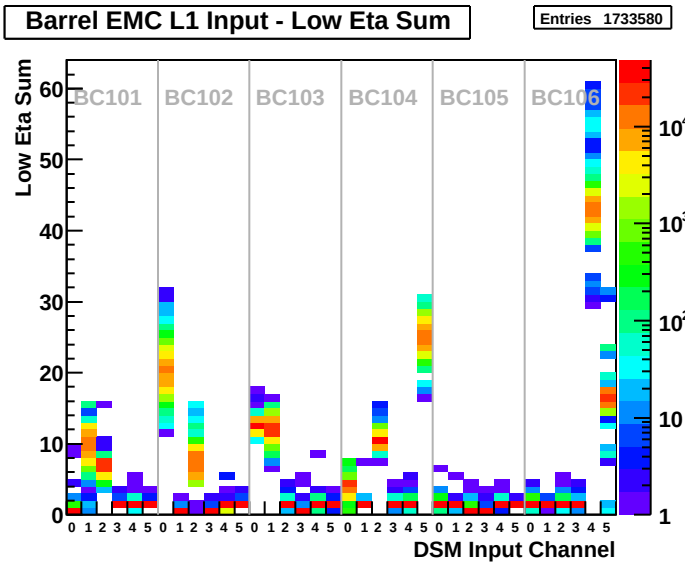
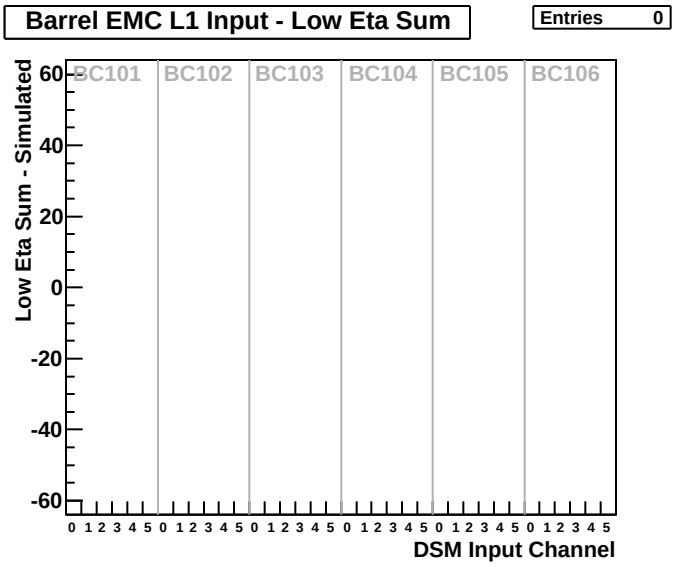
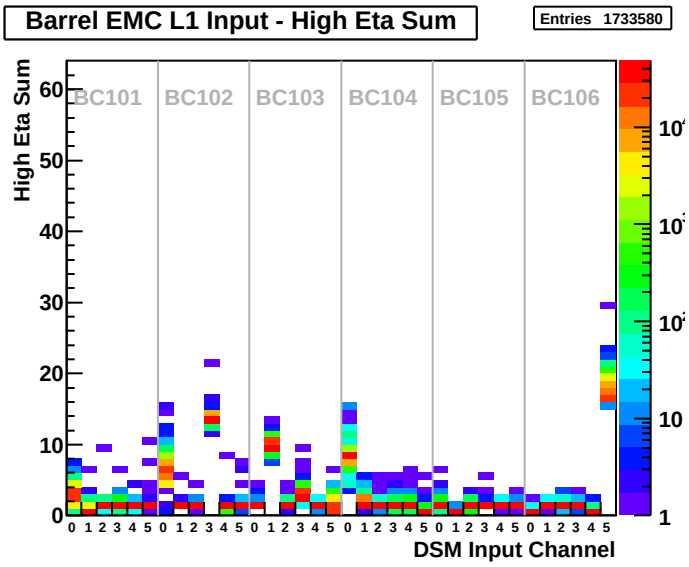
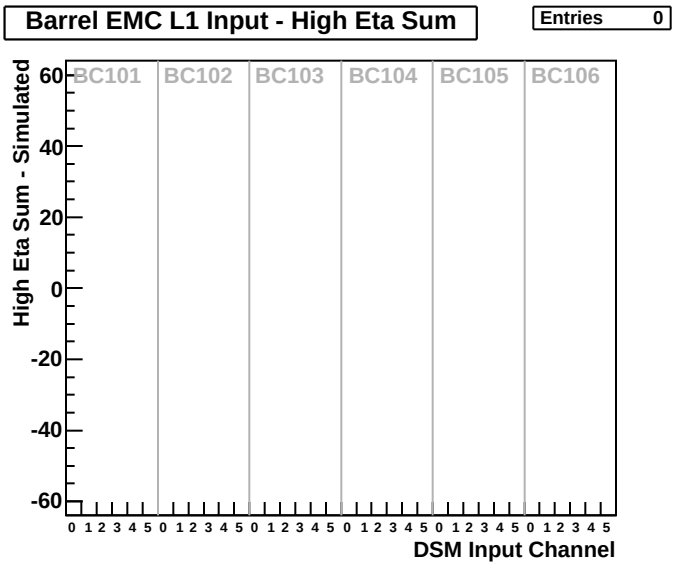
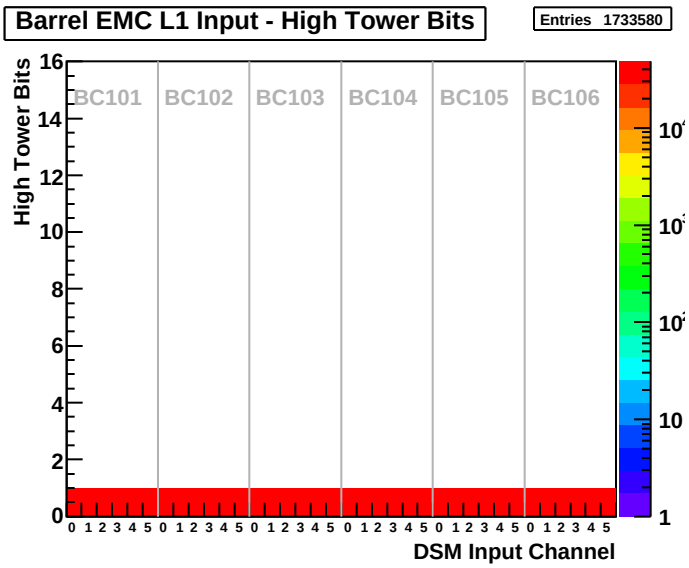
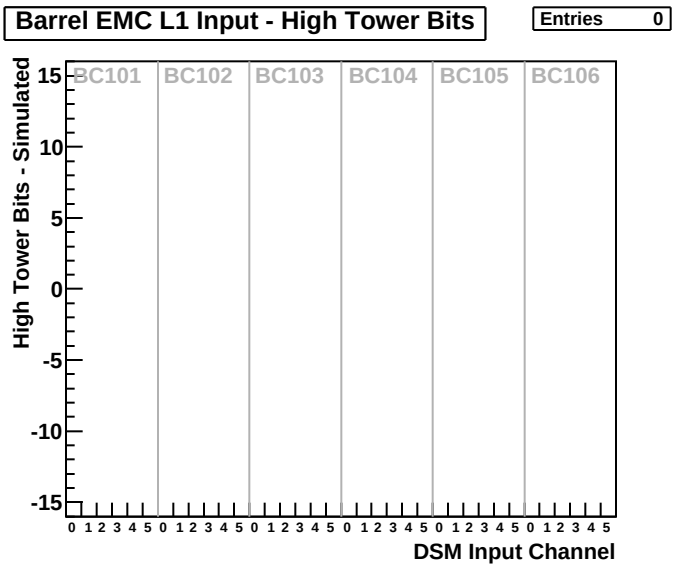

