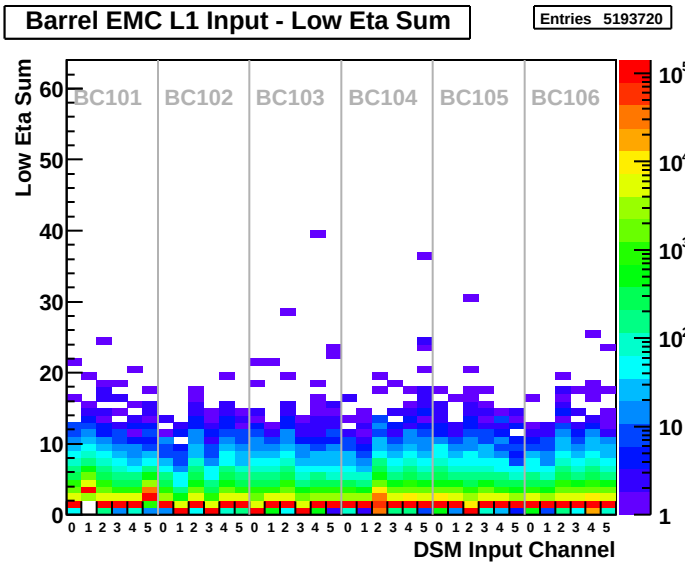
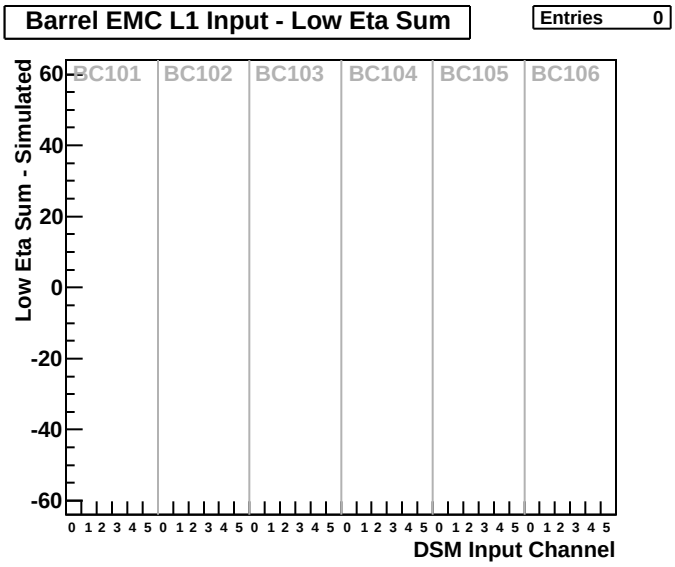
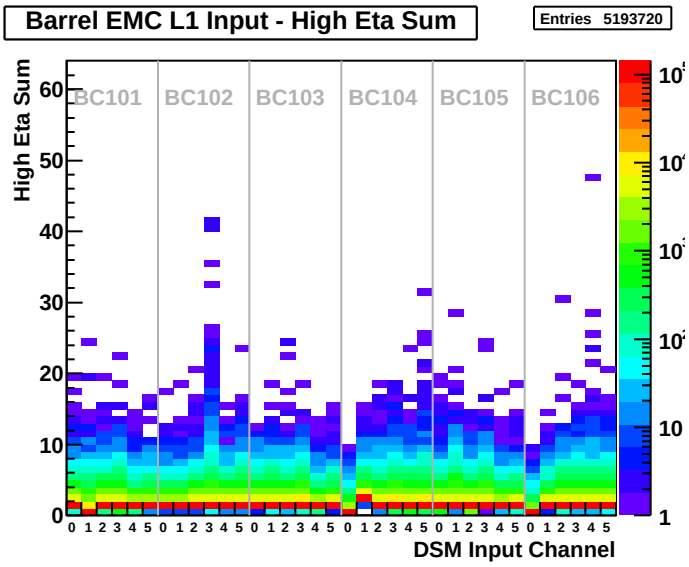
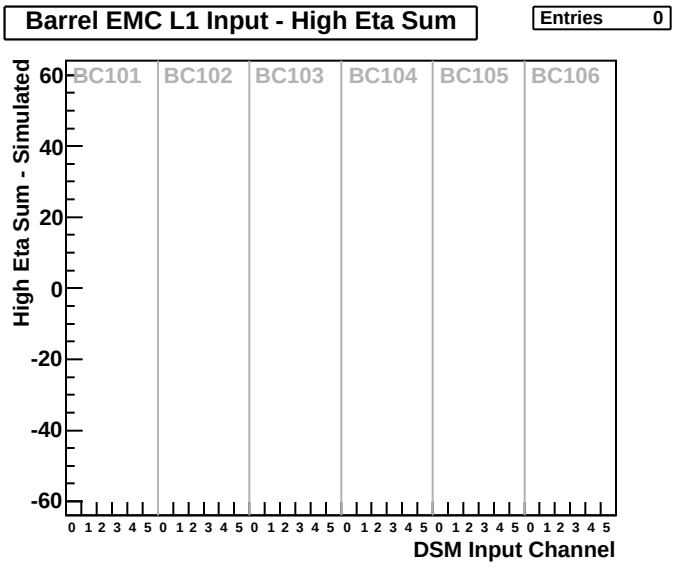
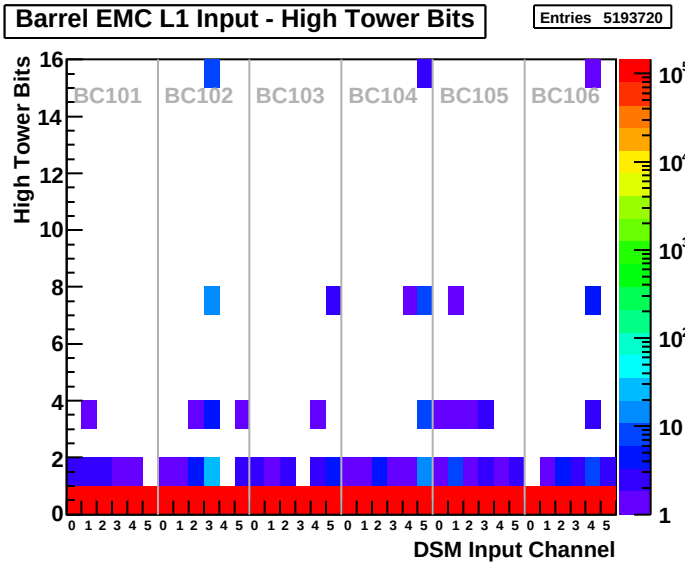
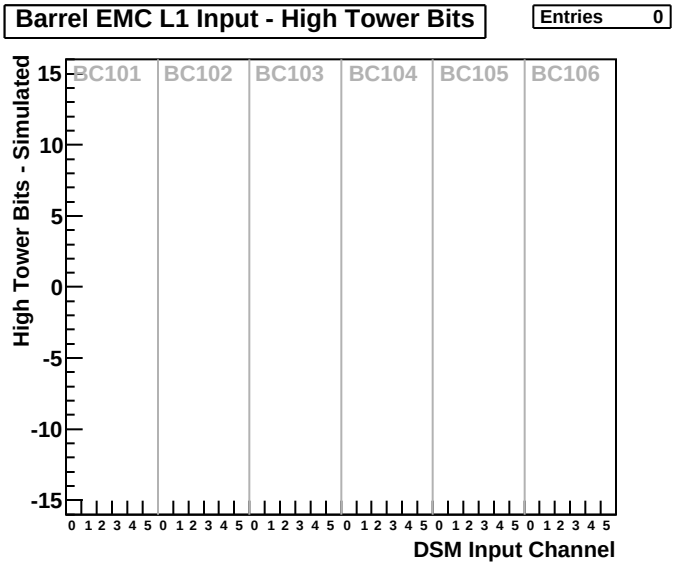

Barrel EMC L1 Input - Low Eta Sum
Entries 5193720
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

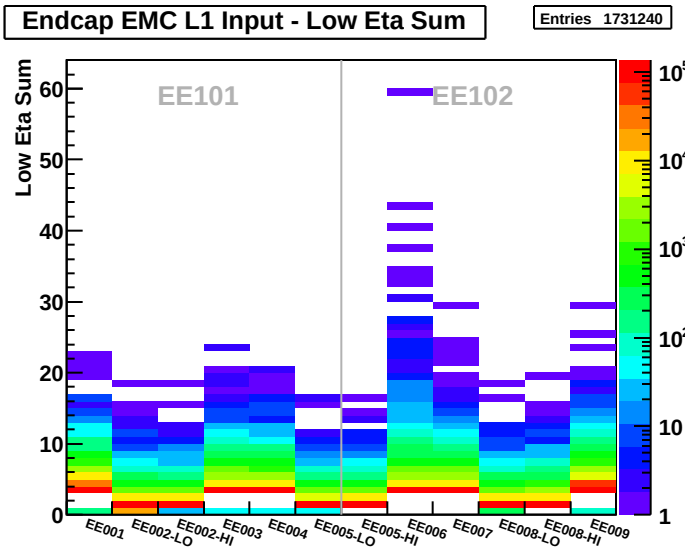

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

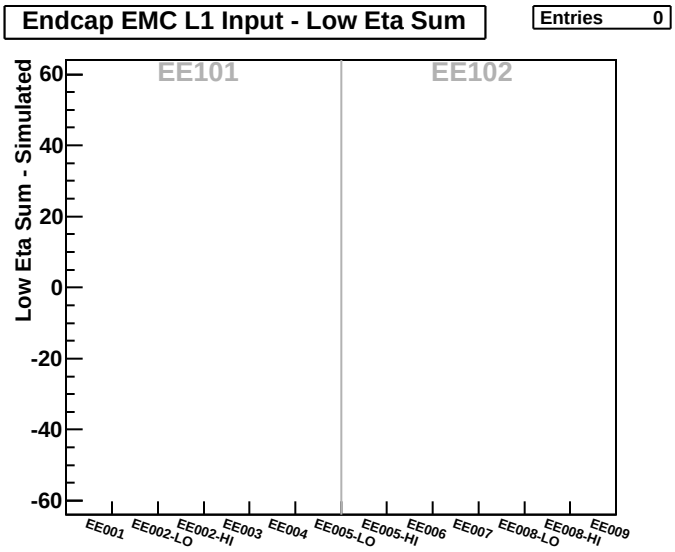

Barrel EMC L1 Input - High Eta Sum
Entries 5193720
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

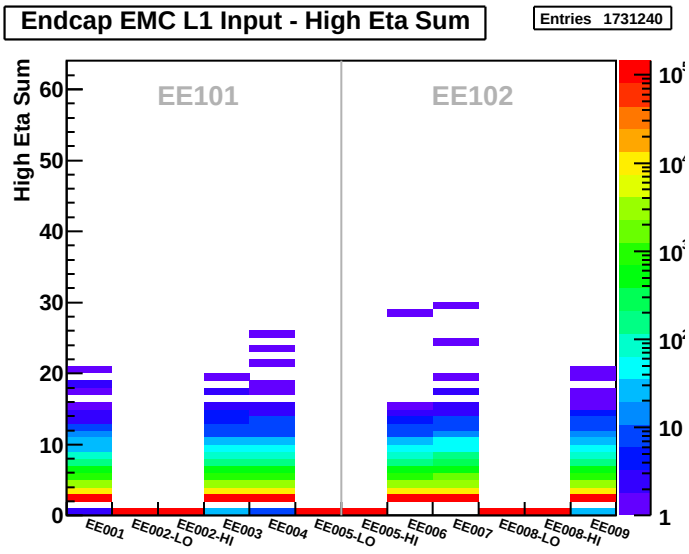

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

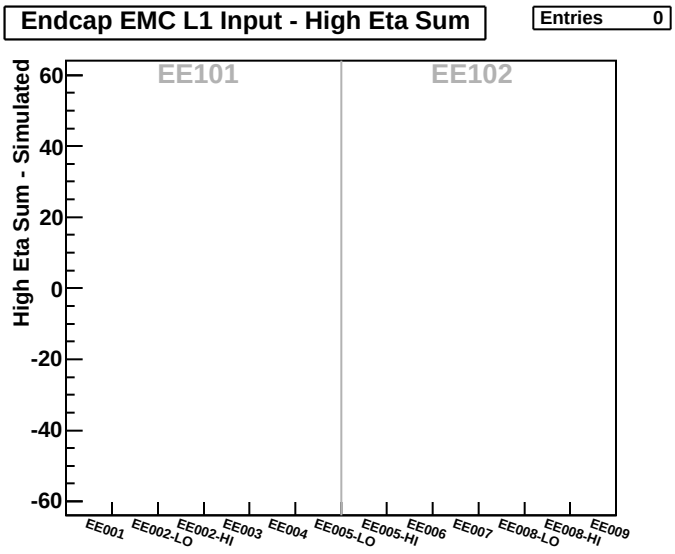

Barrel EMC L1 Input - High Tower Bits
Entries 5193720
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

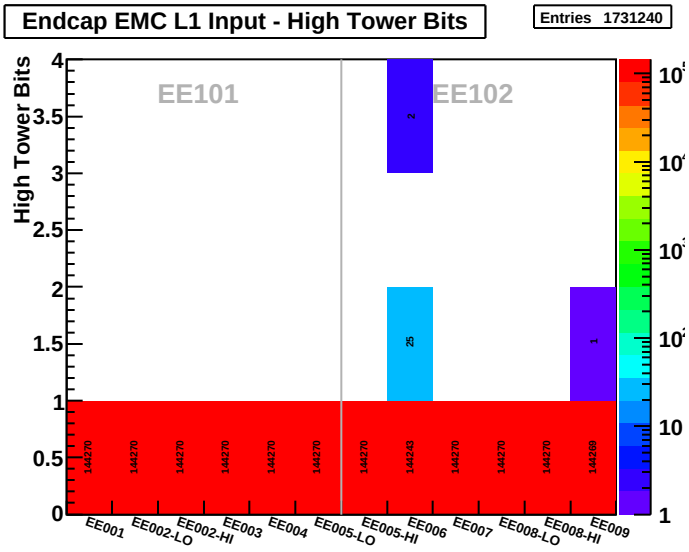

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

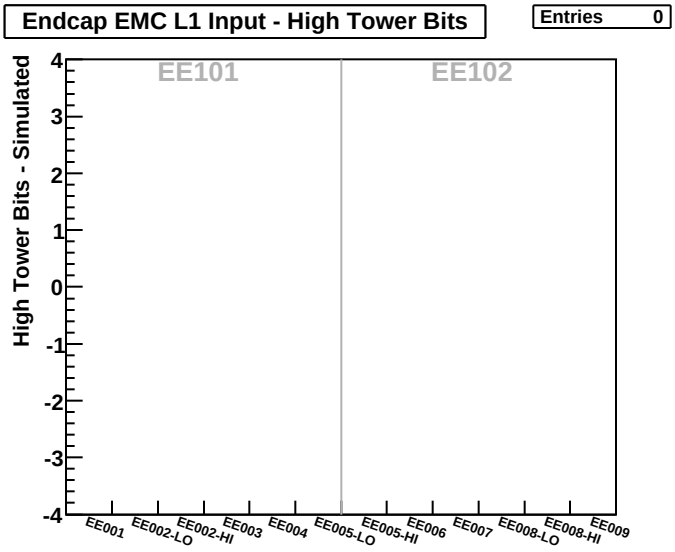

Endcap EMC L1 Input - Low Eta Sum
Entries 1731240
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

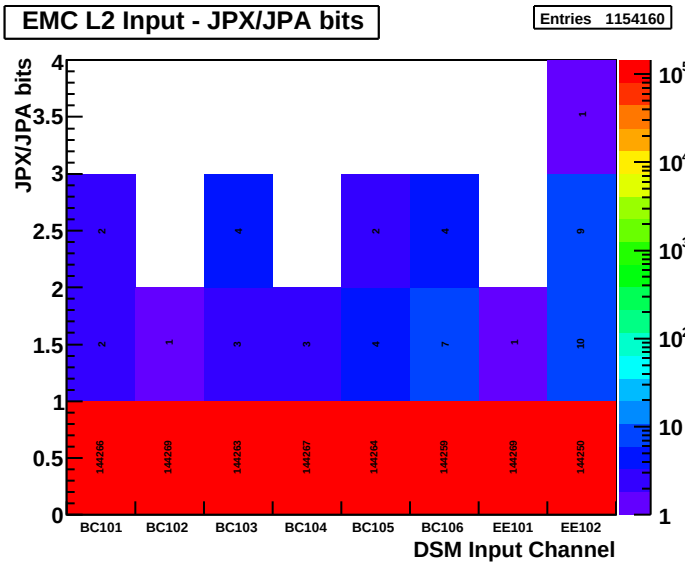

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

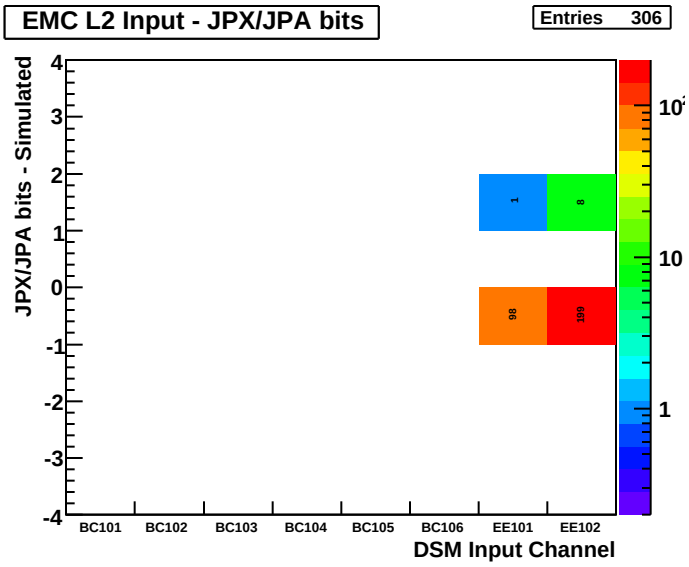

Endcap EMC L1 Input - High Eta Sum
Entries 1731240
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

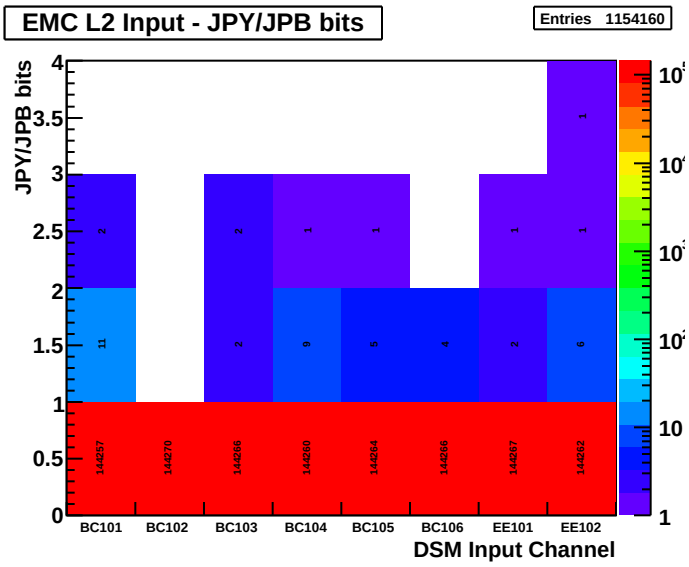

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

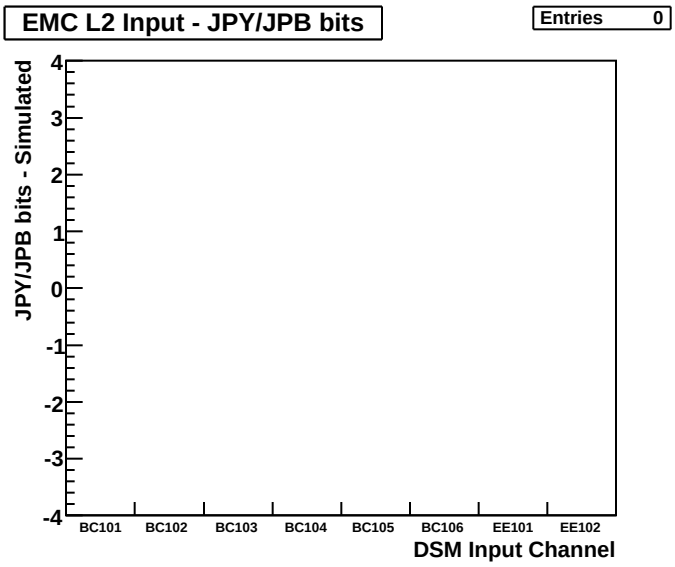

Endcap EMC L1 Input - High Tower Bits
Entries 1731240
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

