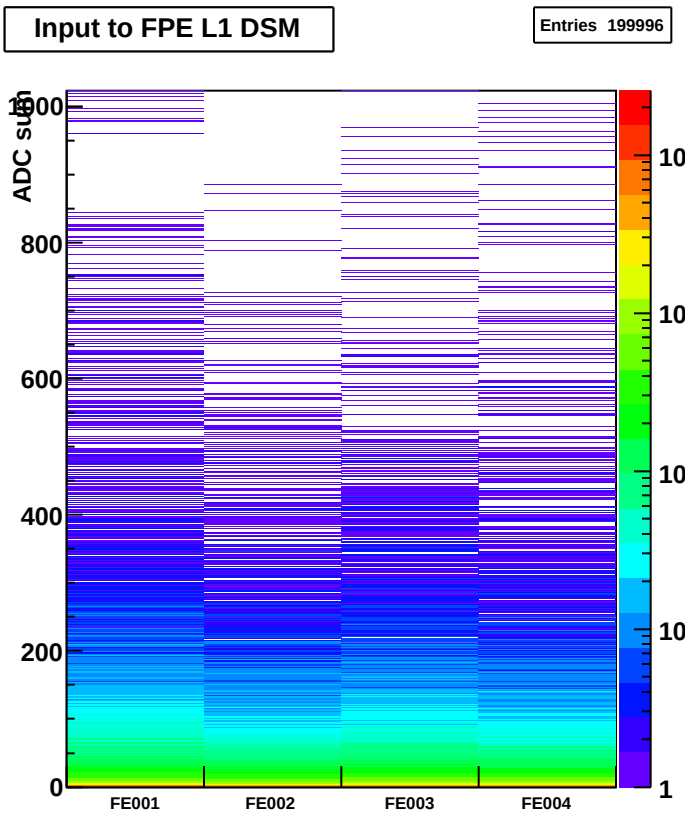

Input to FPD L2 DSM
Entries 199996
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
$10^2$
$10^3$
$10^4$