Barrel EMC L1 Input - Low Eta Sum
Entries 1733580
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

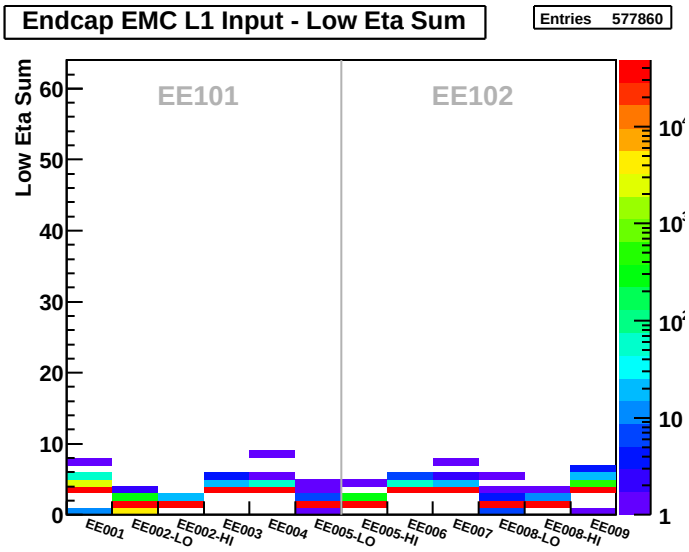

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

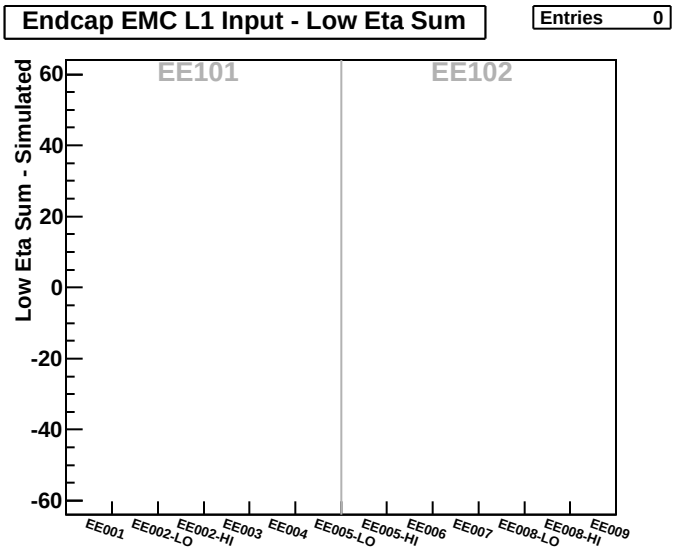

Barrel EMC L1 Input - High Eta Sum
Entries 1733580
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

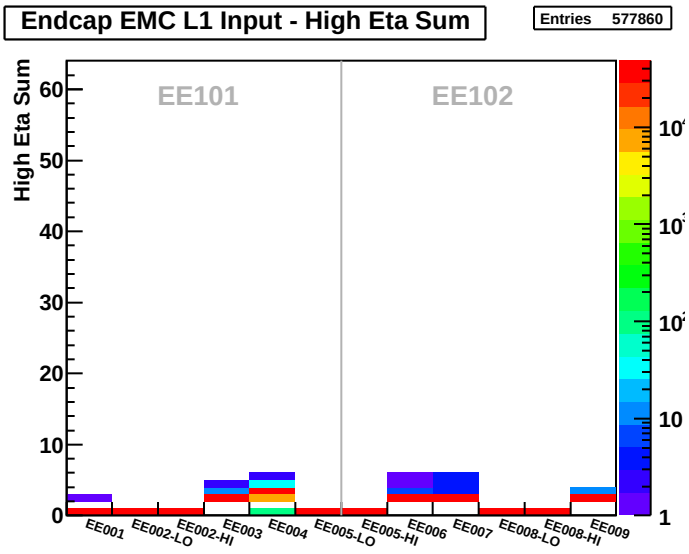

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

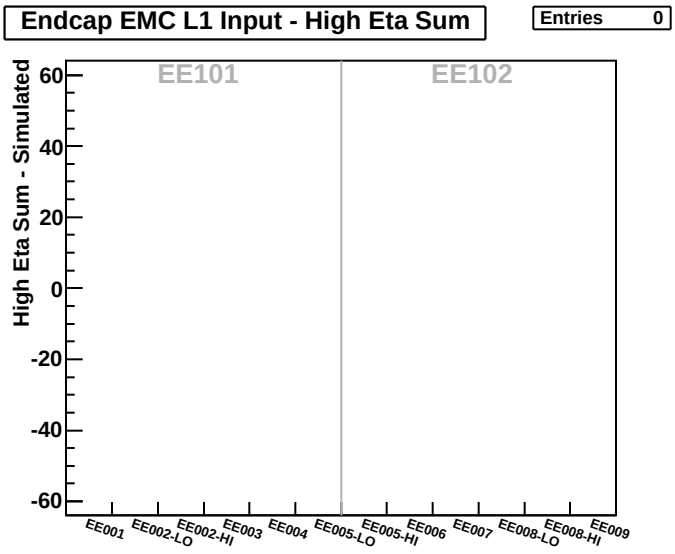

Barrel EMC L1 Input - High Tower Bits
Entries 1733580
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