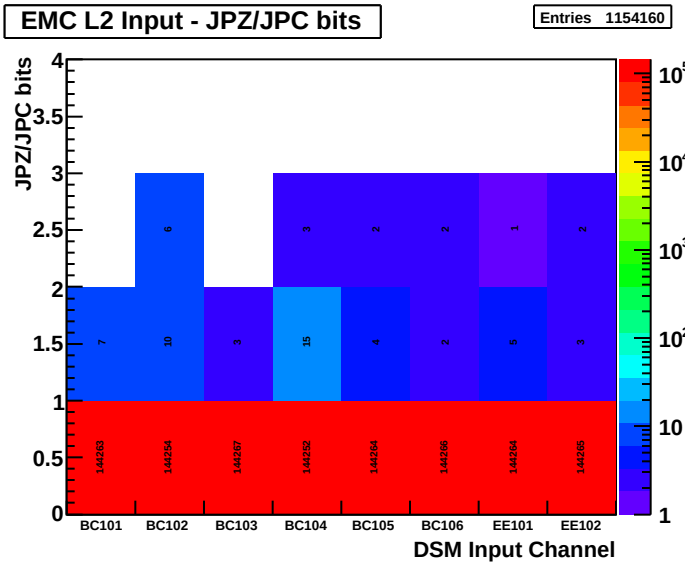

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

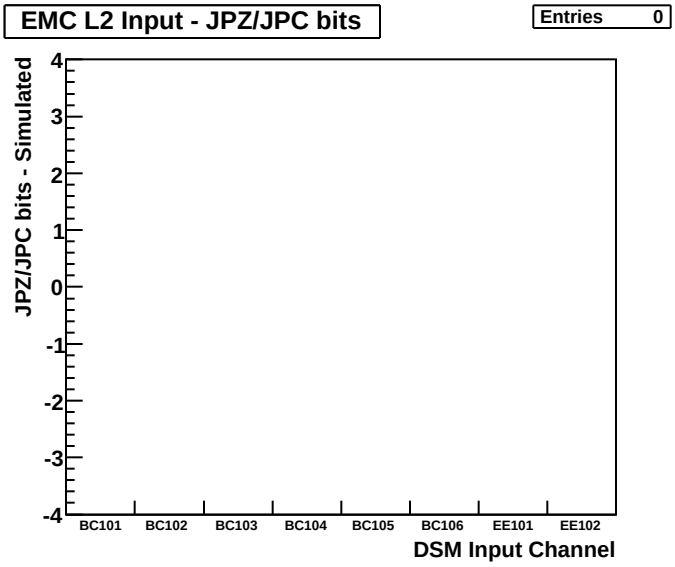

EMC L2 Input - JPX/JPA bits
Entries 1154160
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

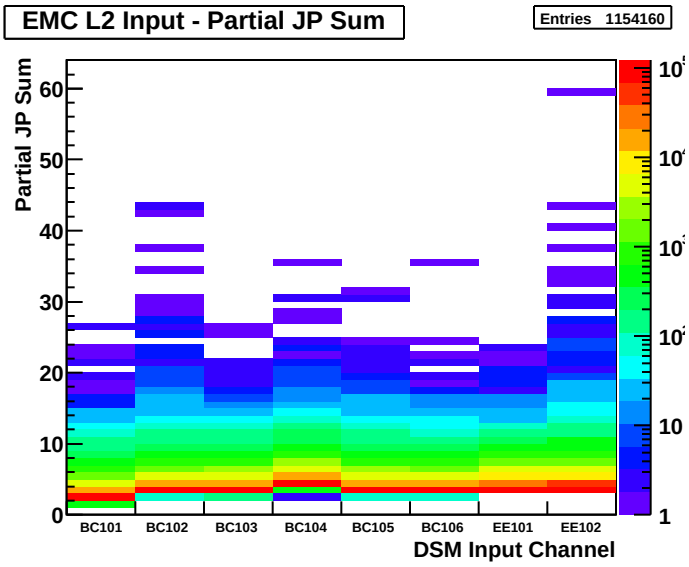

EMC L2 Input - JPX/JPA bits
Entries 306
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

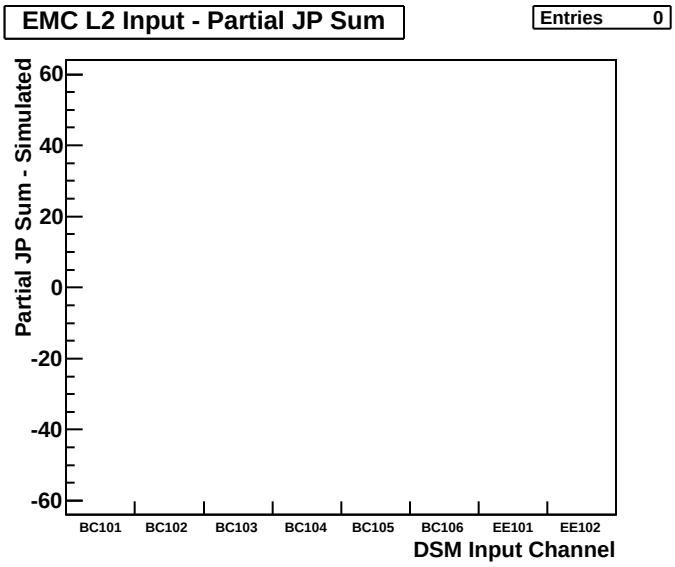

EMC L2 Input - JPY/JPB bits
Entries 1154160
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

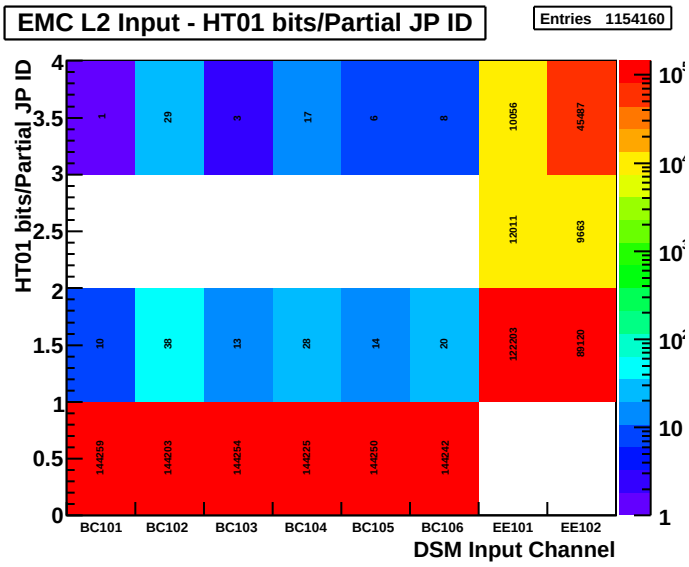

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

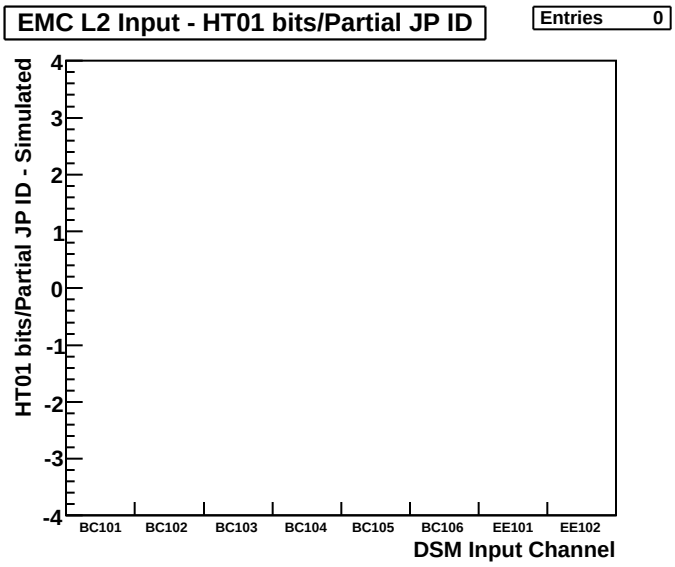

EMC L2 Input - JPZ/JPC bits
Entries 1154160
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

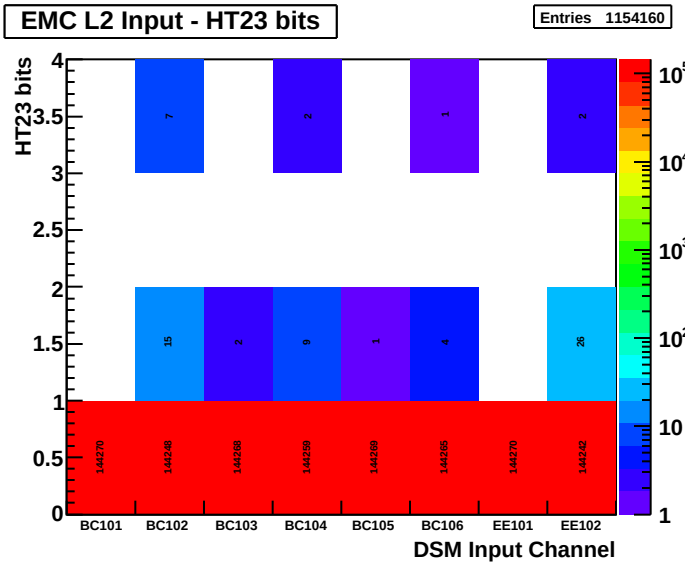

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

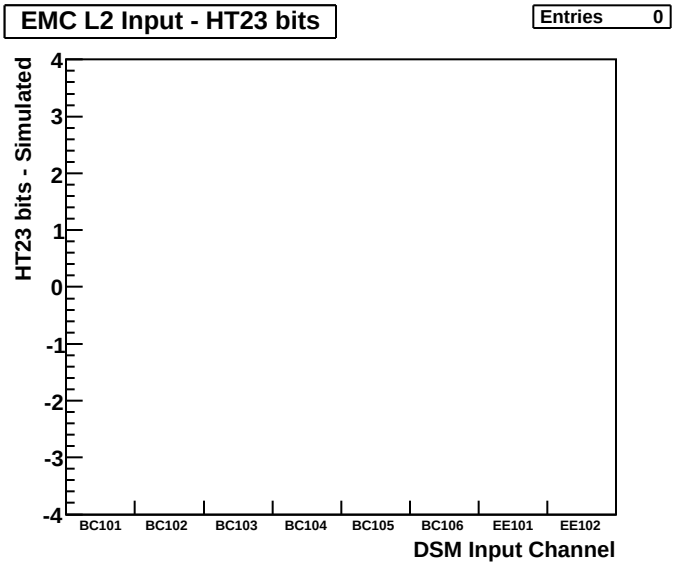

EMC L2 Input - Partial JP Sum
Entries 1154160
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

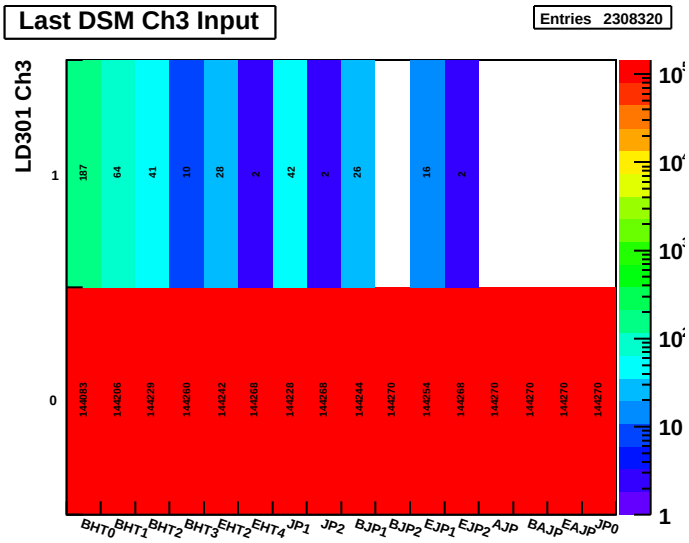

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

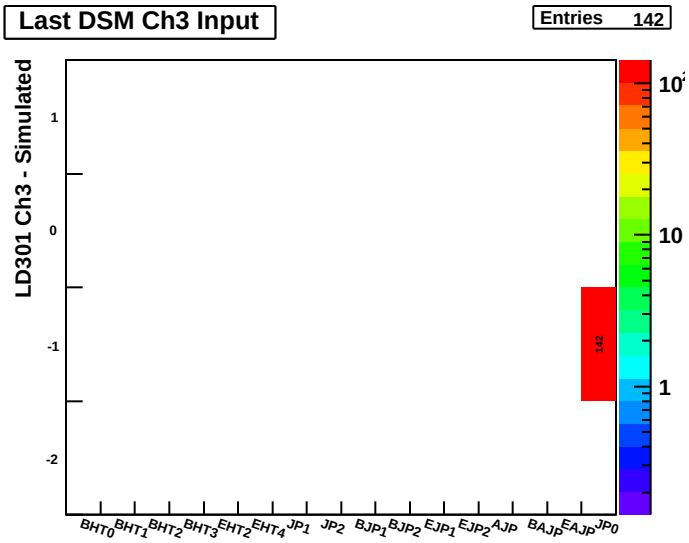

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1154160
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

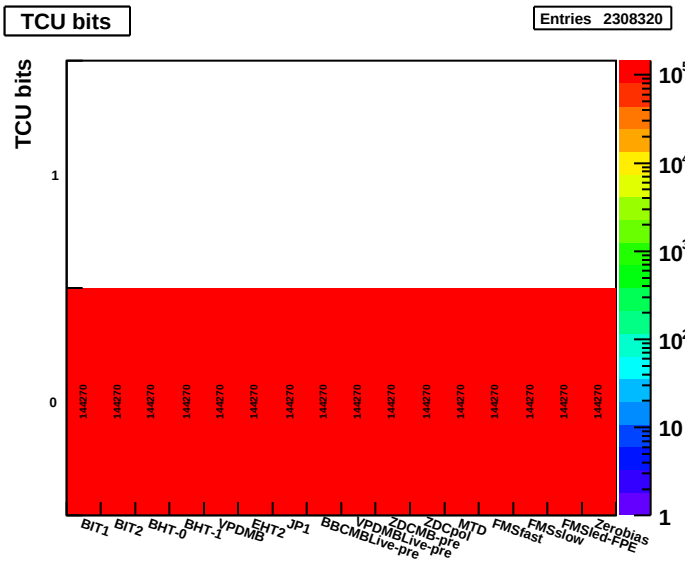

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

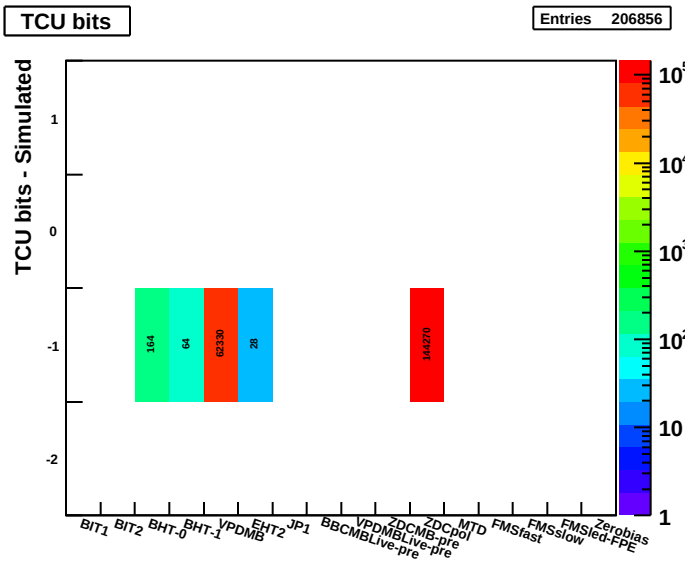

EMC L2 Input - HT23 bits
Entries 1154160
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

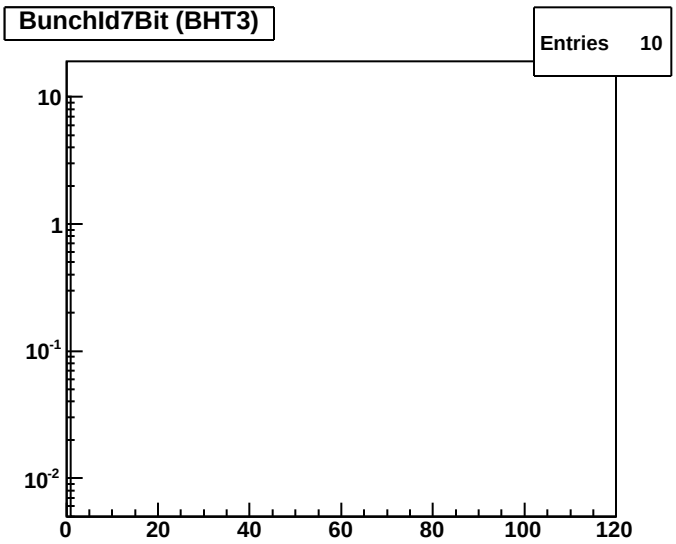

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

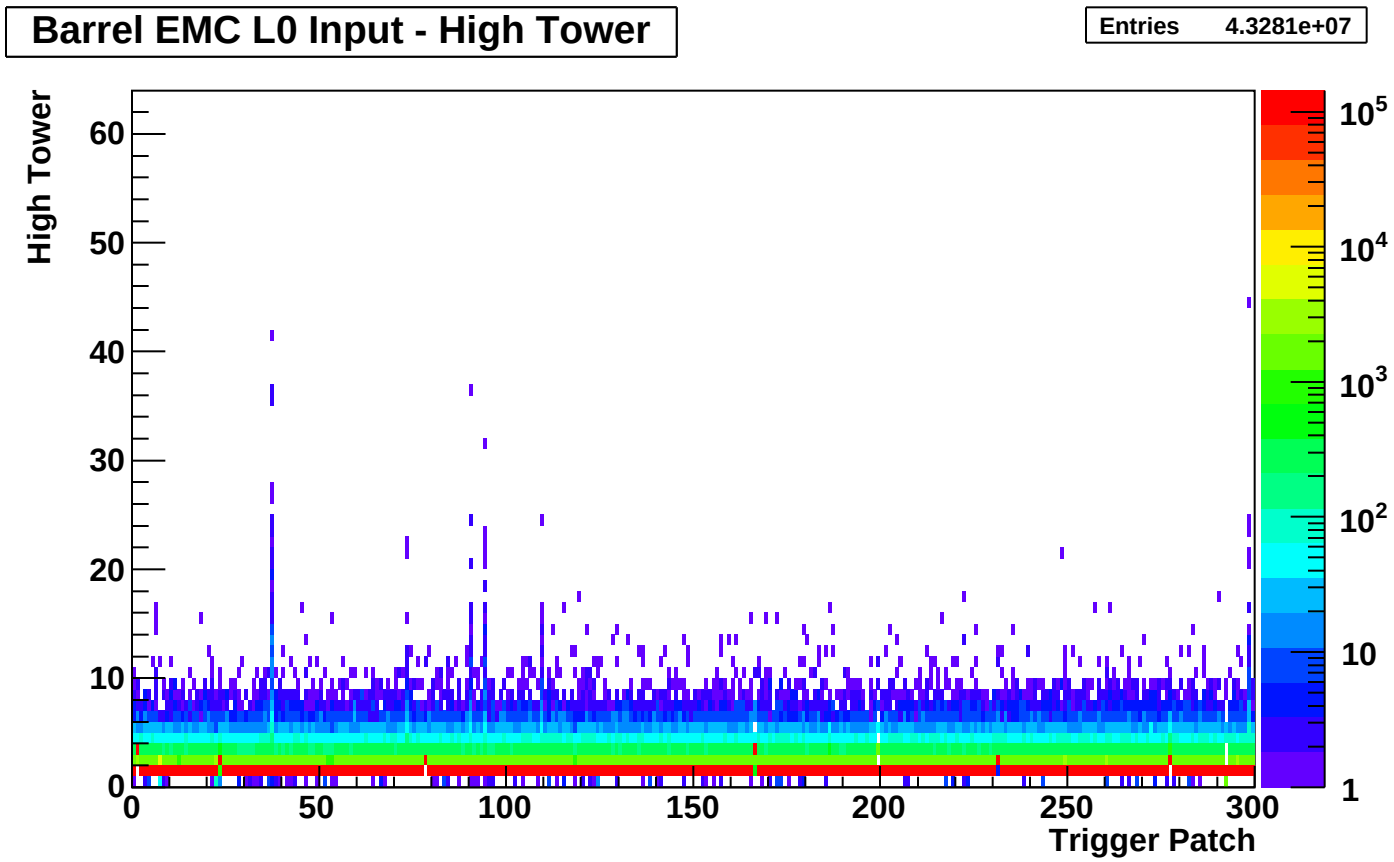

Last DSM Ch3 Input
Entries 2308320
LD301 Ch3
1
0
187 64 41 10 28 2 42 2 26 16 2
144083 144206 144229 144260 144242 144268 144228 144268 144244 144270 144254 144268 144270 144270 144270 144270
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0
1