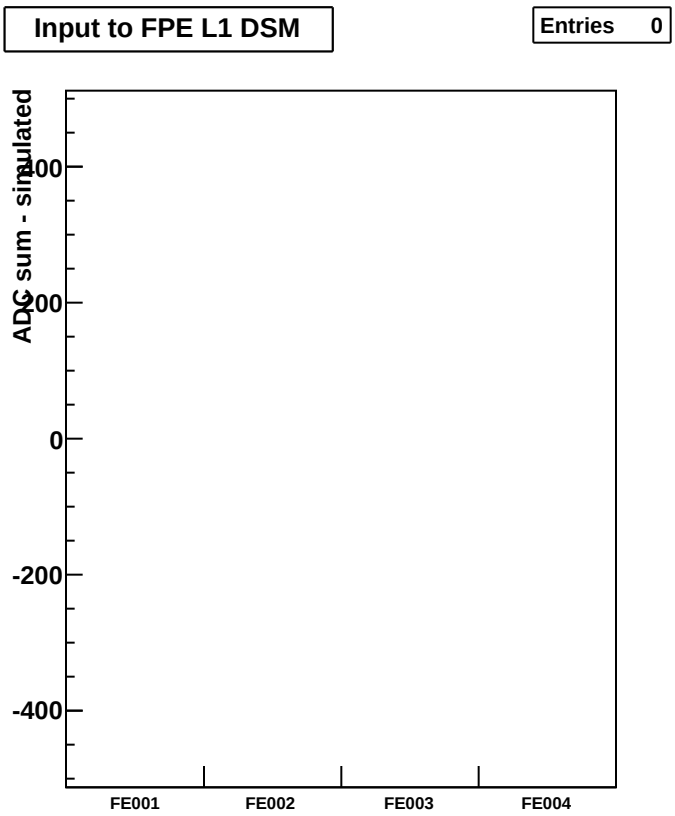

Input to FE001 QT board
Entries1599968
ADC
channel

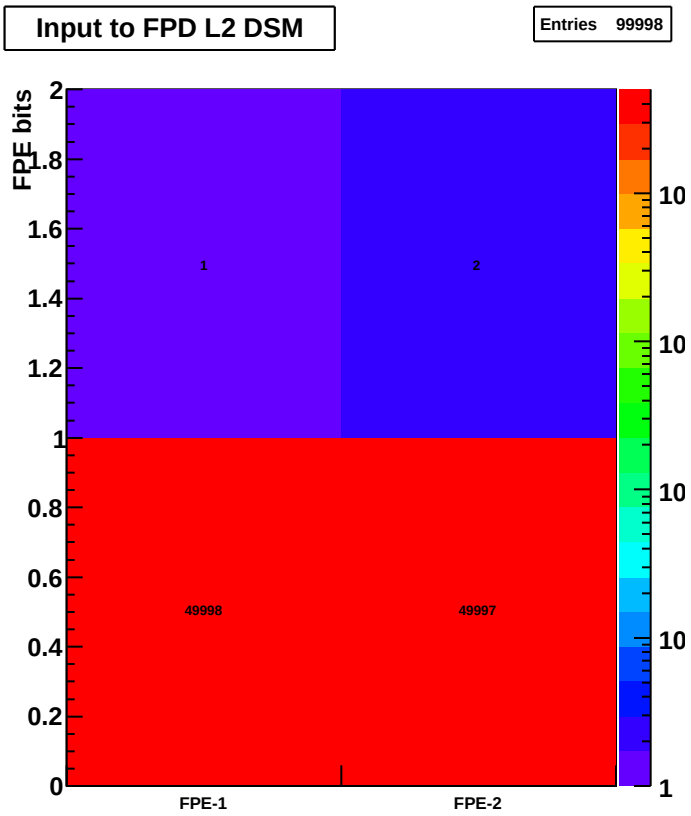

Input to FE002 QT board
Entries1599968
ADC
channel

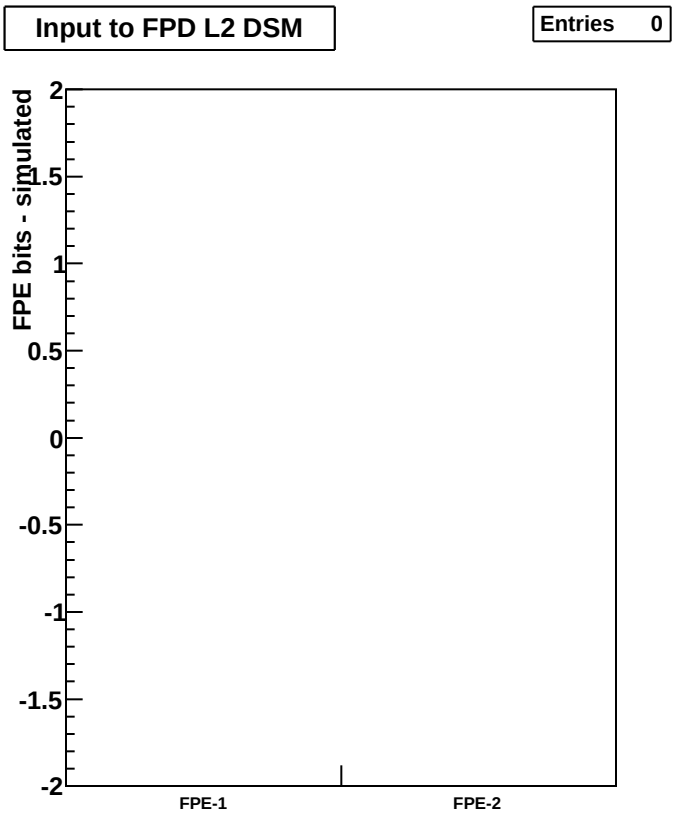

Input to FE003 QT board
Entries1599968
ADC
channel


Input to FE004 QT board
Entries1599968
ADC
channel


Input to FPE L1 DSM
Entries 199996
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
1


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


Input to FPD L2 DSM
Entries 99998
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1
2
49998
49997
FPE-1
FPE-2
10
10
10
10
1


Input to FPD L2 DSM
Entries 0
FPE bits - simulated
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
FPE-1
FPE-2