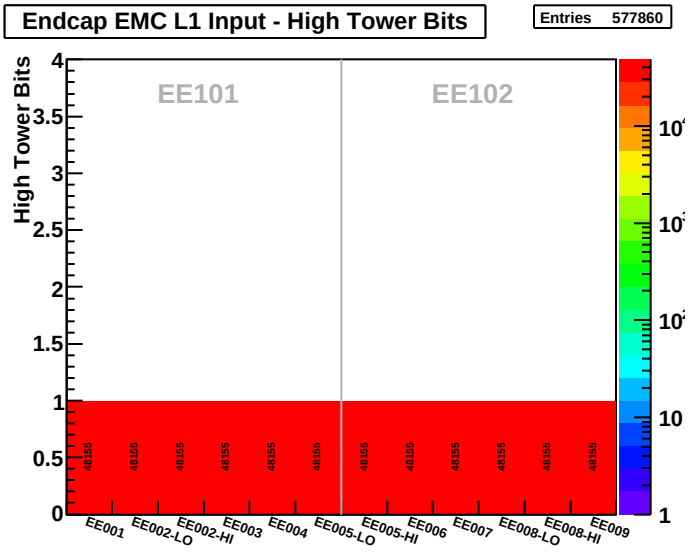

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

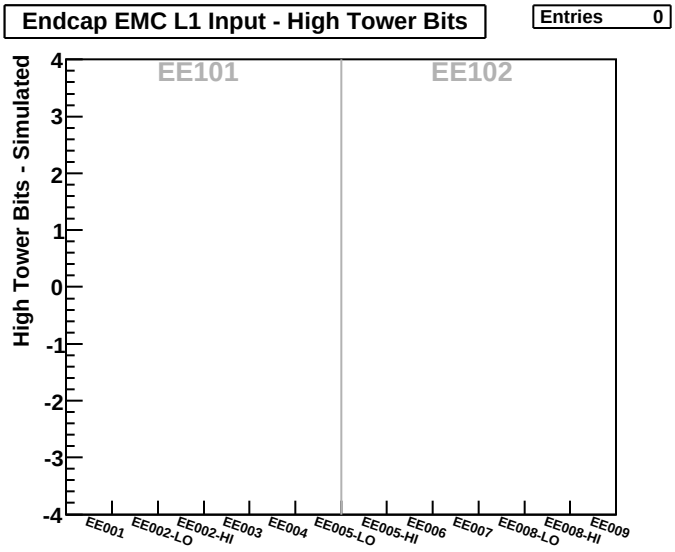

Endcap EMC L1 Input - Low Eta Sum
Entries 577860
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

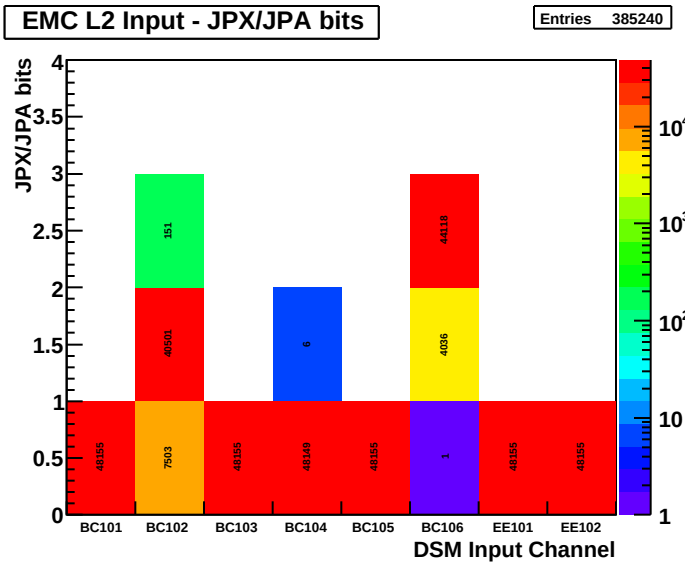

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

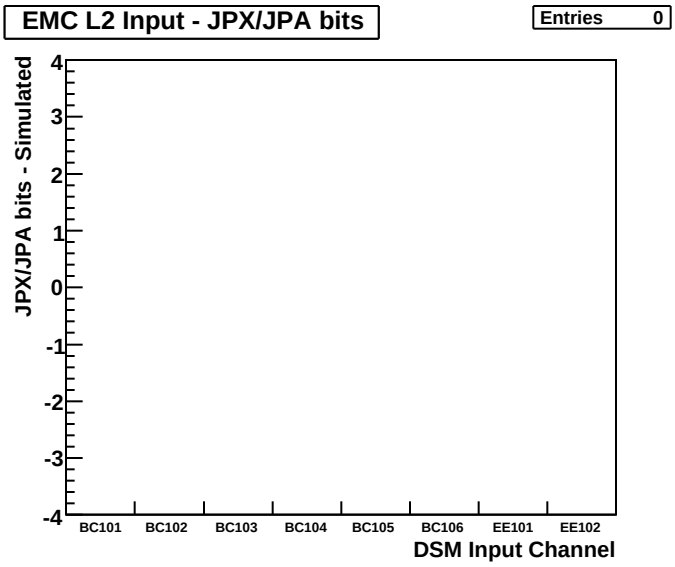

Endcap EMC L1 Input - High Eta Sum
Entries 577860
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