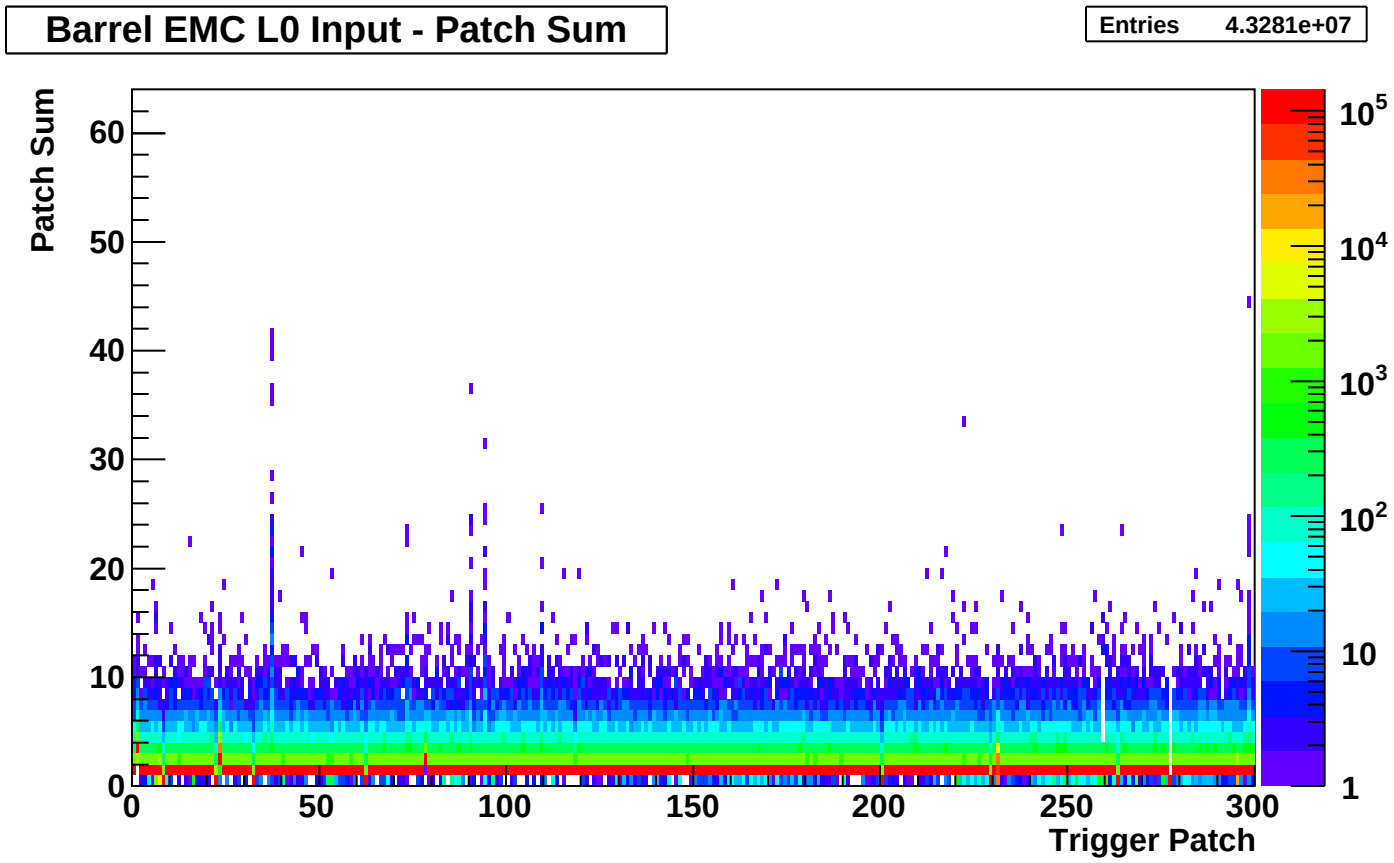

Last DSM Ch3 Input
Entries 142
LD301 Ch3 - Simulated
1
0
-1
-2
142
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0
10
1

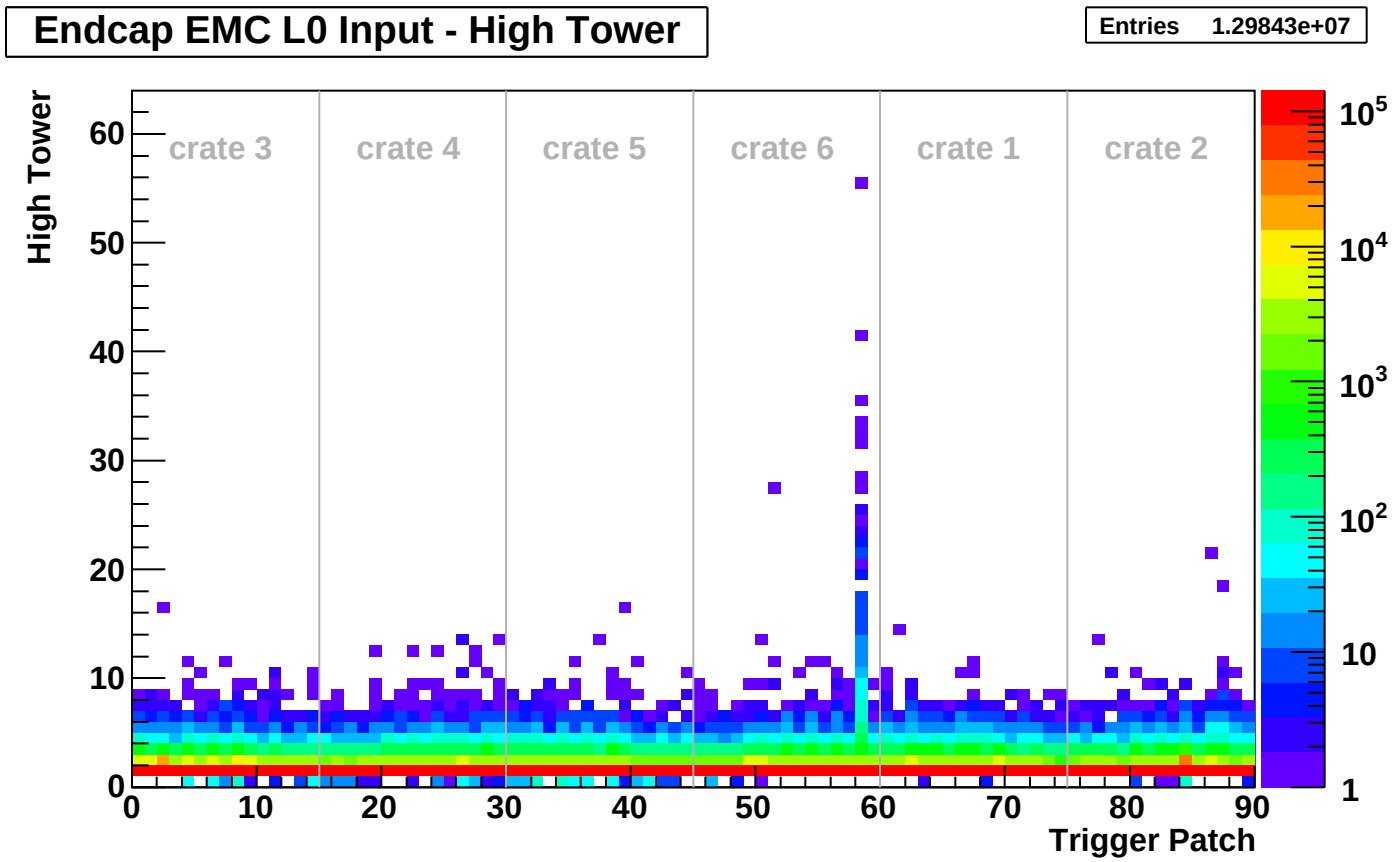

TCU bits
Entries 2308320
TCU bits
1
0
144270 144270 144270 144270 144270 144270 144270 144270 144270 144270 144270 144270 144270 144270 144270 144270
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias
10
1

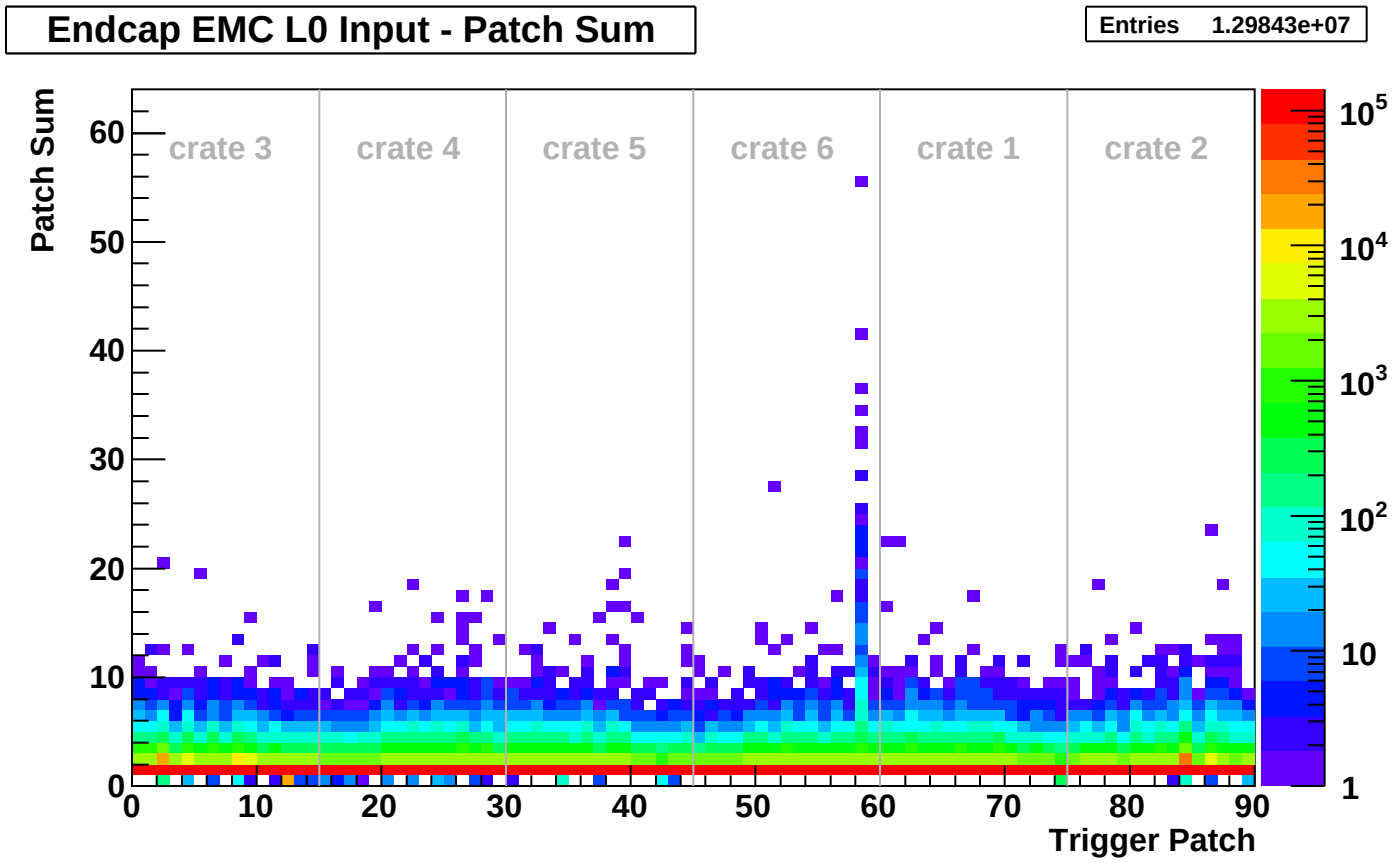

TCU bits
Entries 206856
TCU bits - Simulated
1
0
-1
-2
164 64 62330 28 144270
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias
10
1

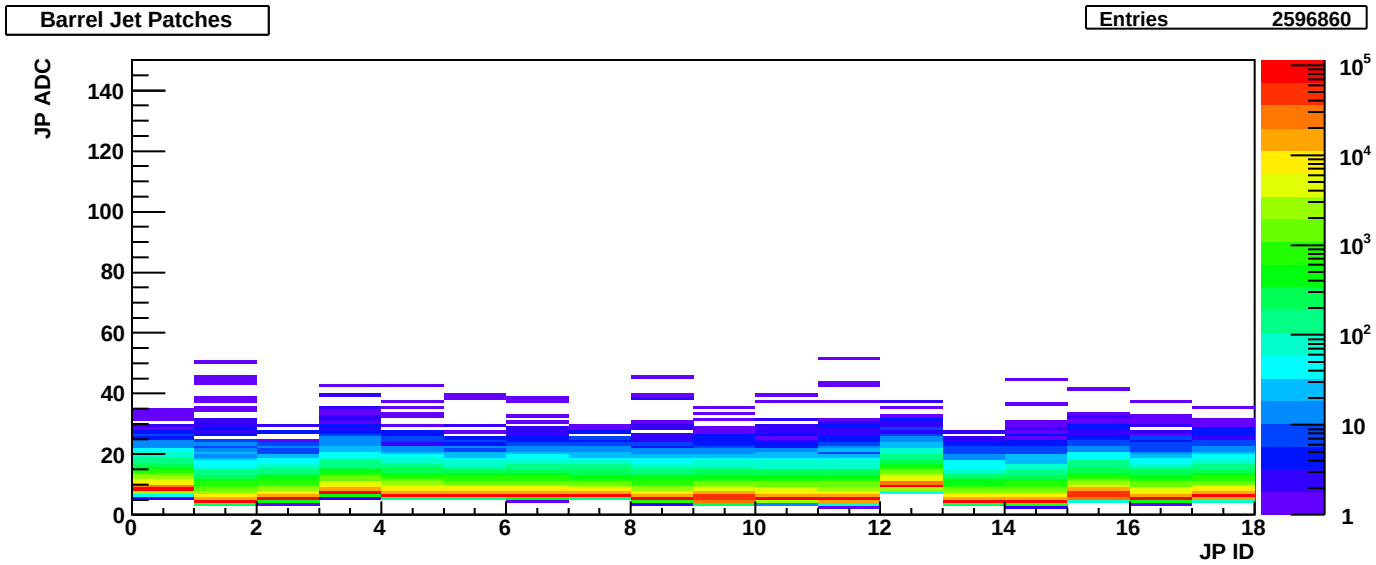

BunchId7Bit (BHT3)
Entries 10
10
1
10^-1
10^-2
0 20 40 60 80 100 120

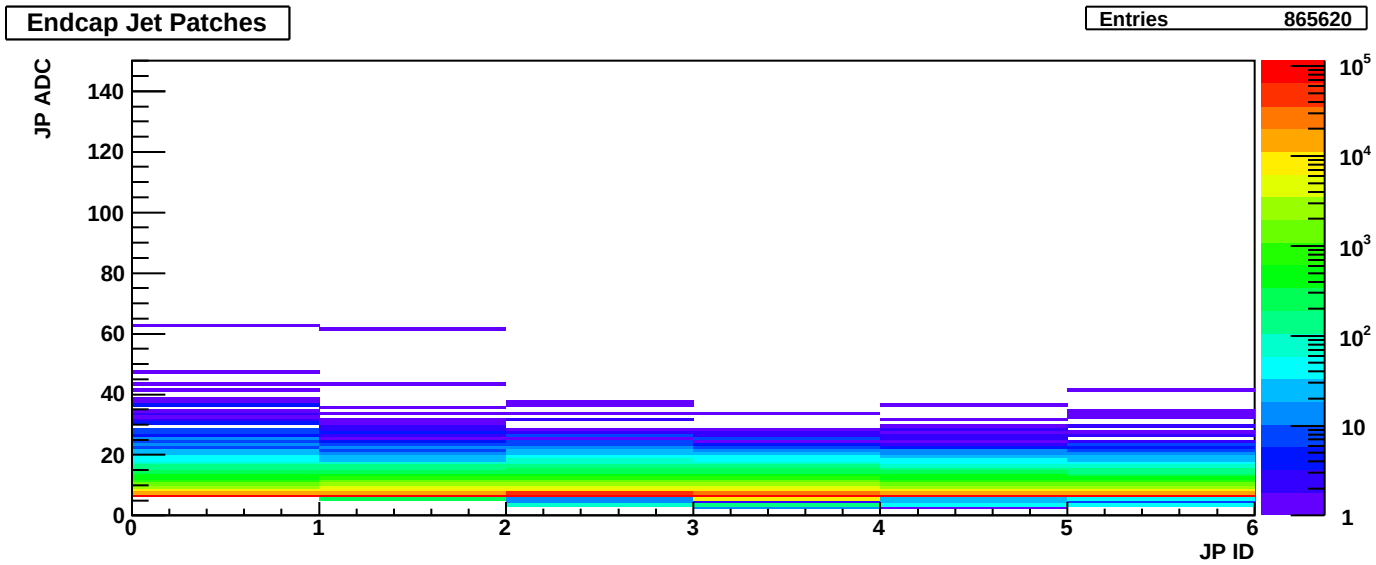

Barrel EMC L0 Input - High Tower
Entries 4.3281e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

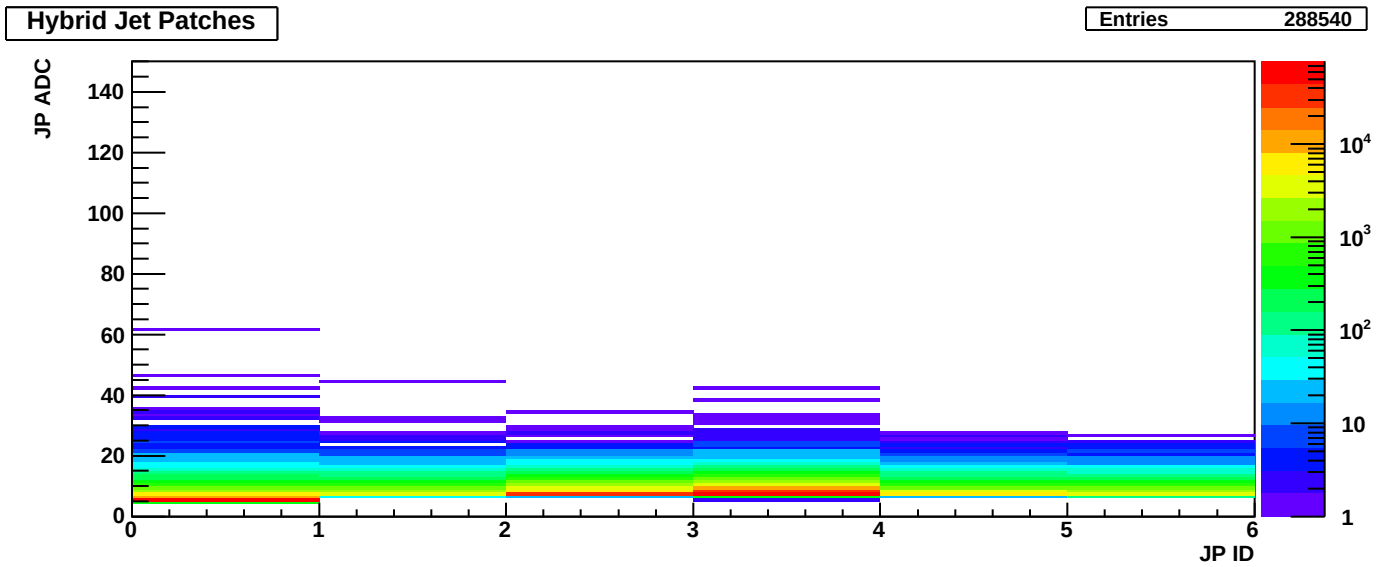

Barrel EMC L0 Input - Patch Sum
Entries 4.3281e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

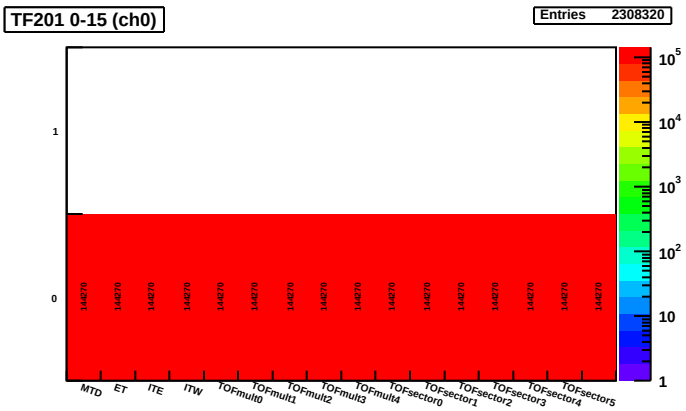

Endcap EMC L0 Input - High Tower
Entries 1.29843e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

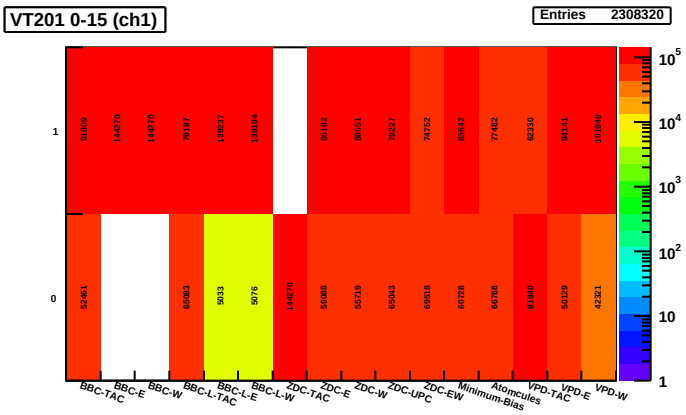

Endcap EMC L0 Input - Patch Sum
Entries 1.29843e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

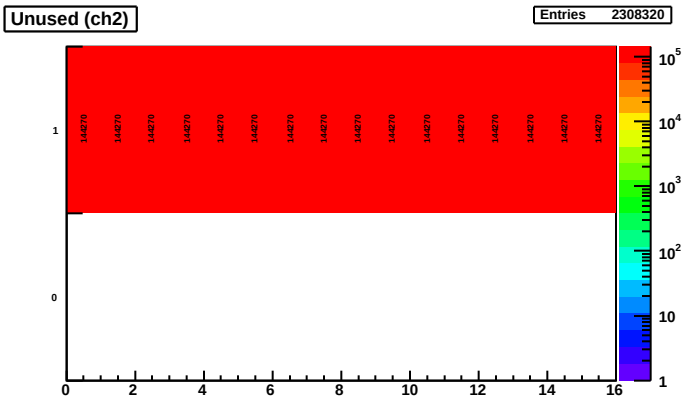

Barrel Jet Patches
Entries 2596860
JP ADC
JP ID

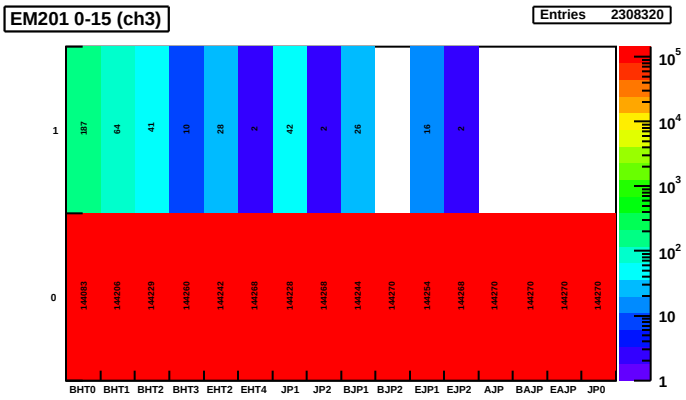

Endcap Jet Patches
Entries 865620
JP ADC
JP ID

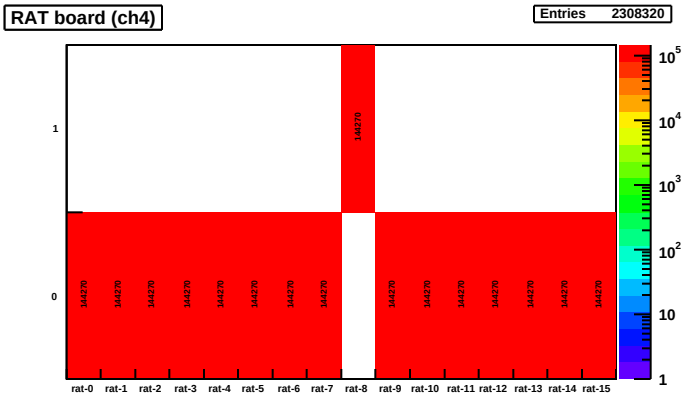

Hybrid Jet Patches
Entries 288540
JP ADC
JP ID

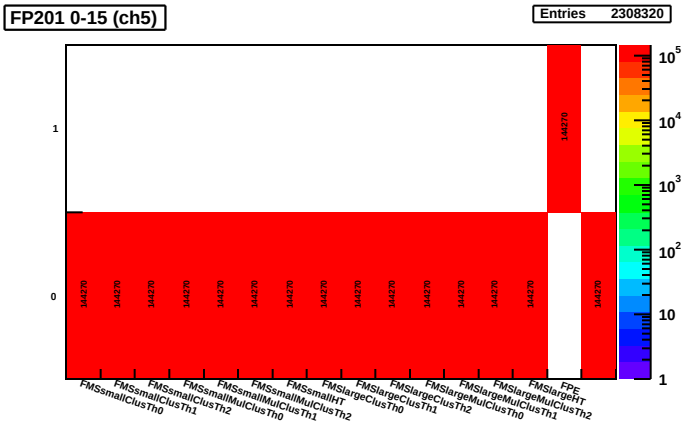

TF201 0-15 (ch0)
Entries 2308320
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

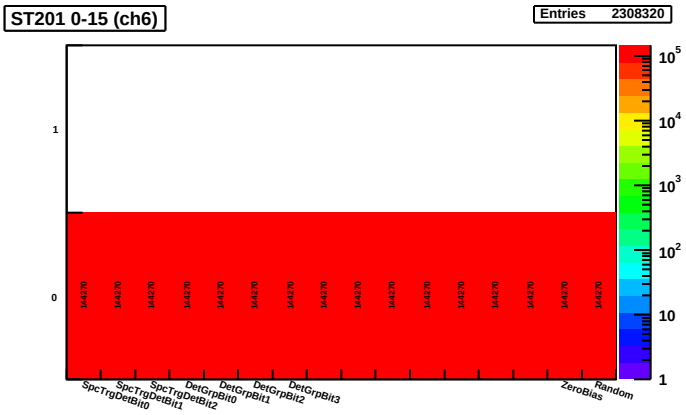

VT201 0-15 (ch1)
Entries 2308320
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

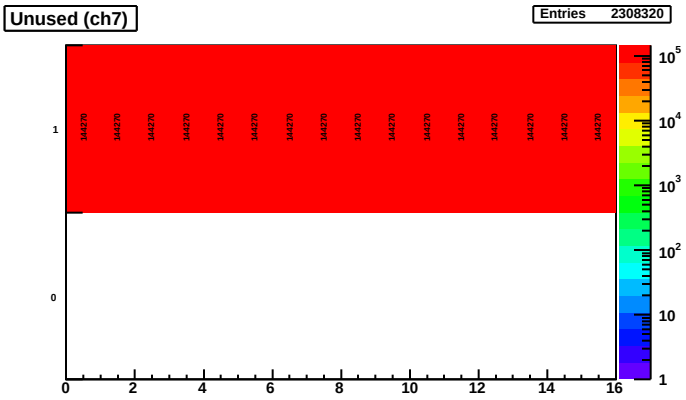

Unused (ch2)
Entries 2308320

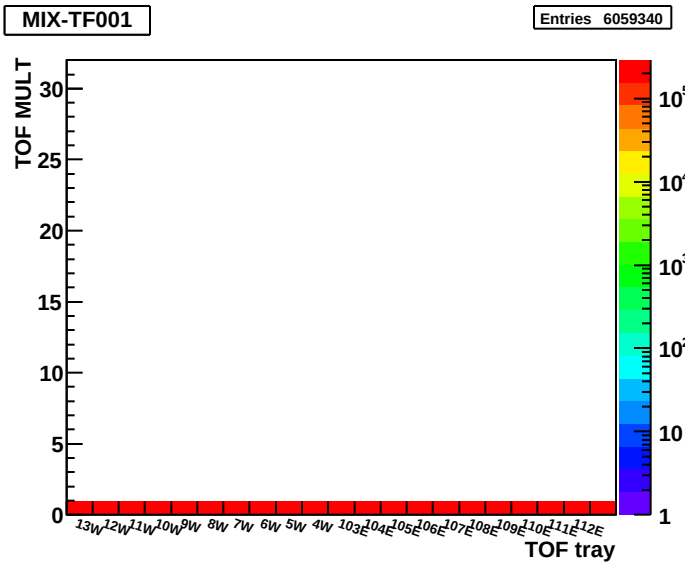

EM201 0-15 (ch3)
Entries 2308320
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

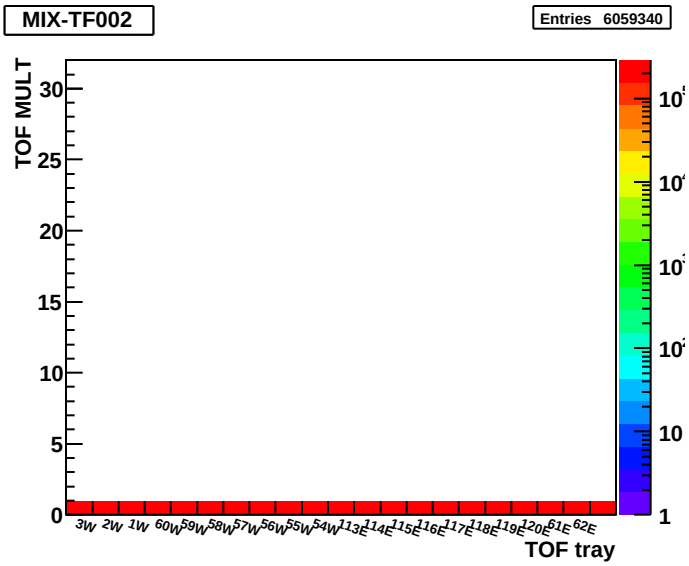

RAT board (ch4)
Entries 2308320
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

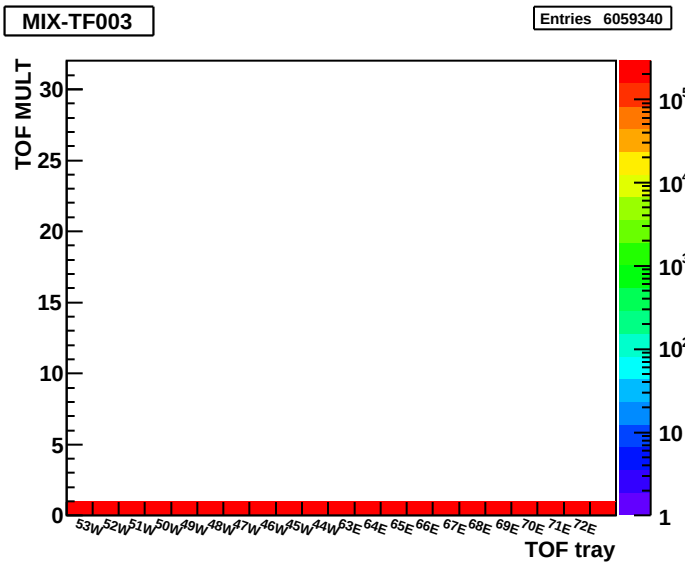

FP201 0-15 (ch5)
Entries 2308320
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

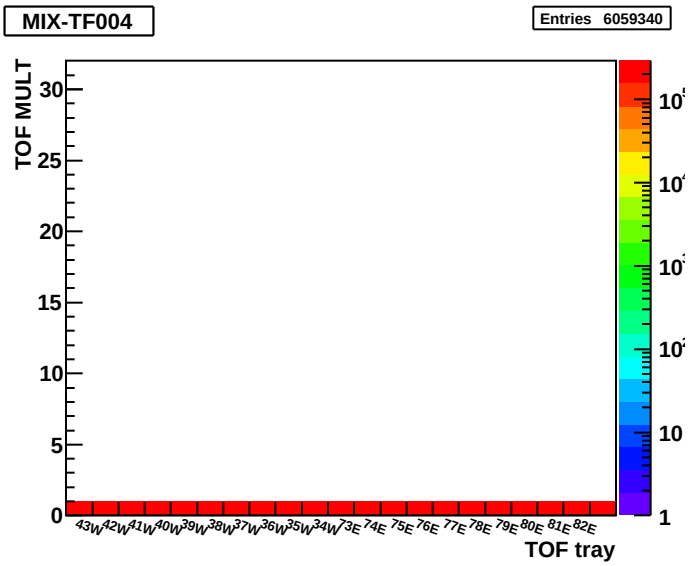

ST201 0-15 (ch6)
Entries 2308320
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

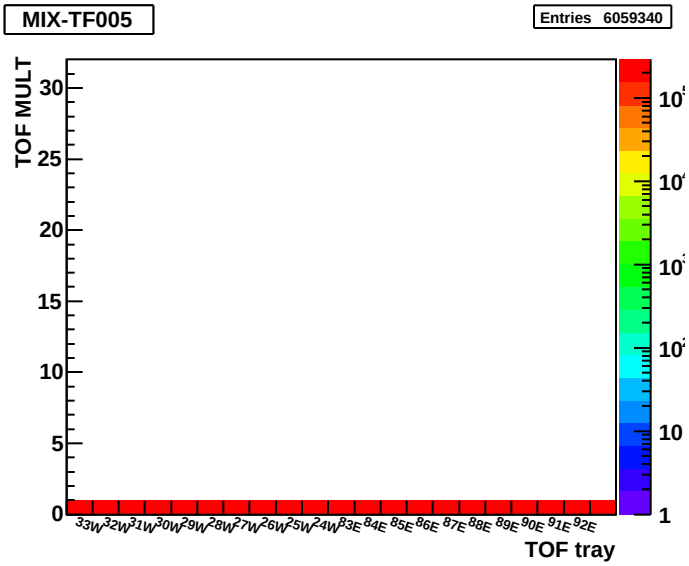

Unused (ch7)
Entries 2308320

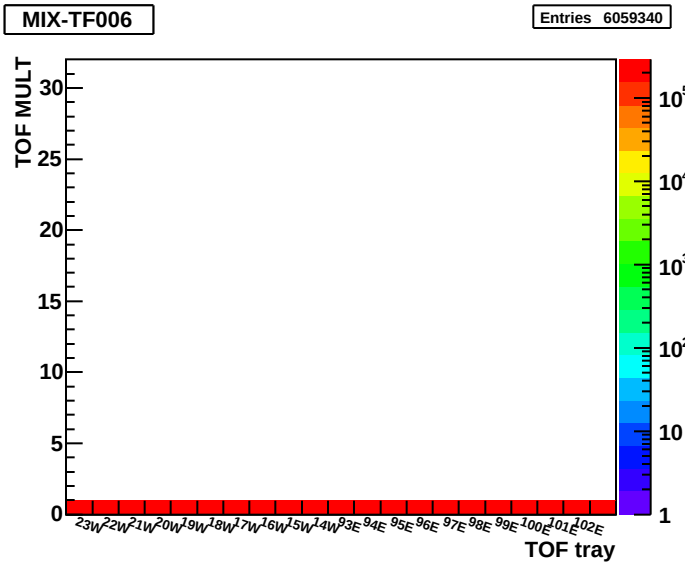

MIX-TF001
Entries 6059340
TOF MULT
TOF tray

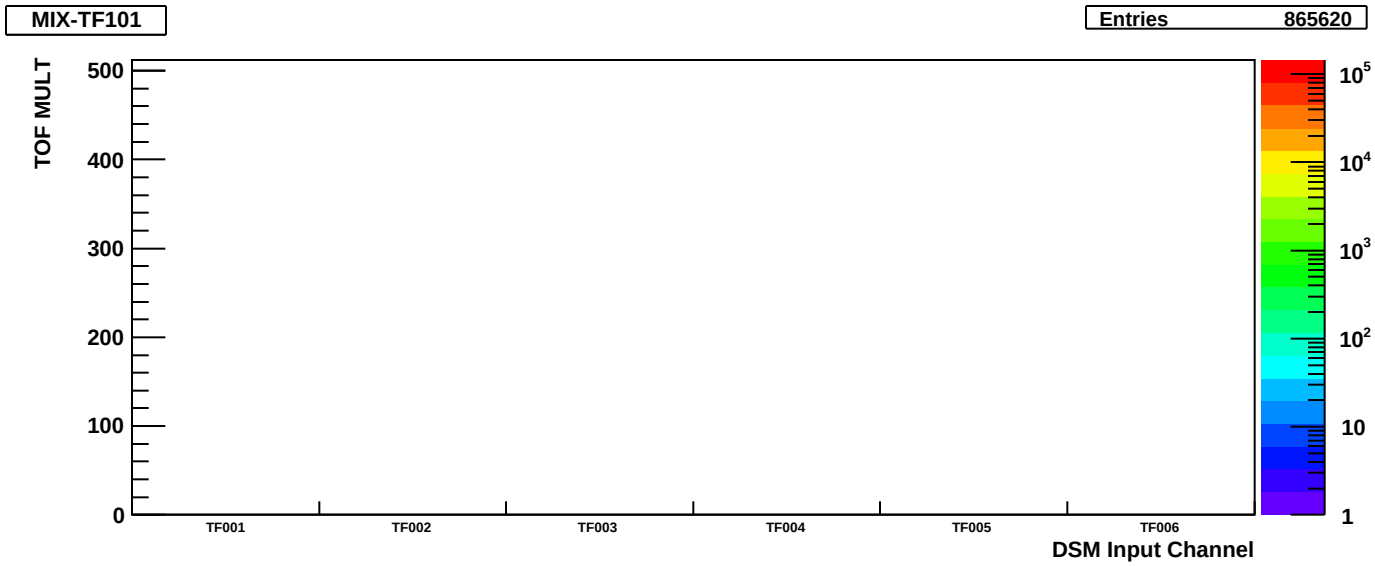

MIX-TF002
Entries 6059340
TOF MULT
TOF tray

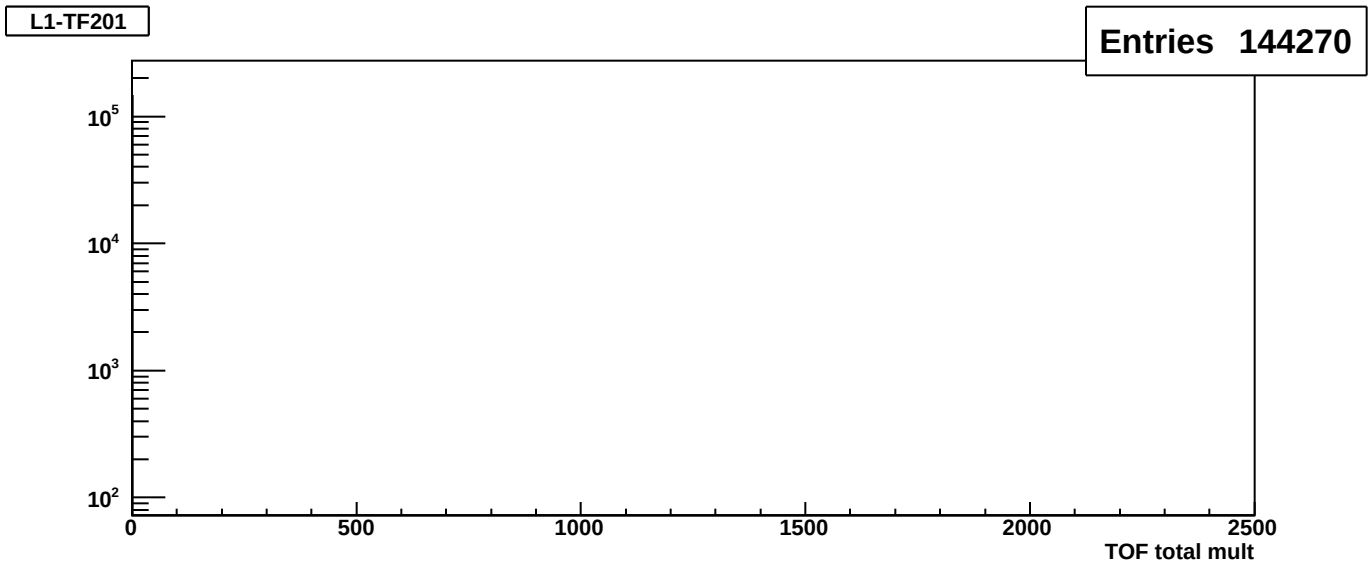

MIX-TF003
Entries 6059340
TOF MULT
TOF tray

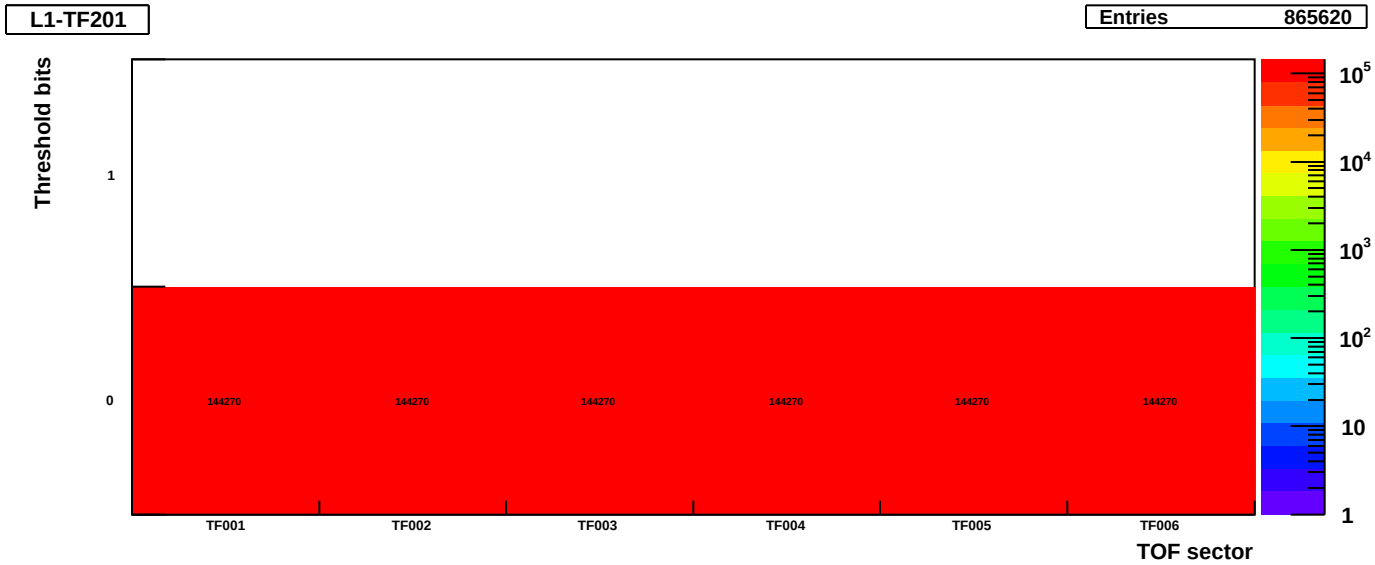

MIX-TF004
Entries 6059340
TOF MULT
TOF tray

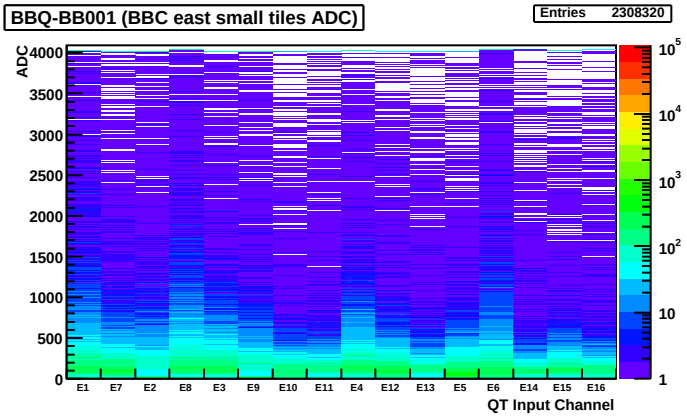

MIX-TF005
Entries 6059340
TOF MULT
TOF tray

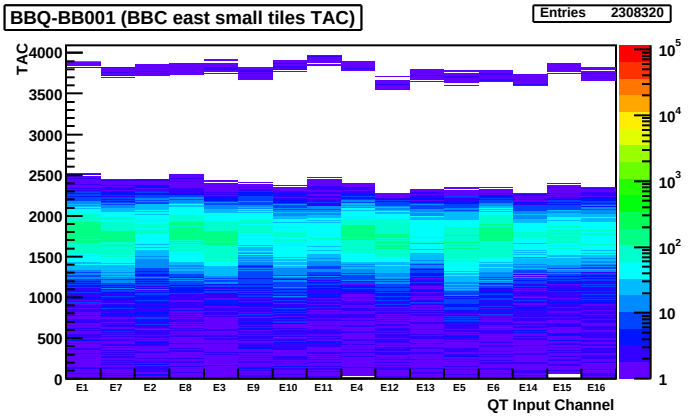

MIX-TF006
Entries 6059340
TOF MULT
TOF tray

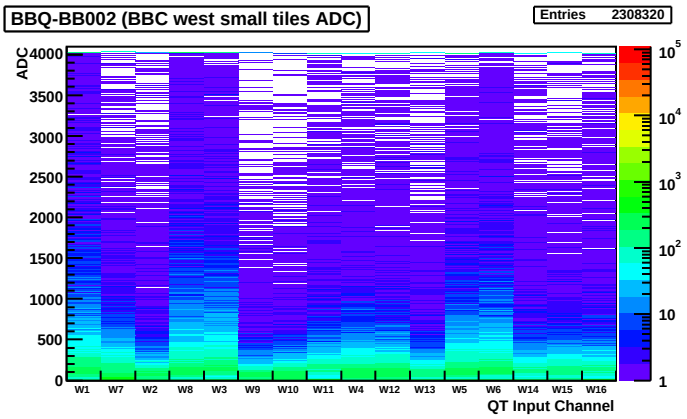

MIX-TF101
Entries 865620
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

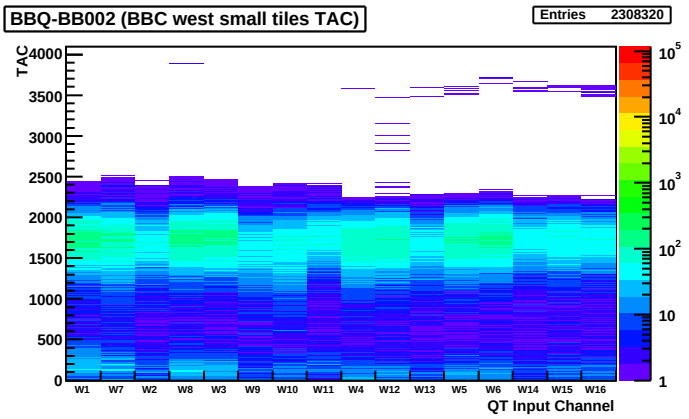

L1-TF201
Entries 144270
10^5
10^4
10^3
10^2
0
500
1000
1500
2000
2500
TOF total mult