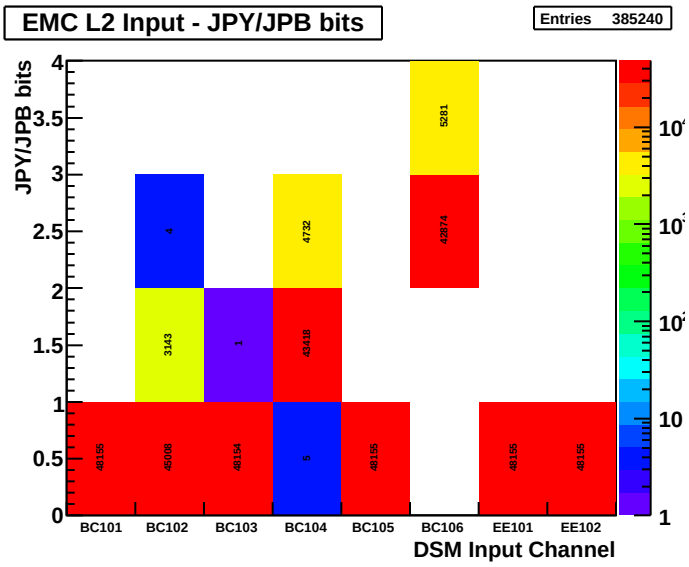

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

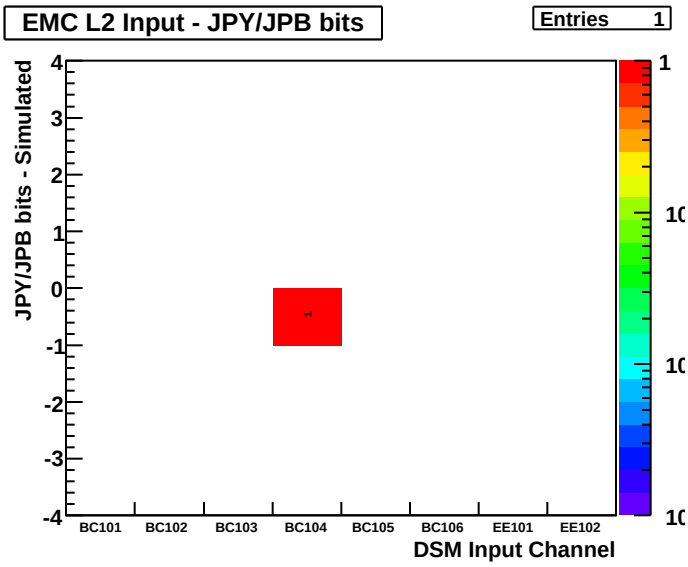

Endcap EMC L1 Input - High Tower Bits
Entries 577860
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

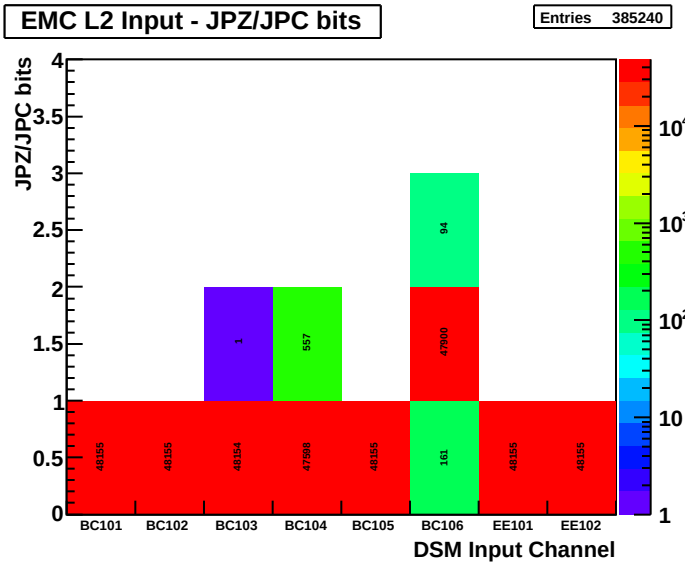

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

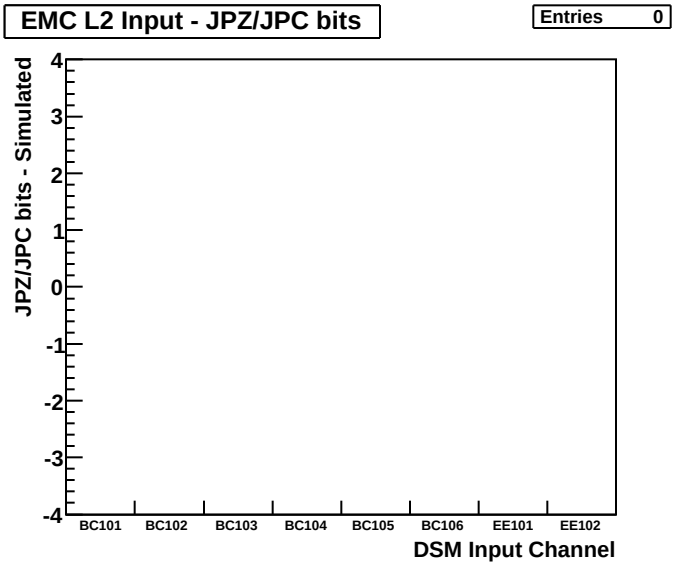

EMC L2 Input - JPX/JPA bits
Entries 385240
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
48155 7503 48155 48149 48155 1 48155 48155
40501 6 4036
151 44118

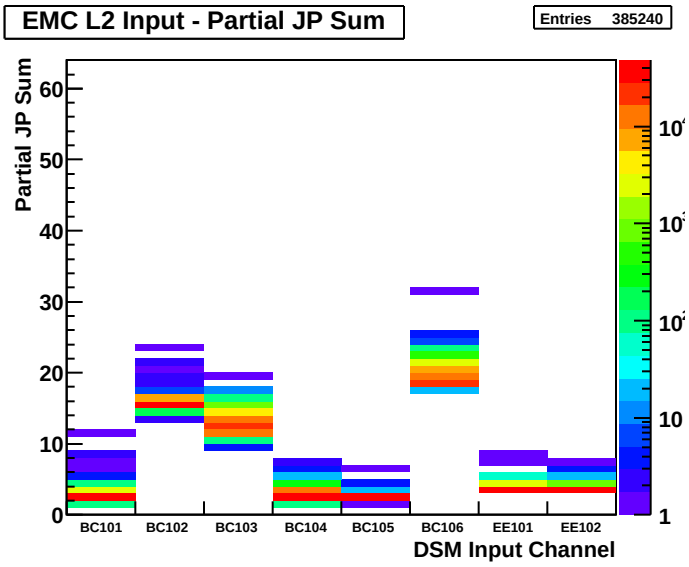

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

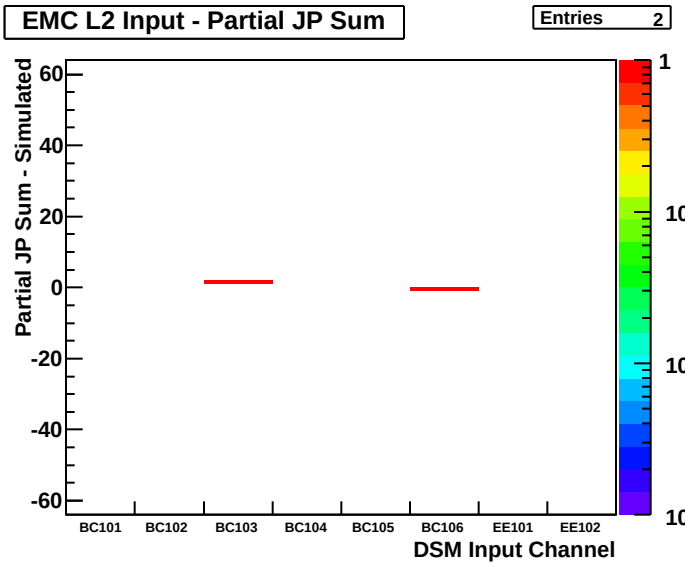

EMC L2 Input - JPY/JPB bits
Entries 385240
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
48155 45008 48154 5 48155 48155 48155
3143 1 43418 42874
4 4732 5281

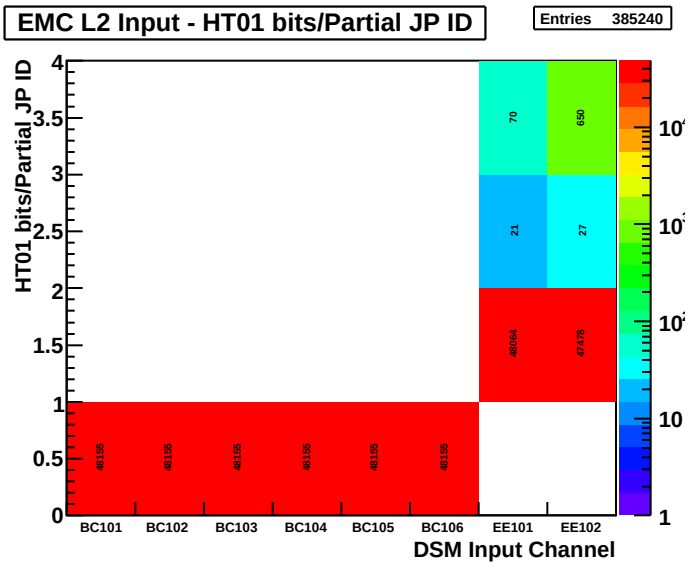

EMC L2 Input - JPY/JPB bits
Entries 1
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

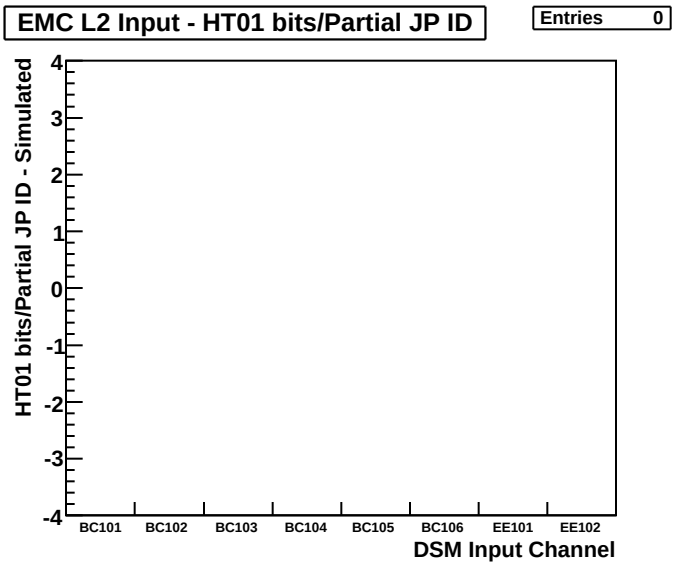

EMC L2 Input - JPZ/JPC bits
Entries 385240
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
48155 48155 48154 47598 48155 161 48155 48155
1 557 47900
94

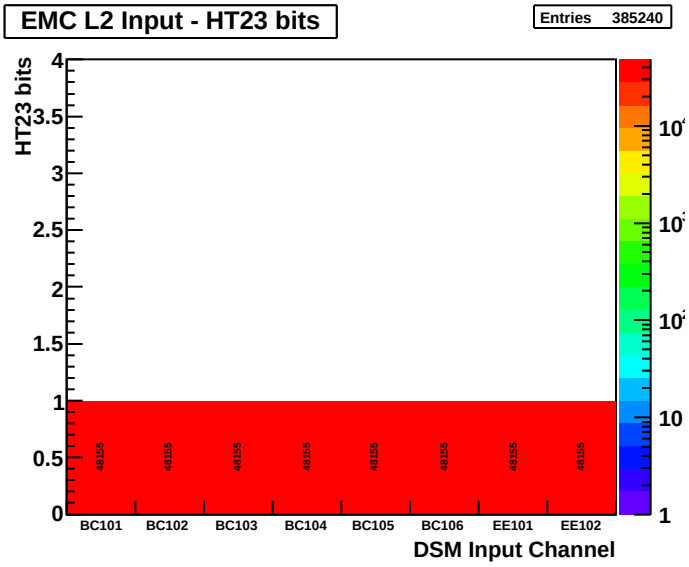

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

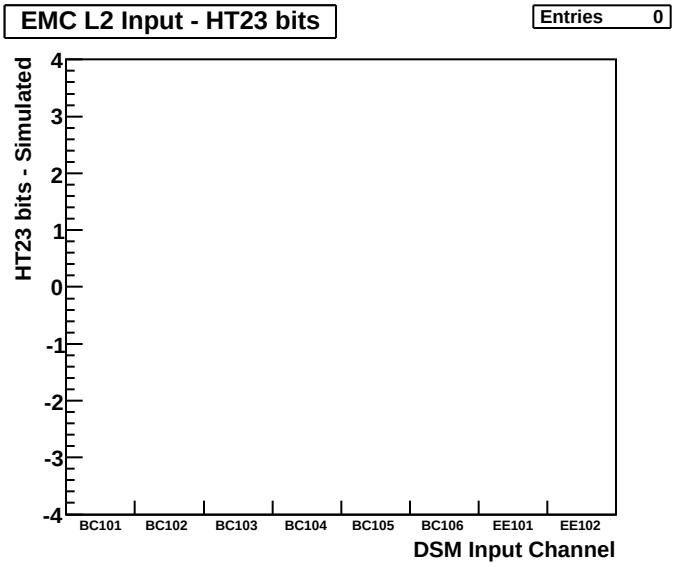

EMC L2 Input - Partial JP Sum
Entries 385240
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