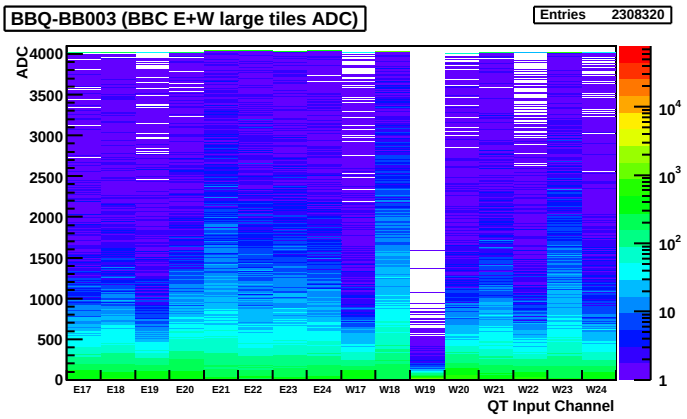

L1-TF201
Entries 865620
Threshold bits
1
0
144270
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2
10
1

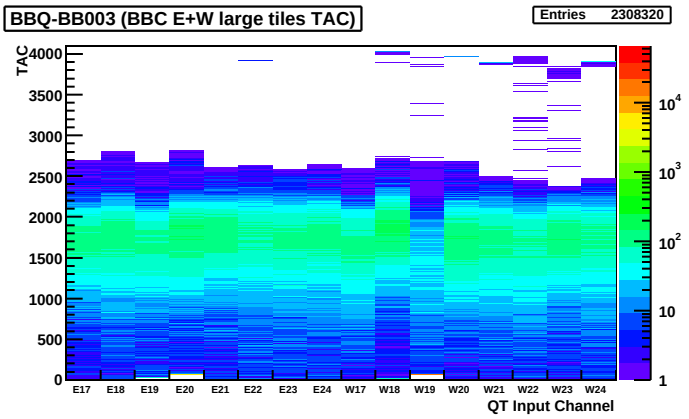

BBQ-BB001 (BBC east small tiles ADC)
Entries 2308320
ADC
QT Input Channel

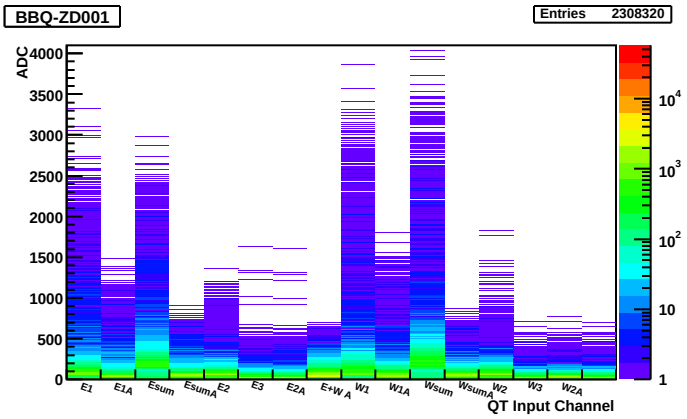

BBQ-BB001 (BBC east small tiles TAC)
Entries 2308320
TAC
QT Input Channel

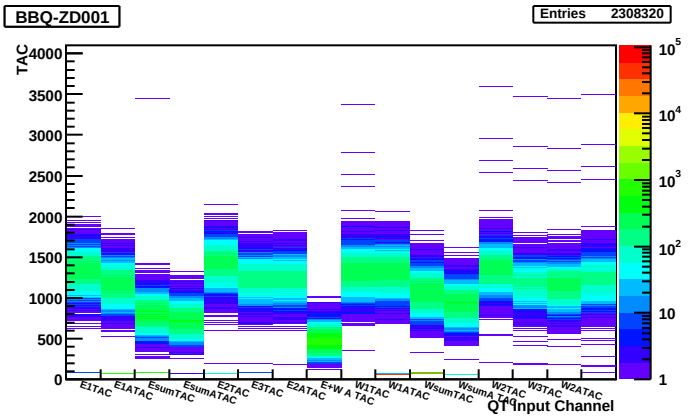

BBQ-BB002 (BBC west small tiles ADC)
Entries 2308320
ADC
QT Input Channel

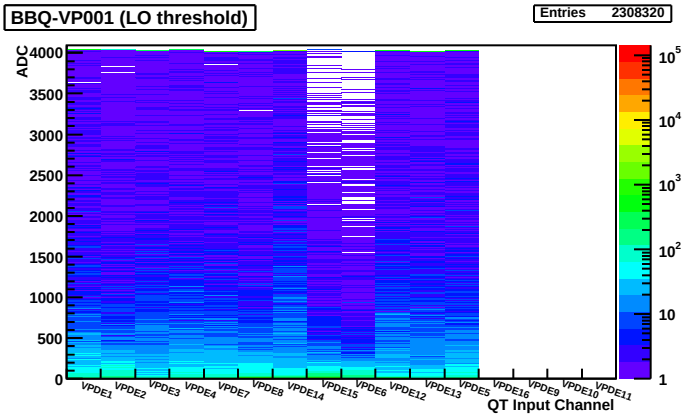

BBQ-BB002 (BBC west small tiles TAC)
Entries 2308320
TAC
QT Input Channel

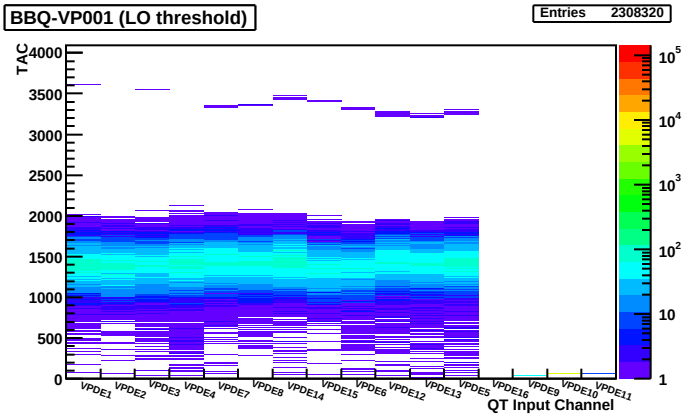

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2308320
ADC
QT Input Channel

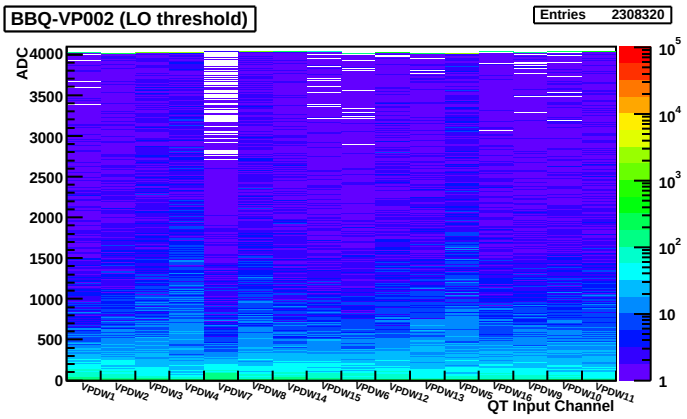

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2308320
TAC
QT Input Channel