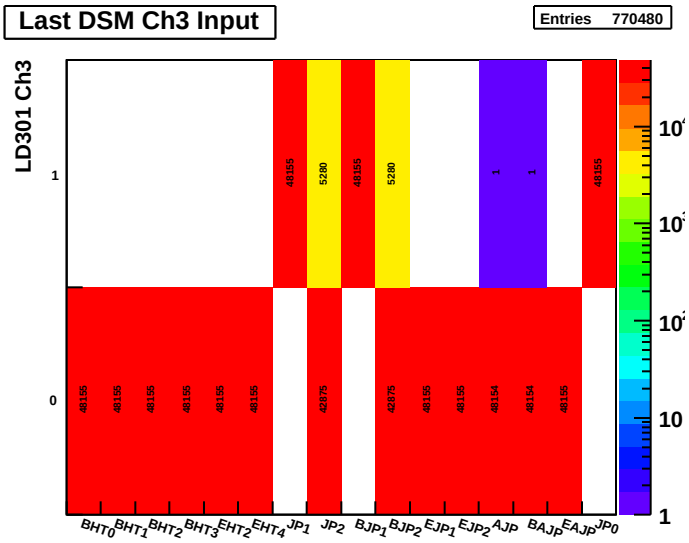

EMC L2 Input - Partial JP Sum
Entries 2
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

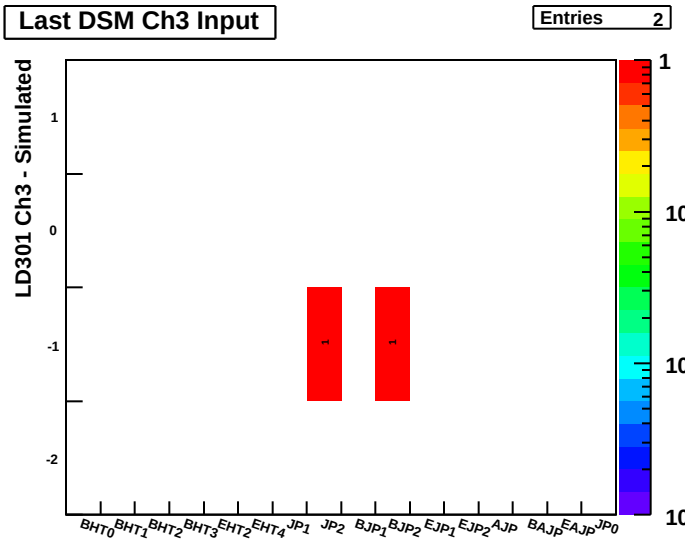

EMC L2 Input - HT01 bits/Partial JP ID
Entries 385240
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

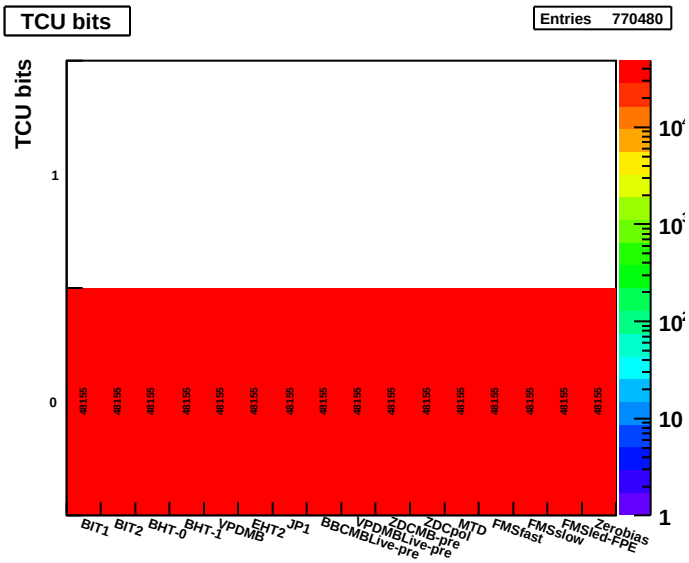

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

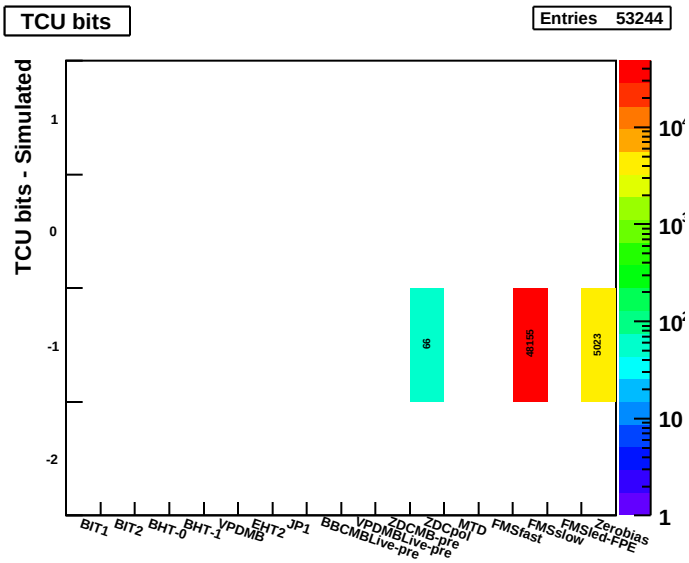

EMC L2 Input - HT23 bits
Entries 385240
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

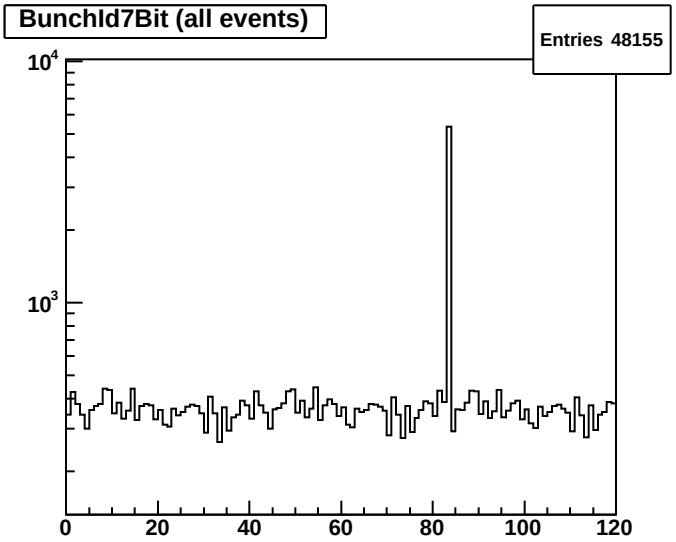

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

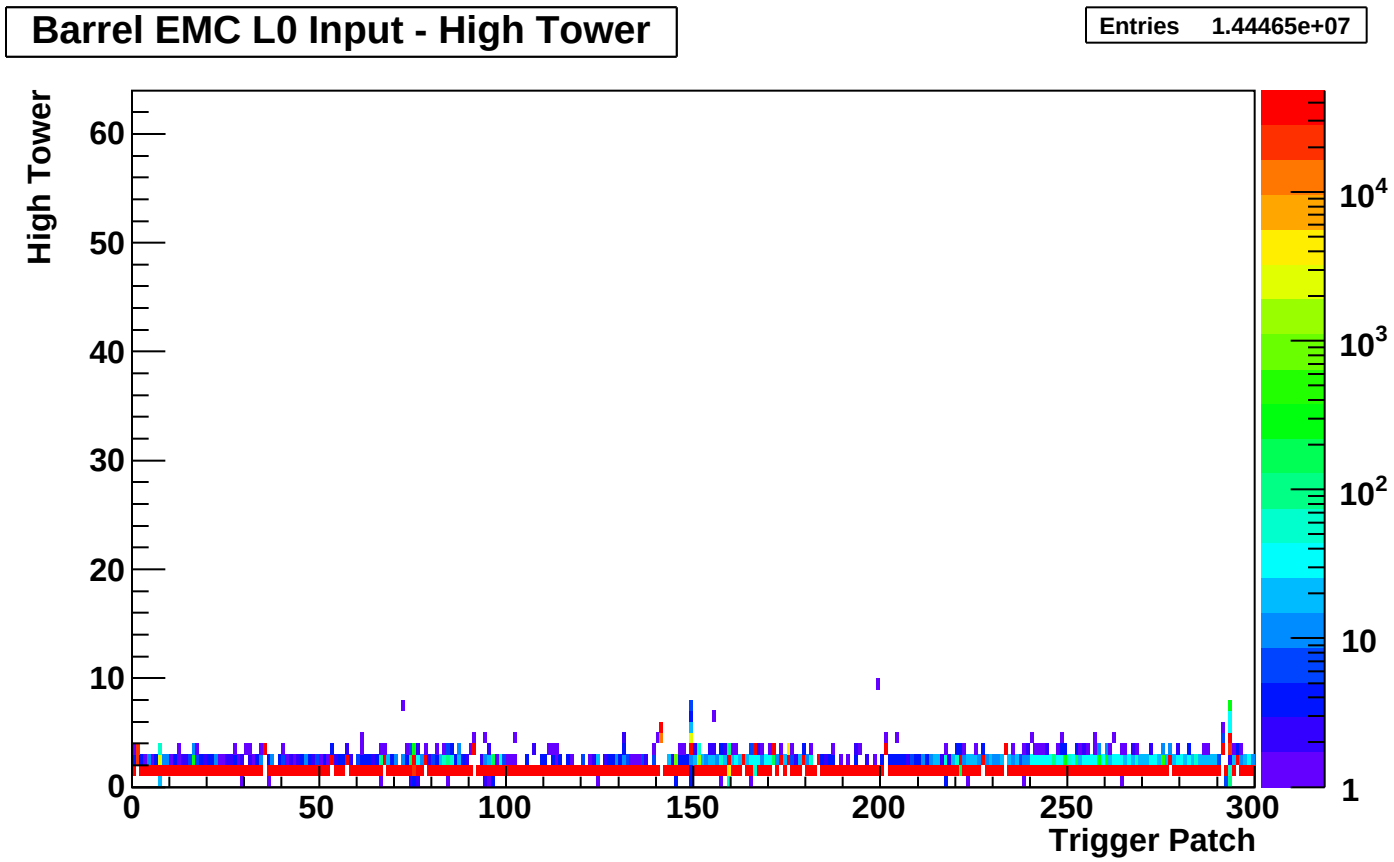

Last DSM Ch3 Input
Entries 770480
LD301 Ch3
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