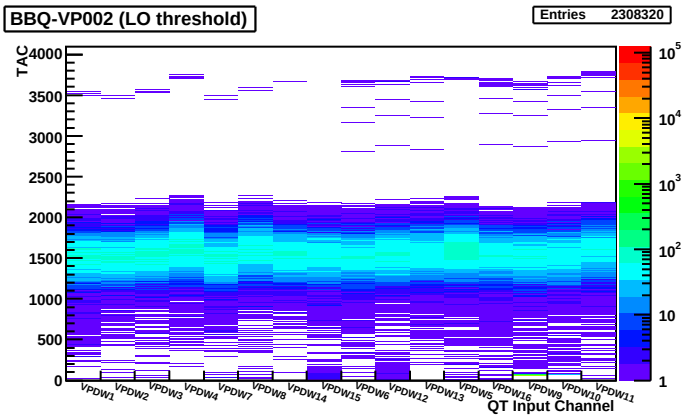

BBQ-ZD001
Entries 2308320
ADC
QT Input Channel

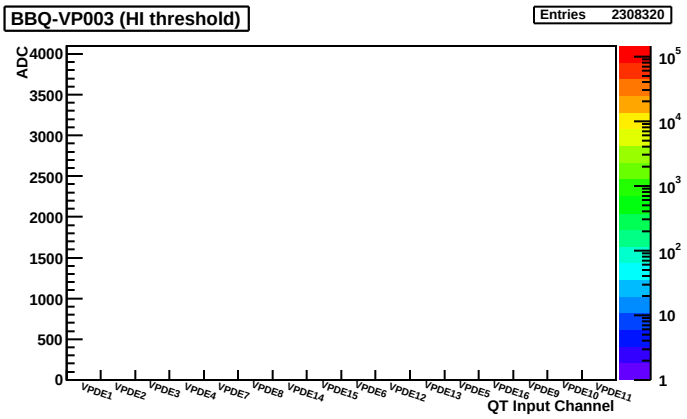

BBQ-ZD001
Entries 2308320
TAC
QT Input Channel

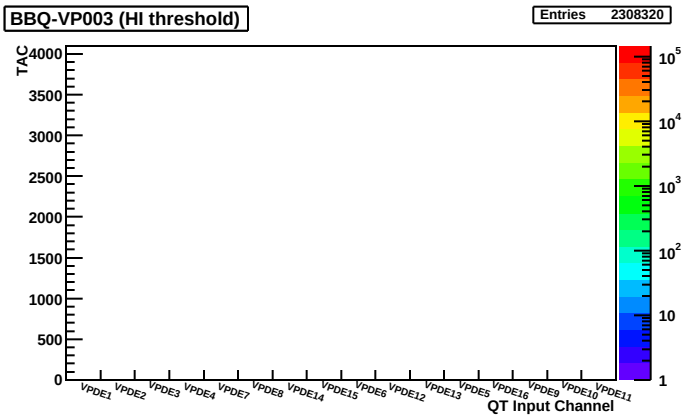

BBQ-VP001 (LO threshold)
Entries 2308320
ADC
QT Input Channel

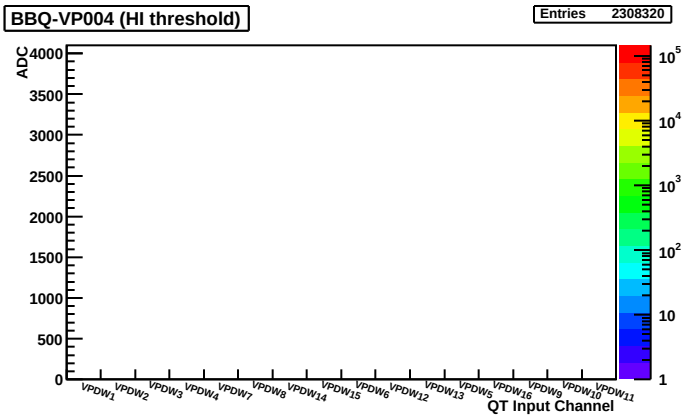

BBQ-VP001 (LO threshold)
Entries 2308320
TAC
QT Input Channel

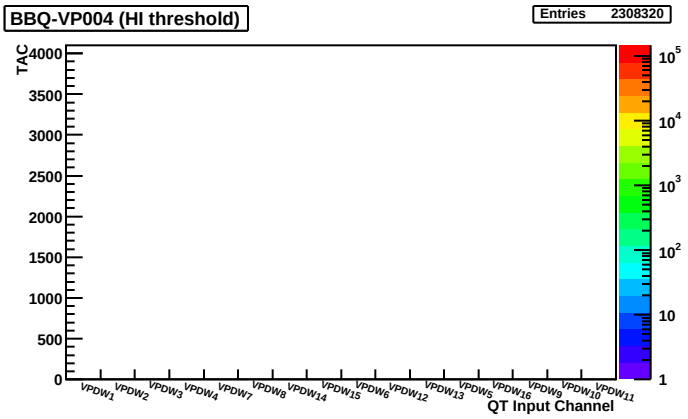

BBQ-VP002 (LO threshold)
Entries 2308320
ADC
QT Input Channel

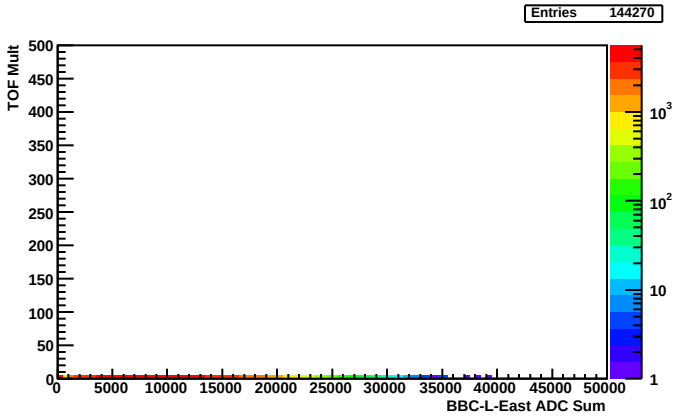

BBQ-VP002 (LO threshold)
Entries 2308320
TAC
QT Input Channel

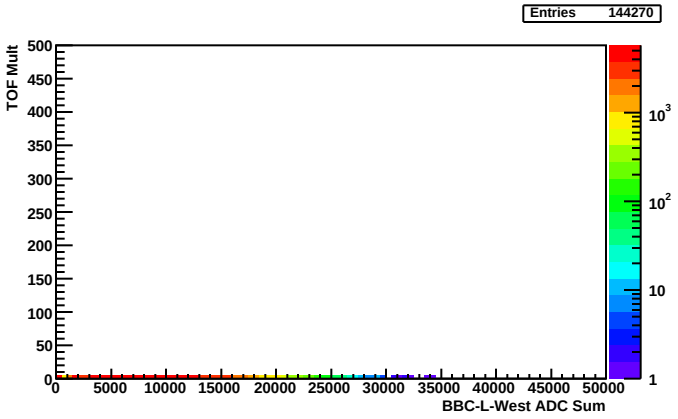

BBQ-VP003 (HI threshold)
Entries 2308320
ADC
QT Input Channel

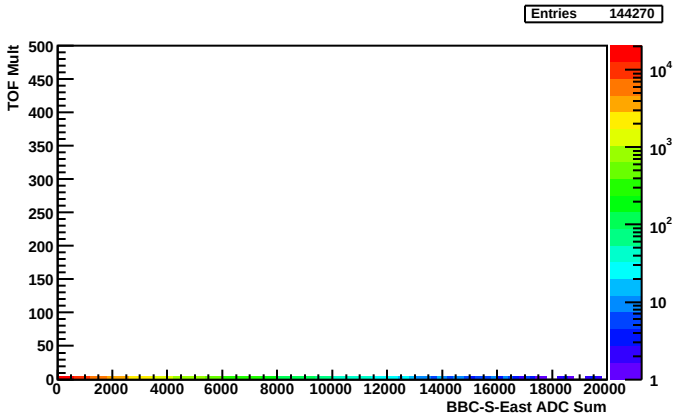

BBQ-VP003 (HI threshold)
Entries 2308320
TAC
QT Input Channel

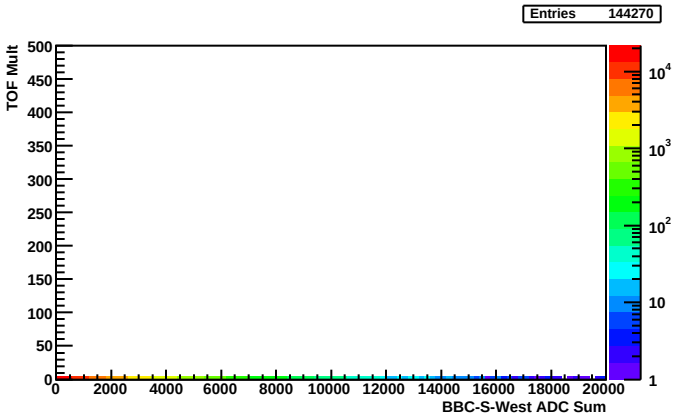

BBQ-VP004 (HI threshold)
Entries 2308320
ADC
QT Input Channel

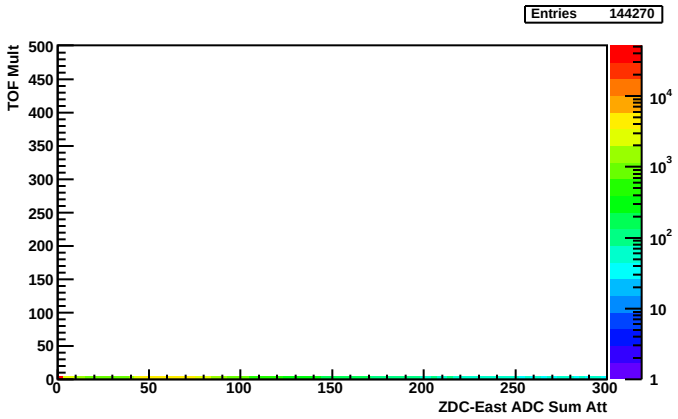

BBQ-VP004 (HI threshold)
Entries 2308320
TAC
QT Input Channel

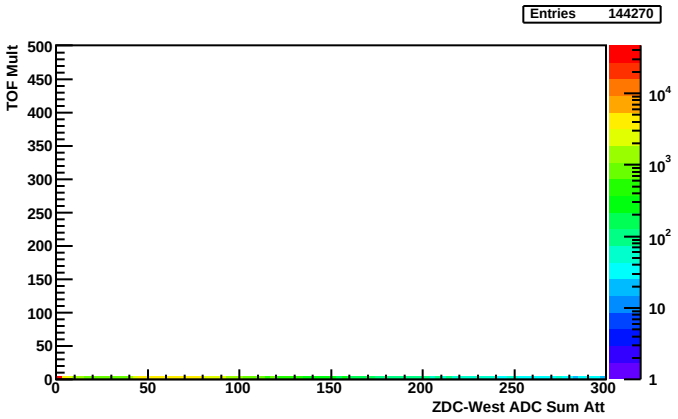

Entries 144270
TOF Mult
BBC-L-East ADC Sum

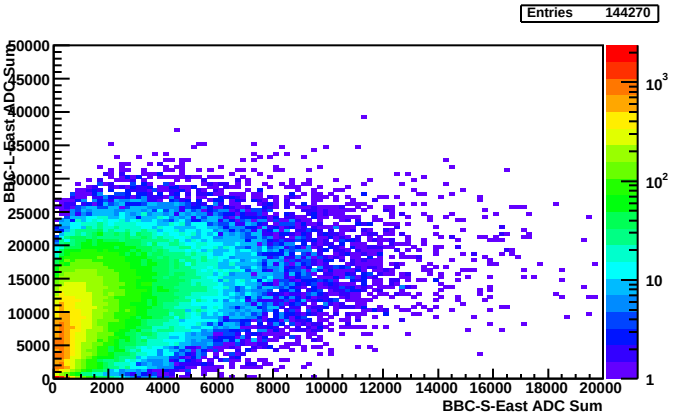

Entries 144270
TOF Mult
BBC-L-West ADC Sum

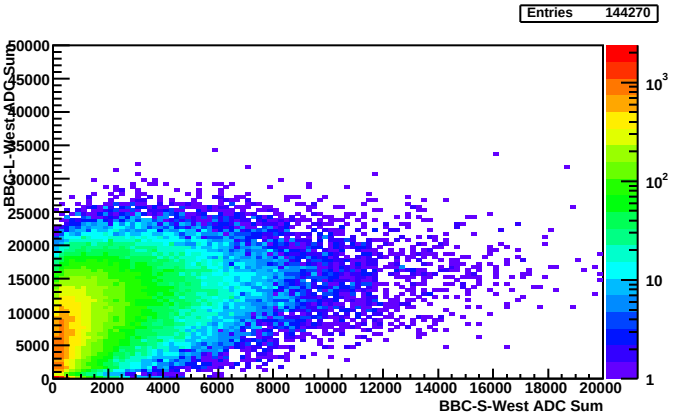

Entries 144270
TOF Mult
BBC-S-East ADC Sum

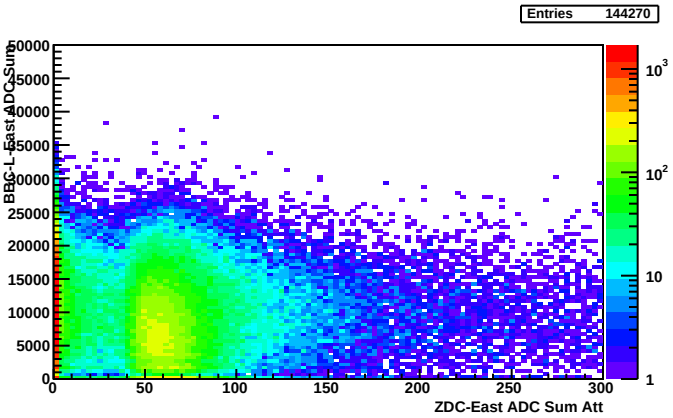

Entries 144270
TOF Mult
BBC-S-West ADC Sum

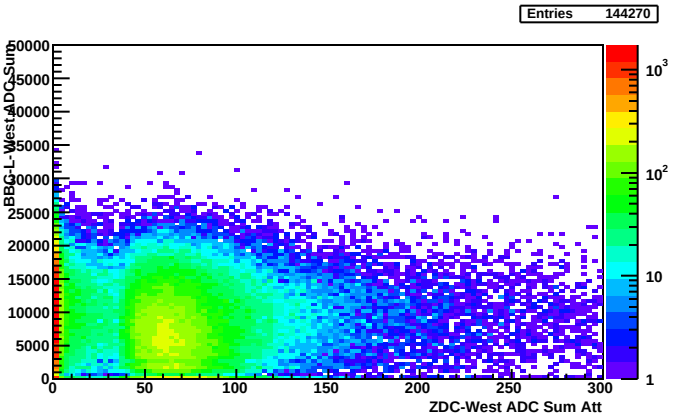

Entries 144270
TOF Mult
ZDC-East ADC Sum Att

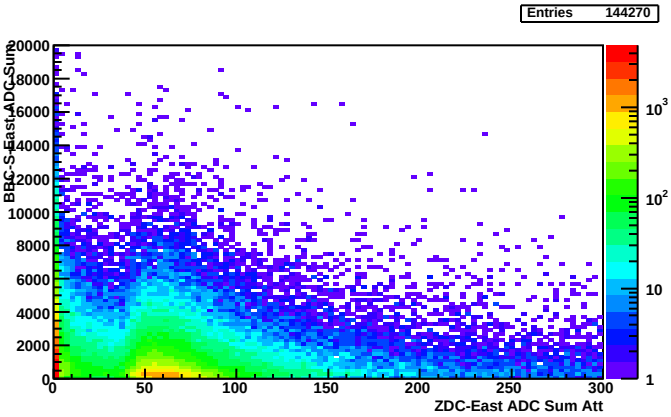

Entries 144270
TOF Mult
ZDC-West ADC Sum Att

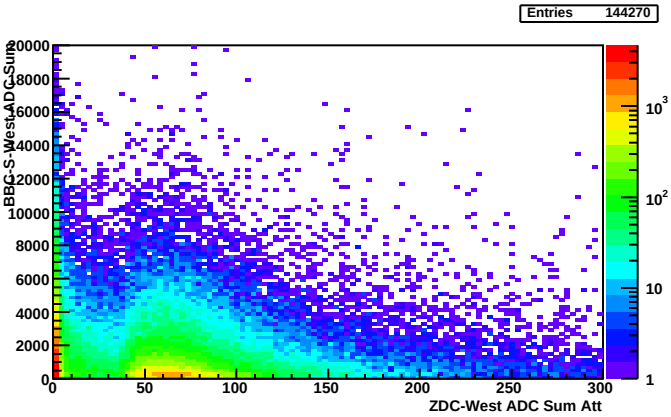

Entries 144270
BBC-L-East ADC Sum
BBC-S-East ADC Sum

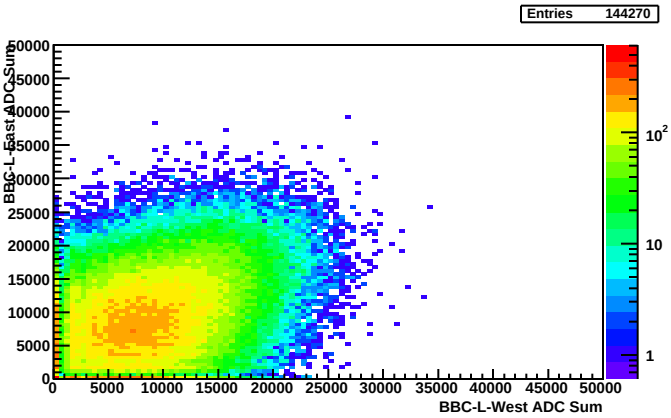

Entries 144270
BBC-L-West ADC Sum
BBC-S-West ADC Sum

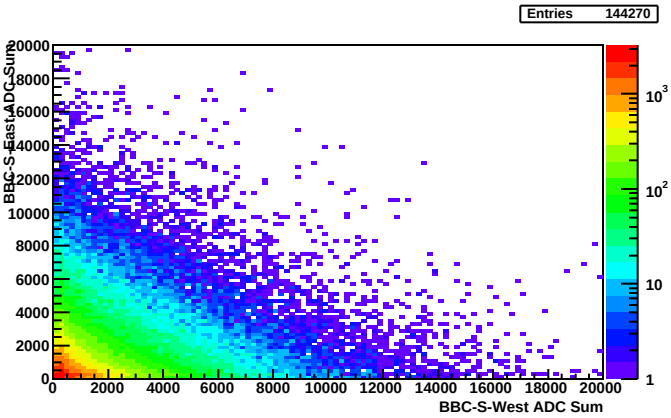

Entries 144270
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

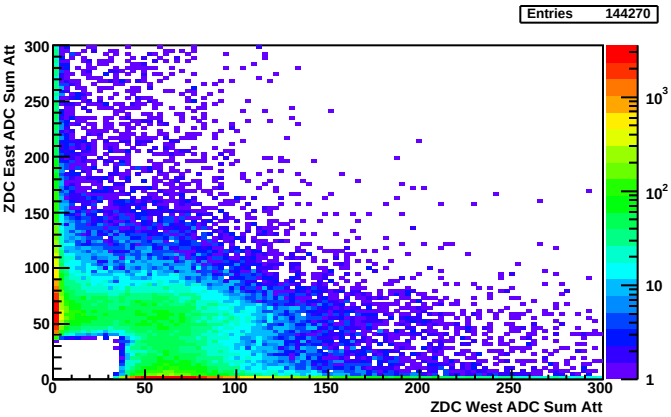

Entries 144270
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

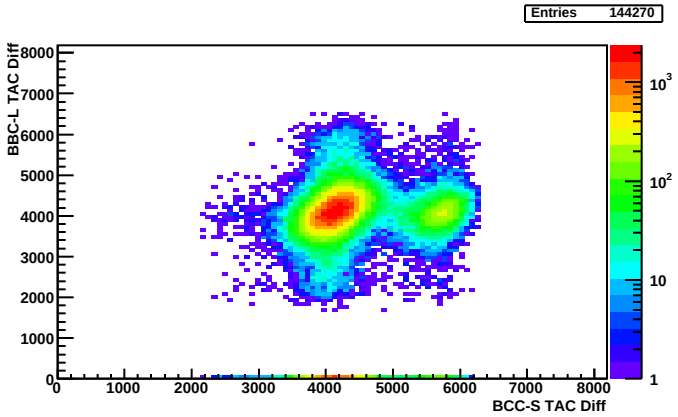

Entries 144270
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

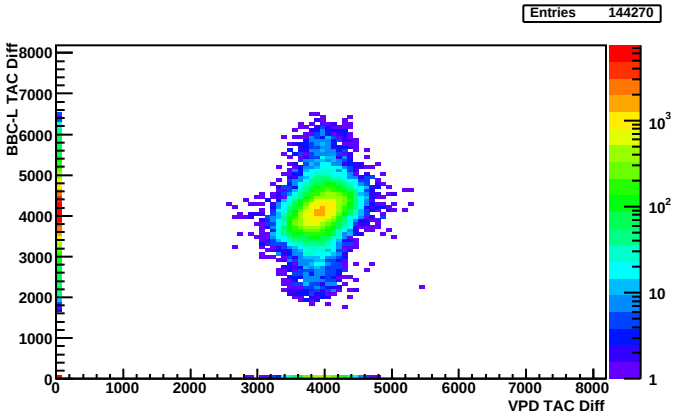

Entries 144270
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

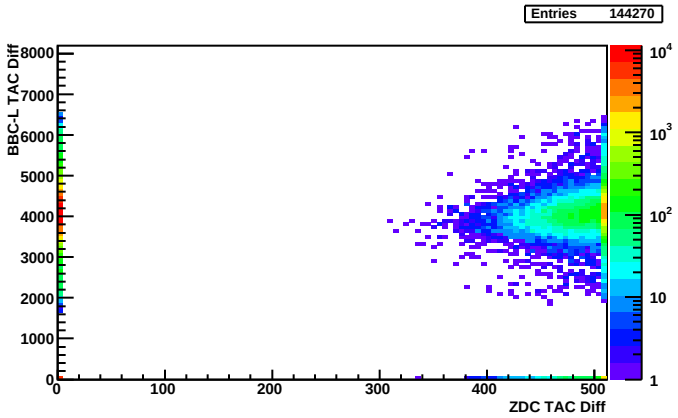

Entries 144270
BBC-L-East ADC Sum
BBC-L-West ADC Sum

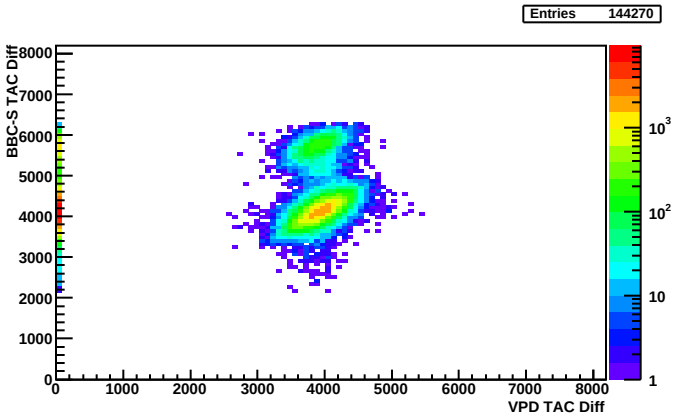

Entries 144270
BBC-S-East ADC Sum
BBC-S-West ADC Sum

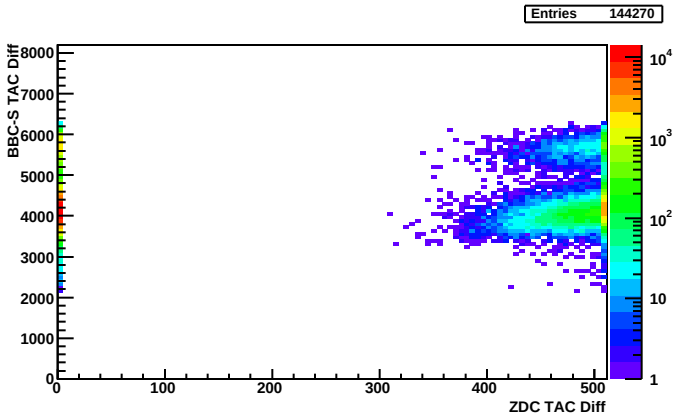

Entries 144270
ZDC East ADC Sum Att
ZDC West ADC Sum Att

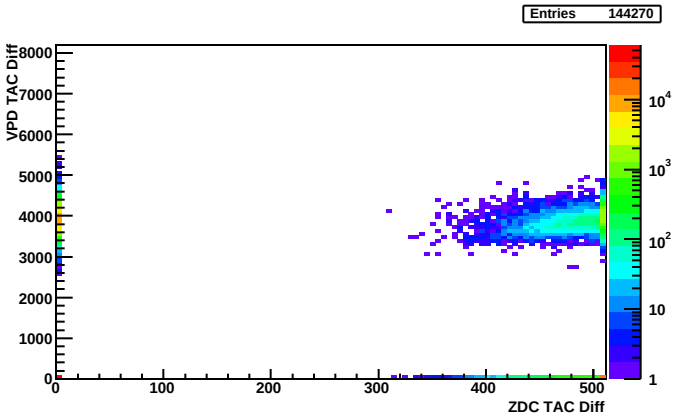

Entries 144270
BBC-L TAC Diff
BCC-S TAC Diff

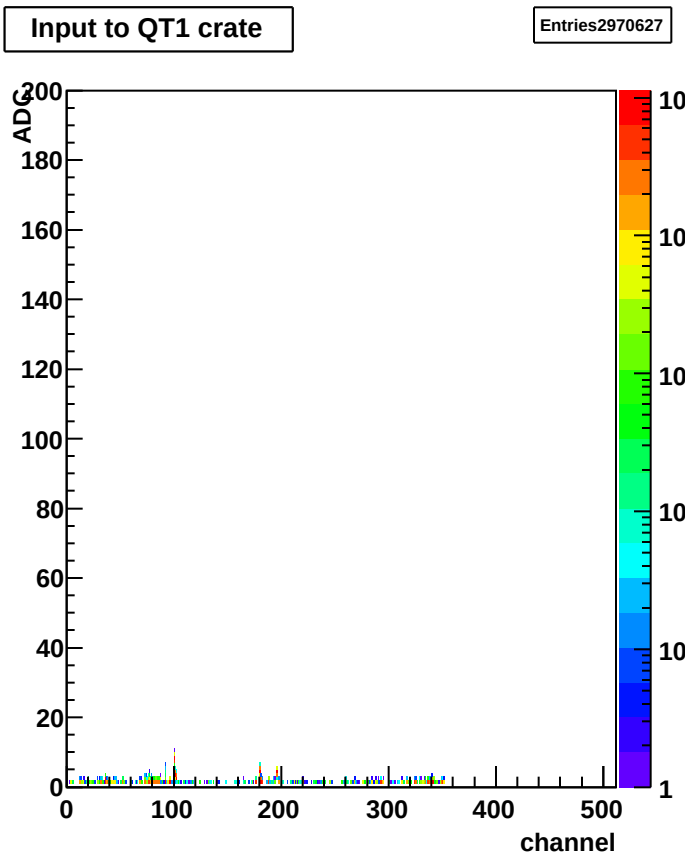

Entries 144270
BBC-L TAC Diff
VPD TAC Diff

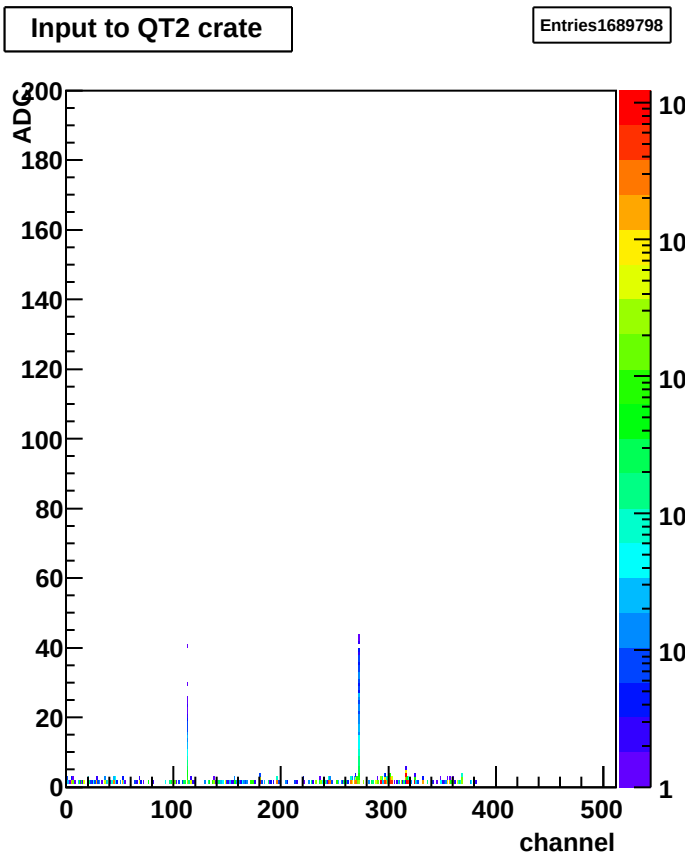

Entries 144270
BBC-L TAC Diff
ZDC TAC Diff

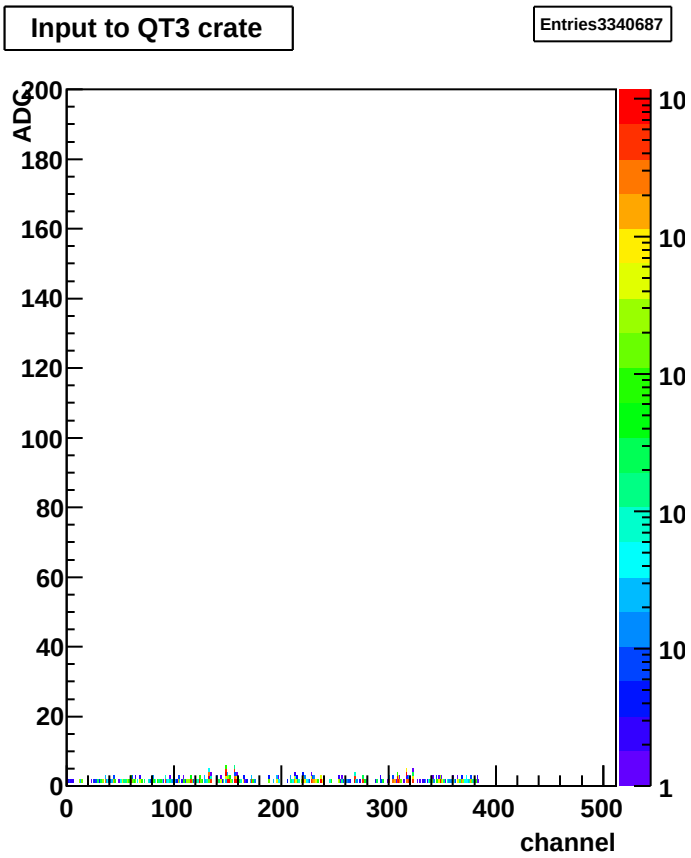

Entries 144270
BBC-S TAC Diff
VPD TAC Diff

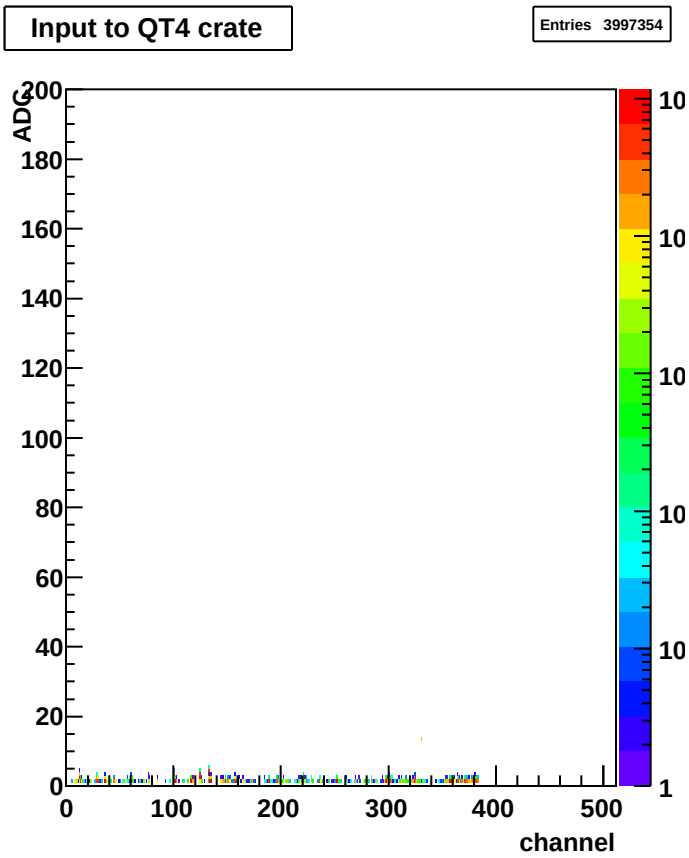

Entries 144270
BBC-S TAC Diff
ZDC TAC Diff

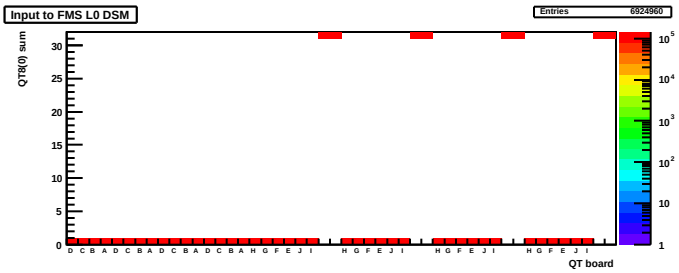

Entries 144270
VPD TAC Diff
ZDC TAC Diff

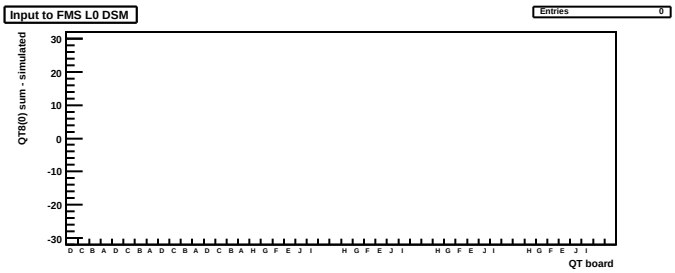

Input to QT1 crate
Entries2970627
ADC
channel

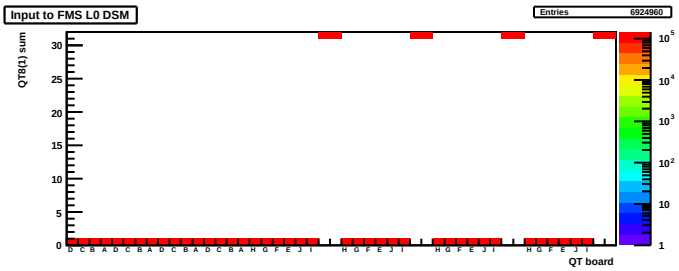

Input to QT2 crate
Entries1689798
ADC
channel

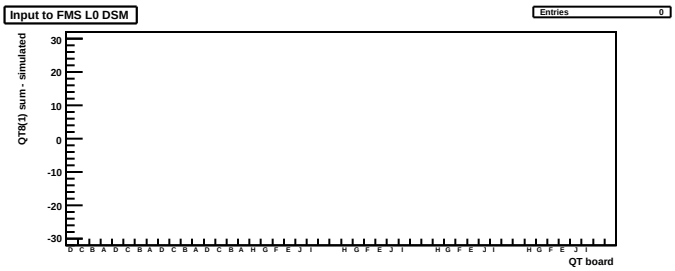

Input to QT3 crate
Entries3340687
ADC
channel

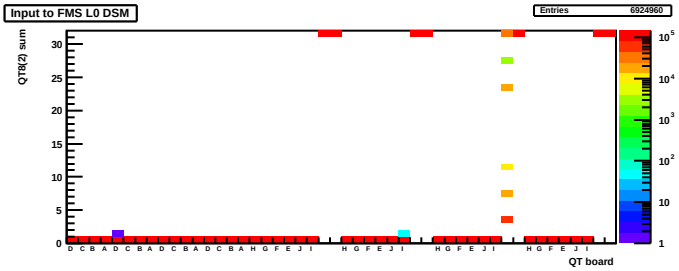

Input to QT4 crate
Entries 3997354
ADC
channel

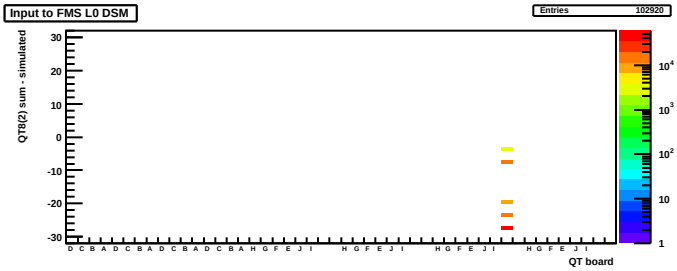

Input to FMS L0 DSM
Entries 6924960
QT8(0) sum
QT board

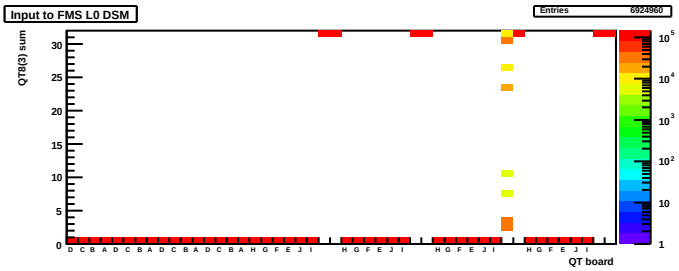

Input to FMS L0 DSM
Entries 0
QT8(0) sum - simulated
QT board

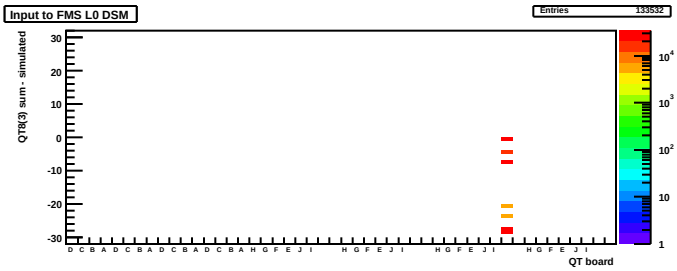

Input to FMS L0 DSM
Entries 6924960
QT8(1) sum
QT board

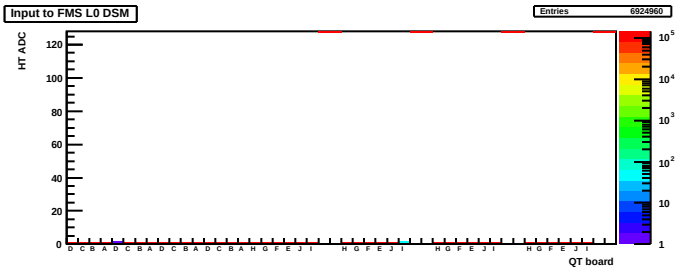

Input to FMS L0 DSM
Entries 0
QT8(1) sum - simulated
QT board

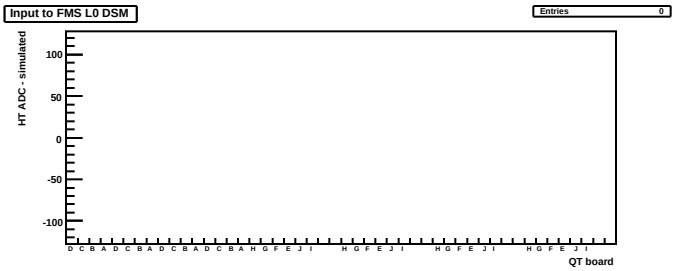

Input to FMS L0 DSM
Entries 6924960
QT8(2) sum
QT board

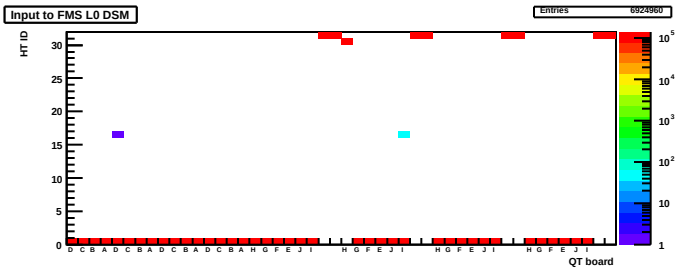

Input to FMS L0 DSM
Entries 102920
QT8(2) sum - simulated
QT board

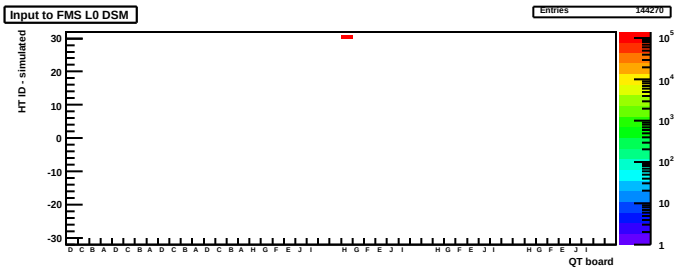

Input to FMS L0 DSM
Entries 6924960
QT8(3) sum
QT board

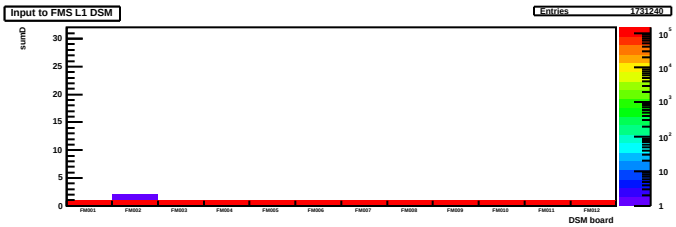

Input to FMS L0 DSM
Entries 133532
QT8(3) sum - simulated
QT board

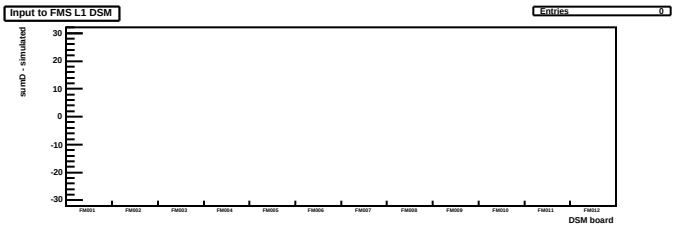

Input to FMS L0 DSM
Entries 6924960
HT ADC
QT board

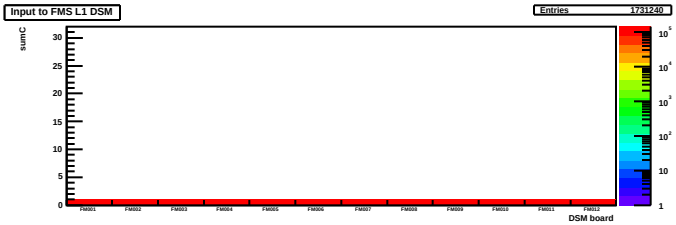

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

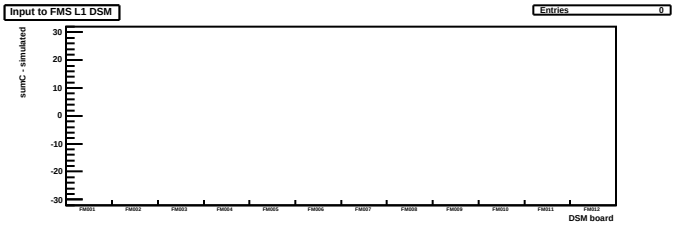

Input to FMS L0 DSM
Entries 6924960
HT ID
QT board

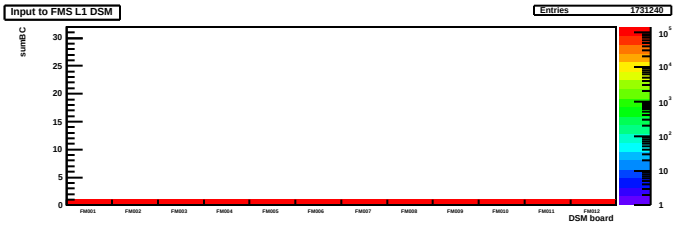

Input to FMS L0 DSM
Entries 144270
HT ID - simulated
QT board

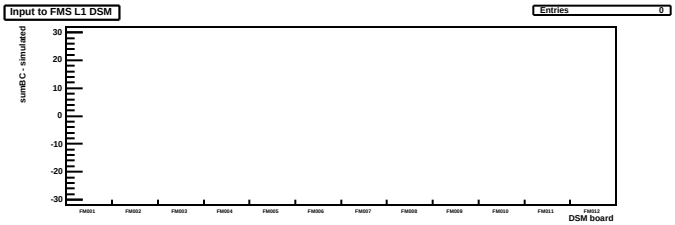

Input to FMS L1 DSM
Entries 1731240
sumD
DSM board

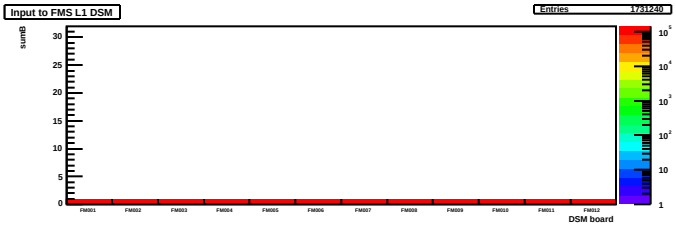

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

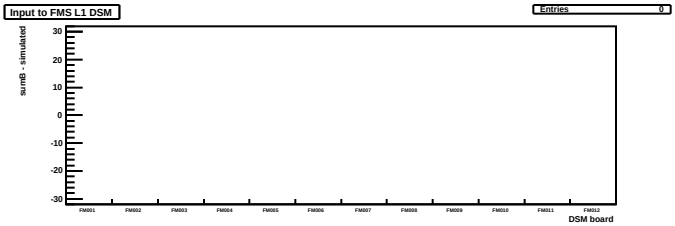

Input to FMS L1 DSM
Entries 1731240
sumC
DSM board

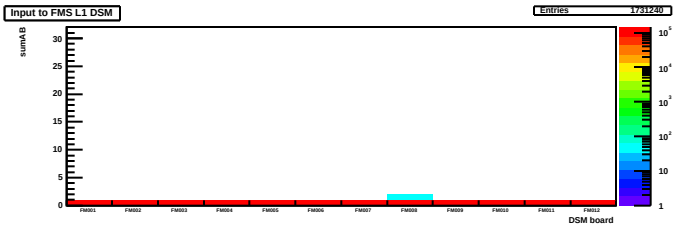

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

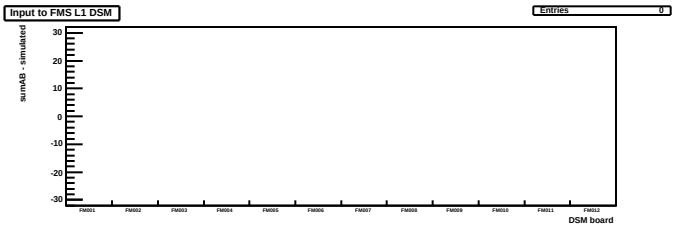

Input to FMS L1 DSM
Entries 1731240
sumBC
DSM board

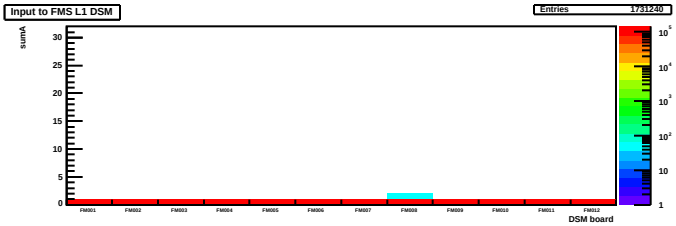

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

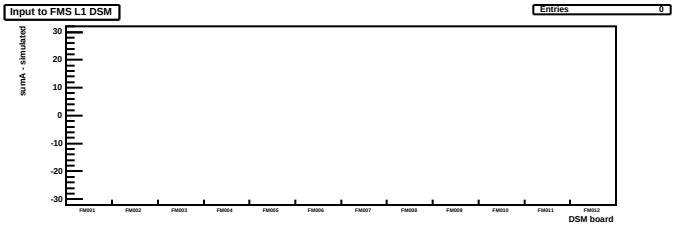

Input to FMS L1 DSM
Entries 1731240
sumB
DSM board

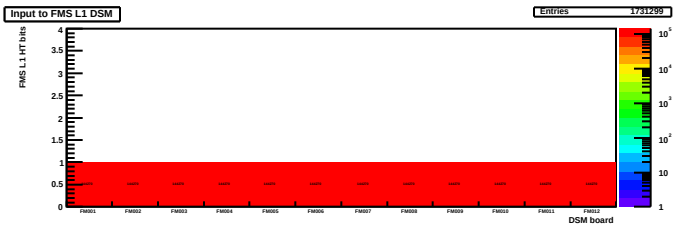

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

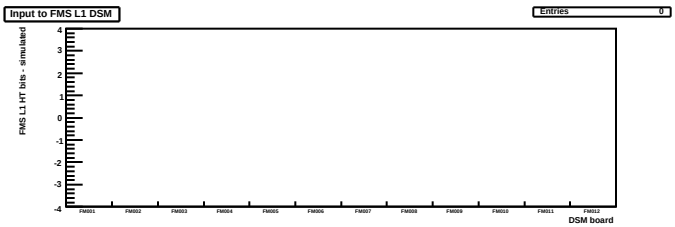

Input to FMS L1 DSM
Entries 1731240
sumAB
DSM board

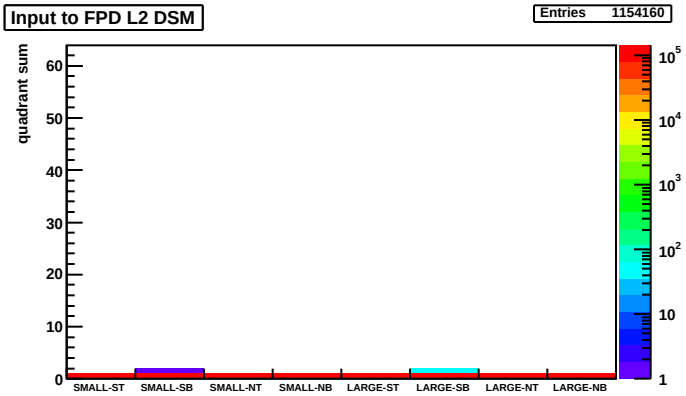

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

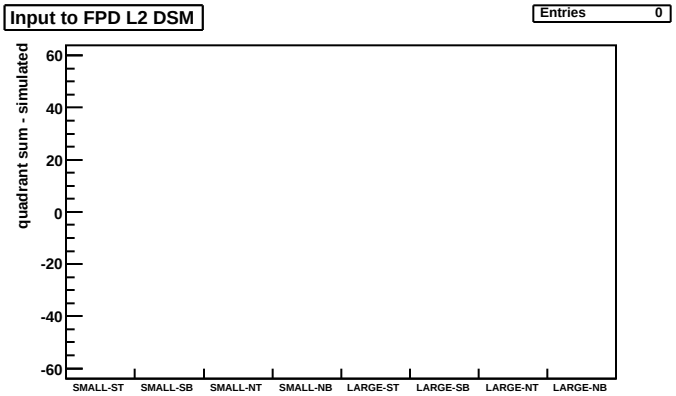

Input to FMS L1 DSM
Entries 1731240
sumA
DSM board

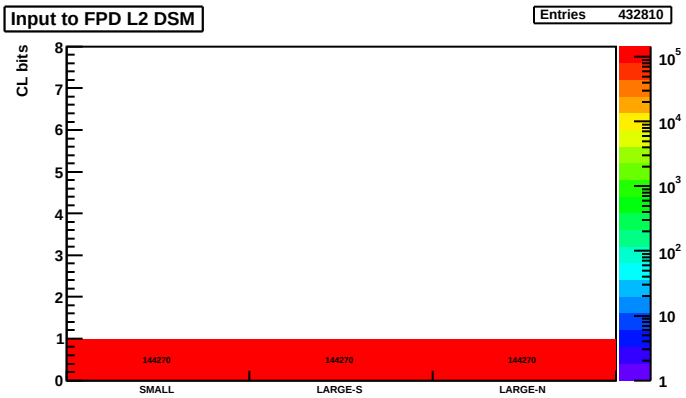

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

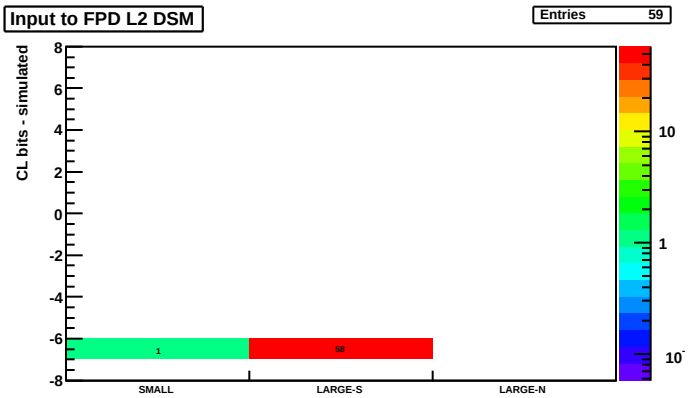

Input to FMS L1 DSM
Entries 1731299
FMS L1 HT bits
DSM board

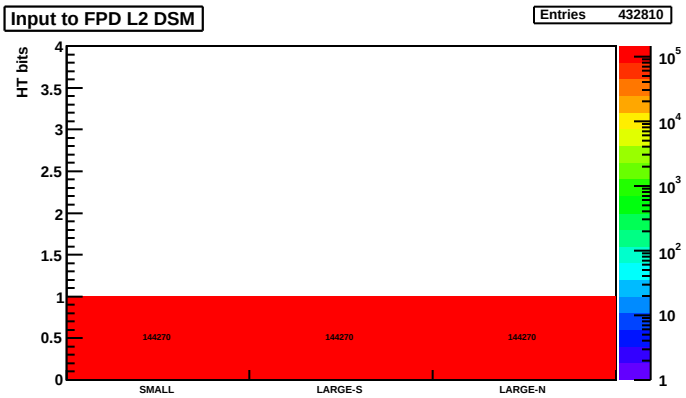

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

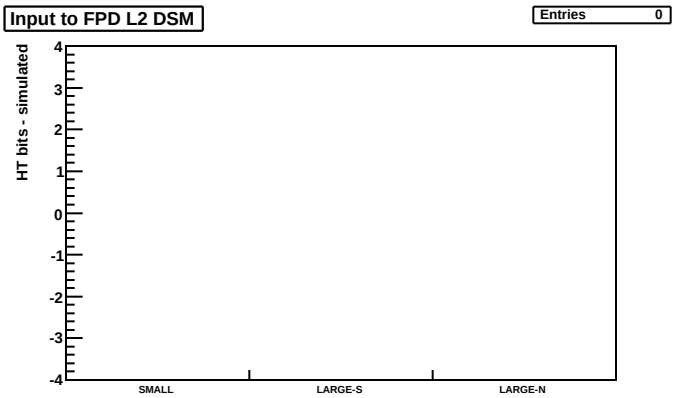

Input to FPD L2 DSM
Entries 1154160
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

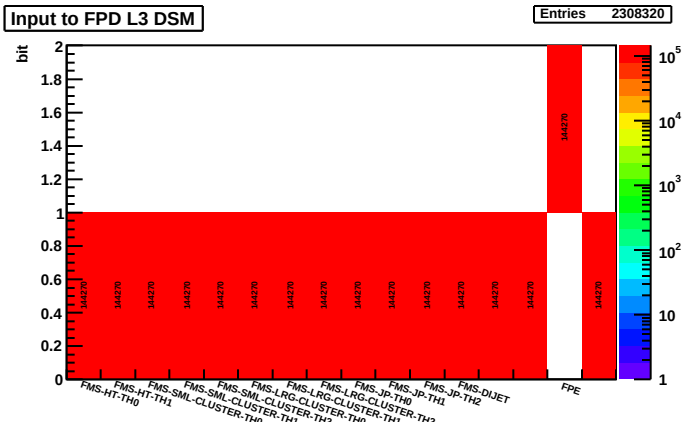

Input to FPD L2 DSM
Entries 0
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

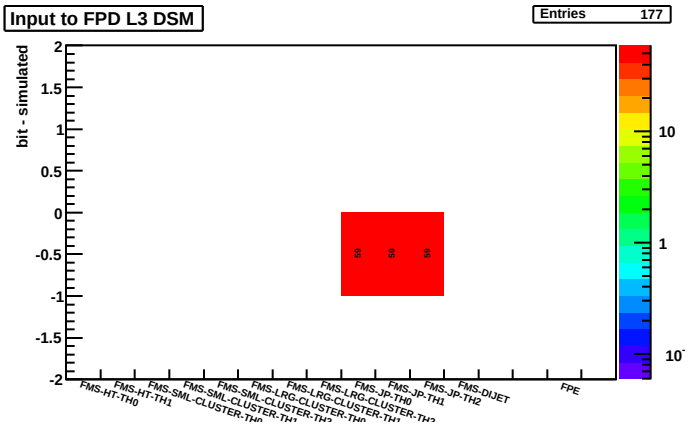

Input to FPD L2 DSM
Entries 432810
CL bits
144270 144270 144270
SMALL LARGE-S LARGE-N

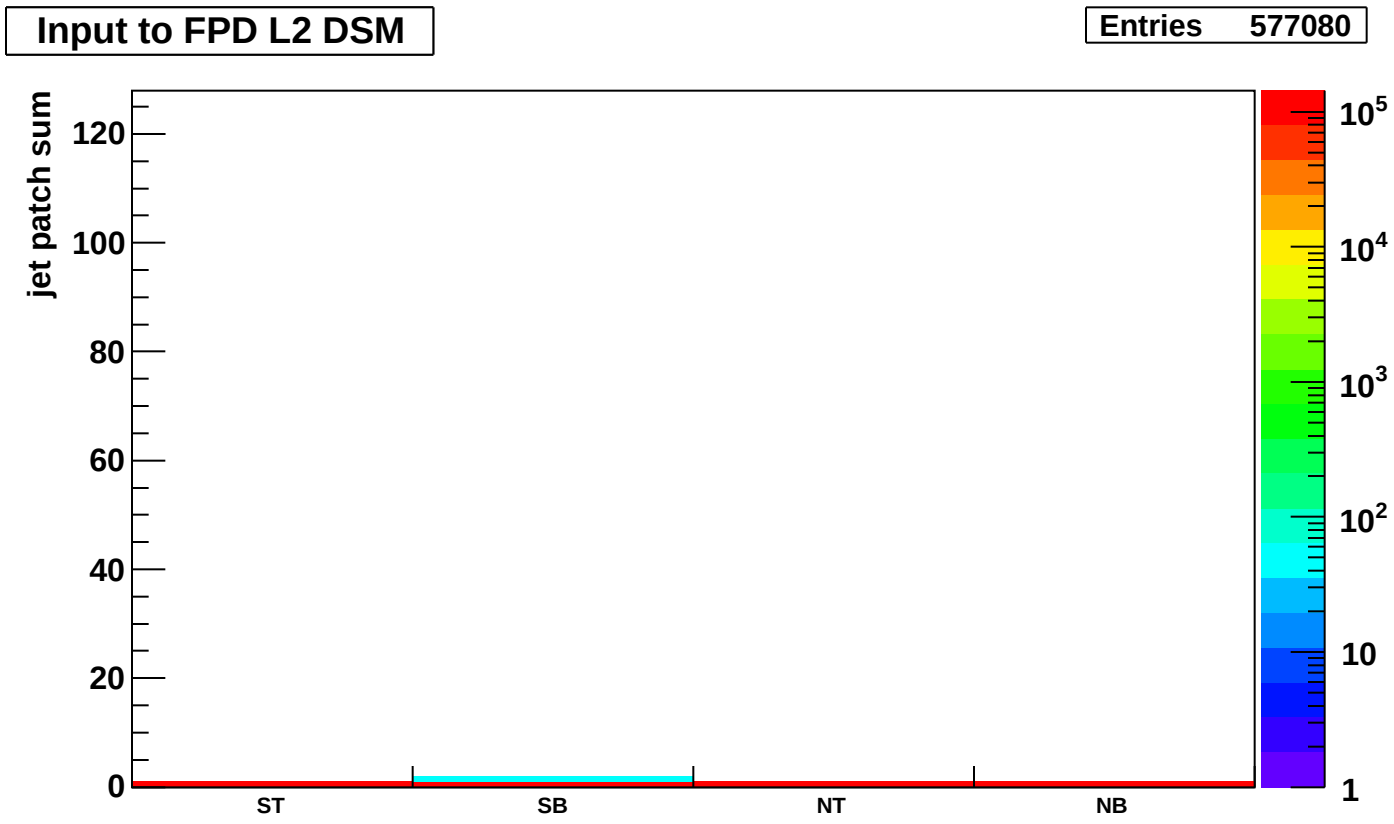

Input to FPD L2 DSM
Entries 59
CL bits - simulated
1 58
SMALL LARGE-S LARGE-N

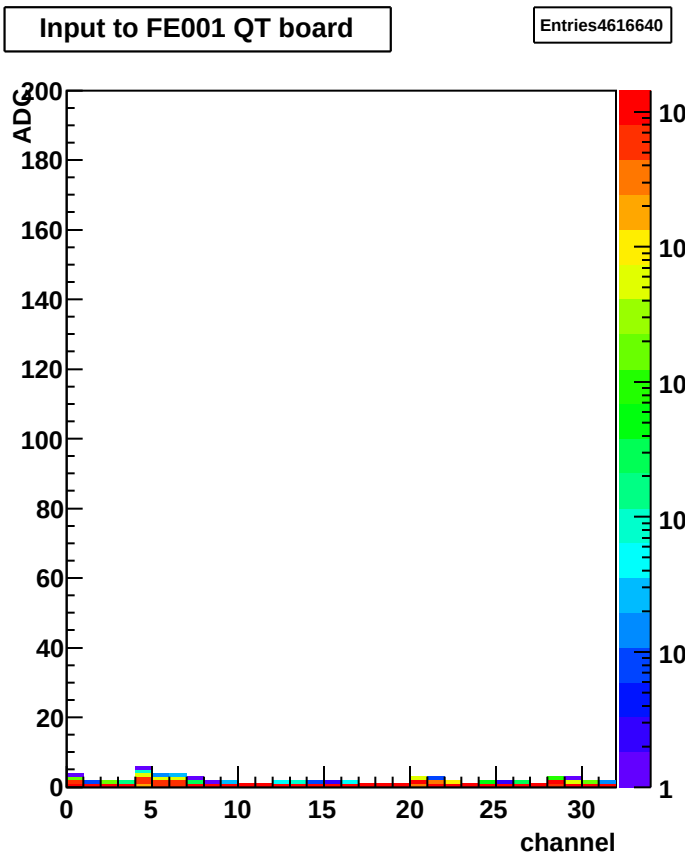

Input to FPD L2 DSM
Entries 432810
HT bits
144270 144270 144270
SMALL LARGE-S LARGE-N

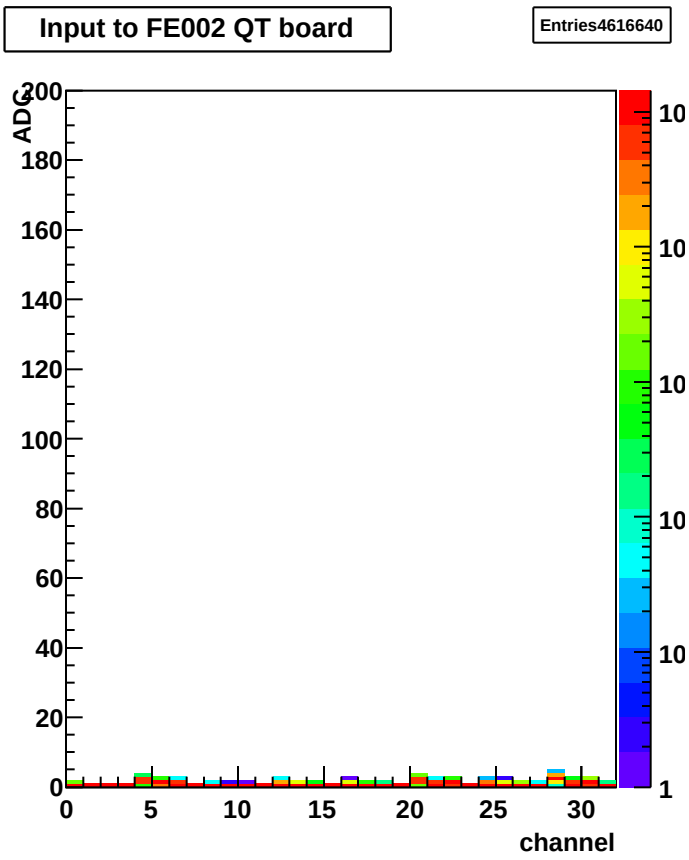

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

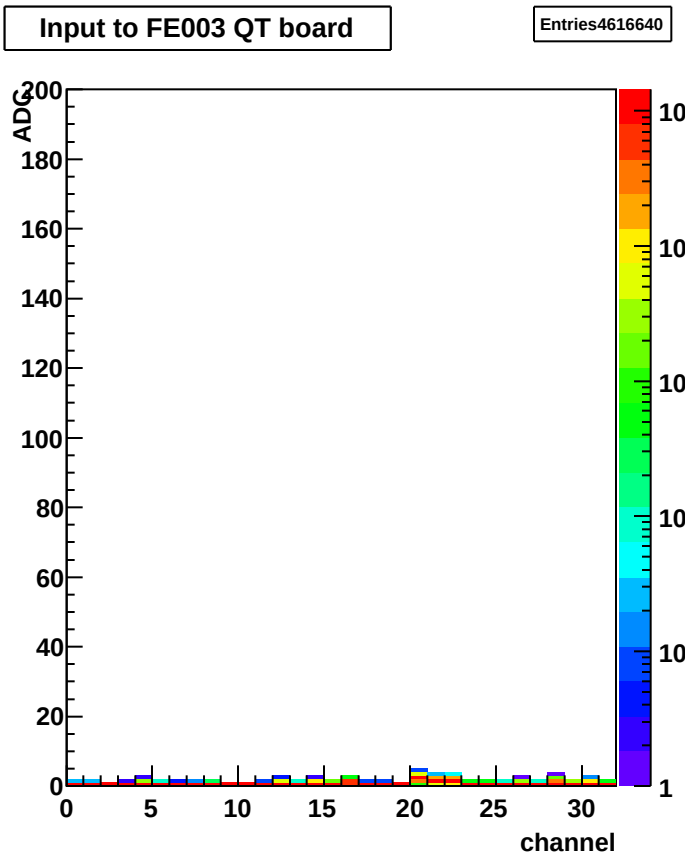

Input to FPD L3 DSM
Entries 2308320
bit
144270
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

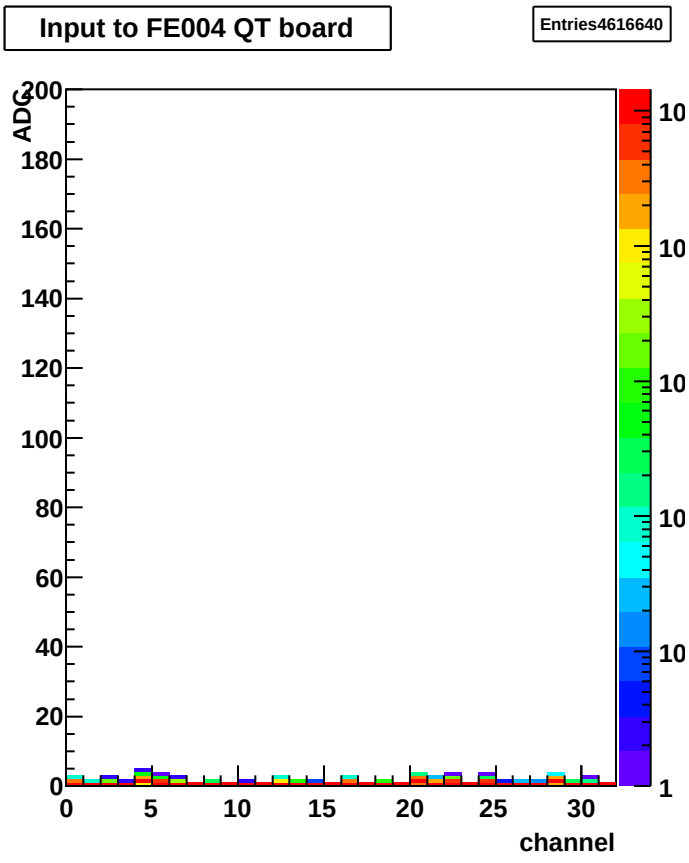

Input to FPD L3 DSM
Entries 177
bit - simulated
59 59 59
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

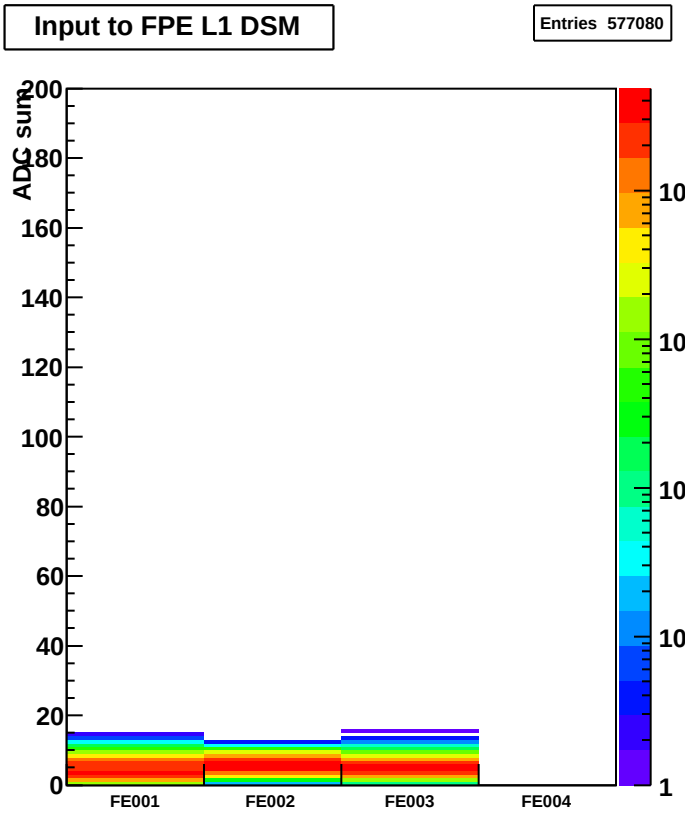

Input to FPD L2 DSM
Entries 577080
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10^5
10^4
10^3
10^2
10
1

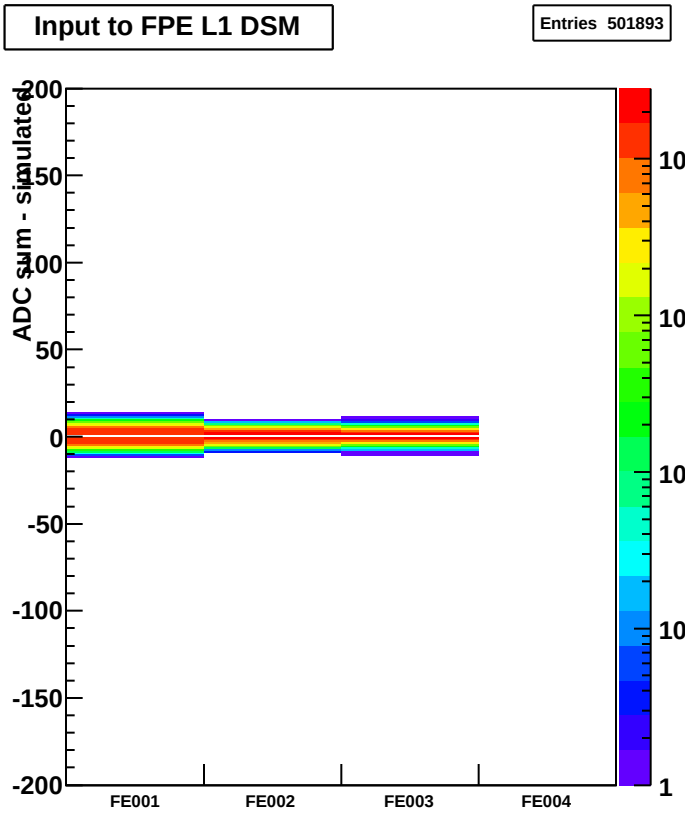

Input to FE001 QT board
Entries4616640
ADC
channel

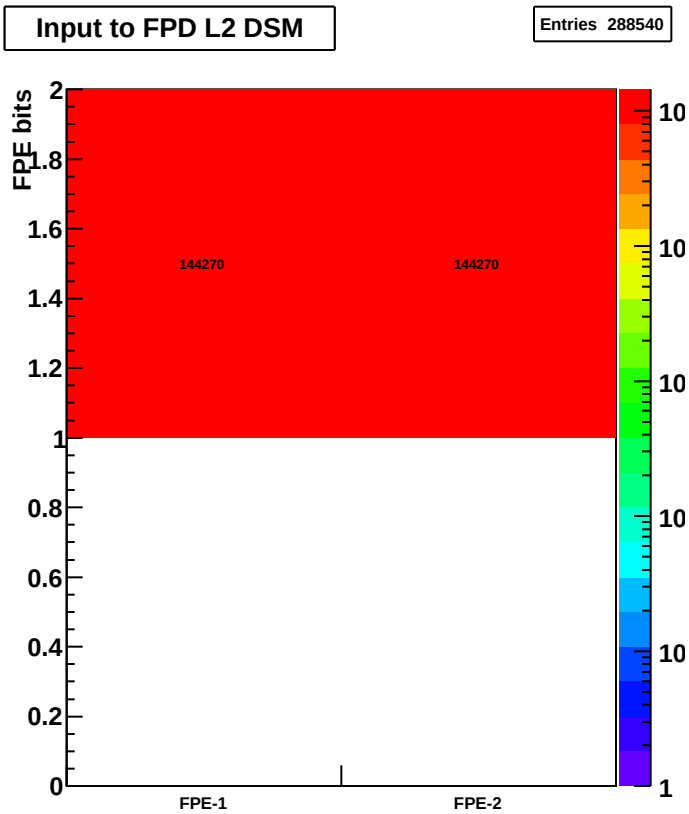

Input to FE002 QT board
Entries4616640
ADC
channel

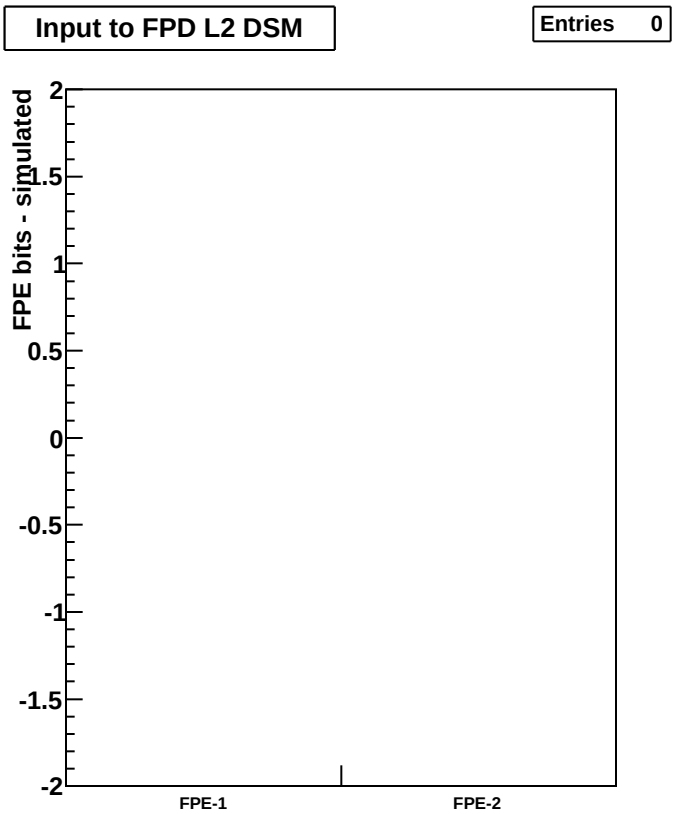

Input to FE003 QT board
Entries4616640
ADC
channel


Input to FE004 QT board
Entries4616640
ADC
channel


Input to FPE L1 DSM
Entries 577080
ADC sum
200
180
160
140
120
100
80
60
40
20
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 501893
ADC sum - simulated
200
150
100
50
0
-50
-100
-150
-200
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPD L2 DSM
Entries 288540
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
144270
144270
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