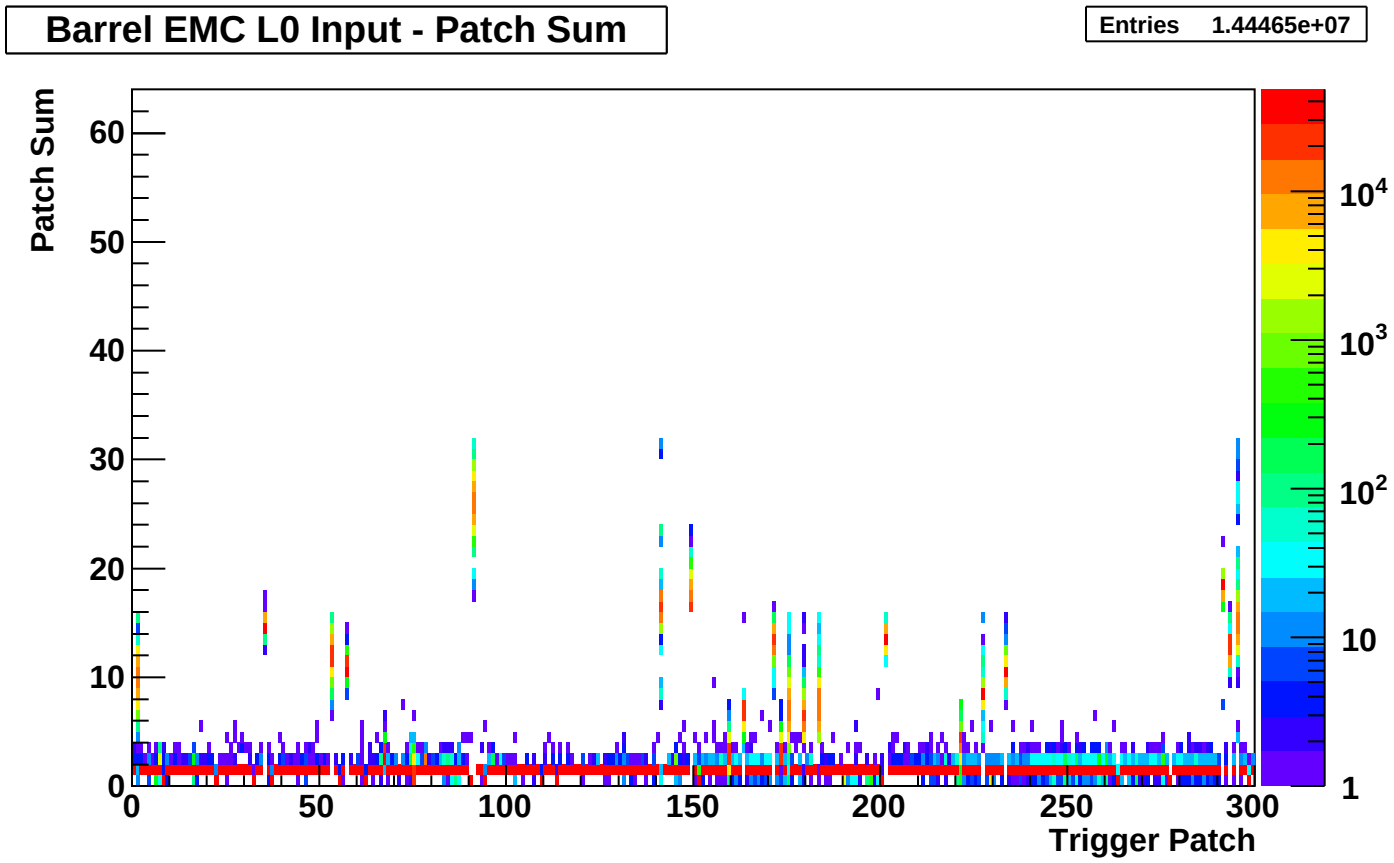

Last DSM Ch3 Input
Entries 2
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

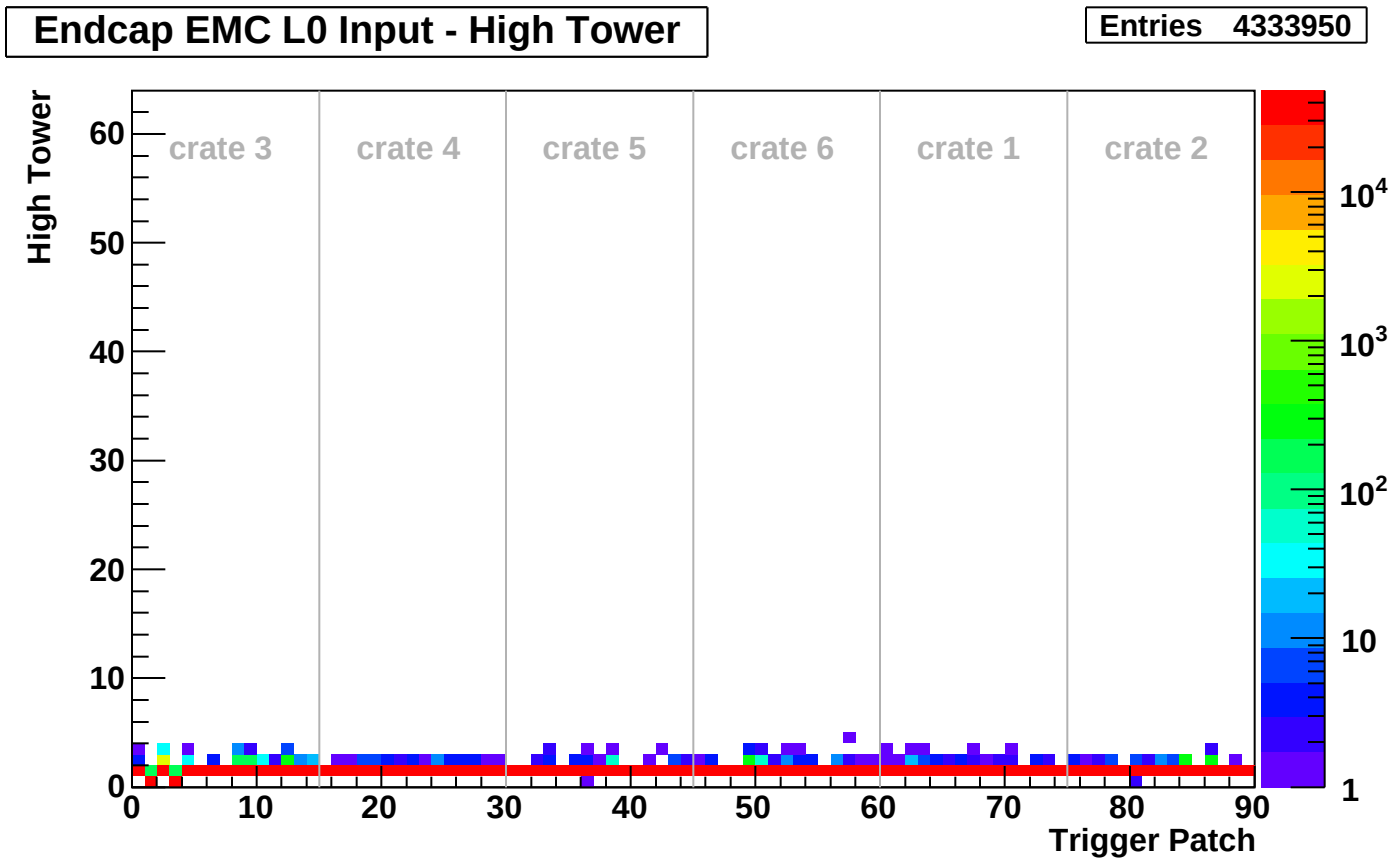

TCU bits
Entries 770480
TCU bits
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

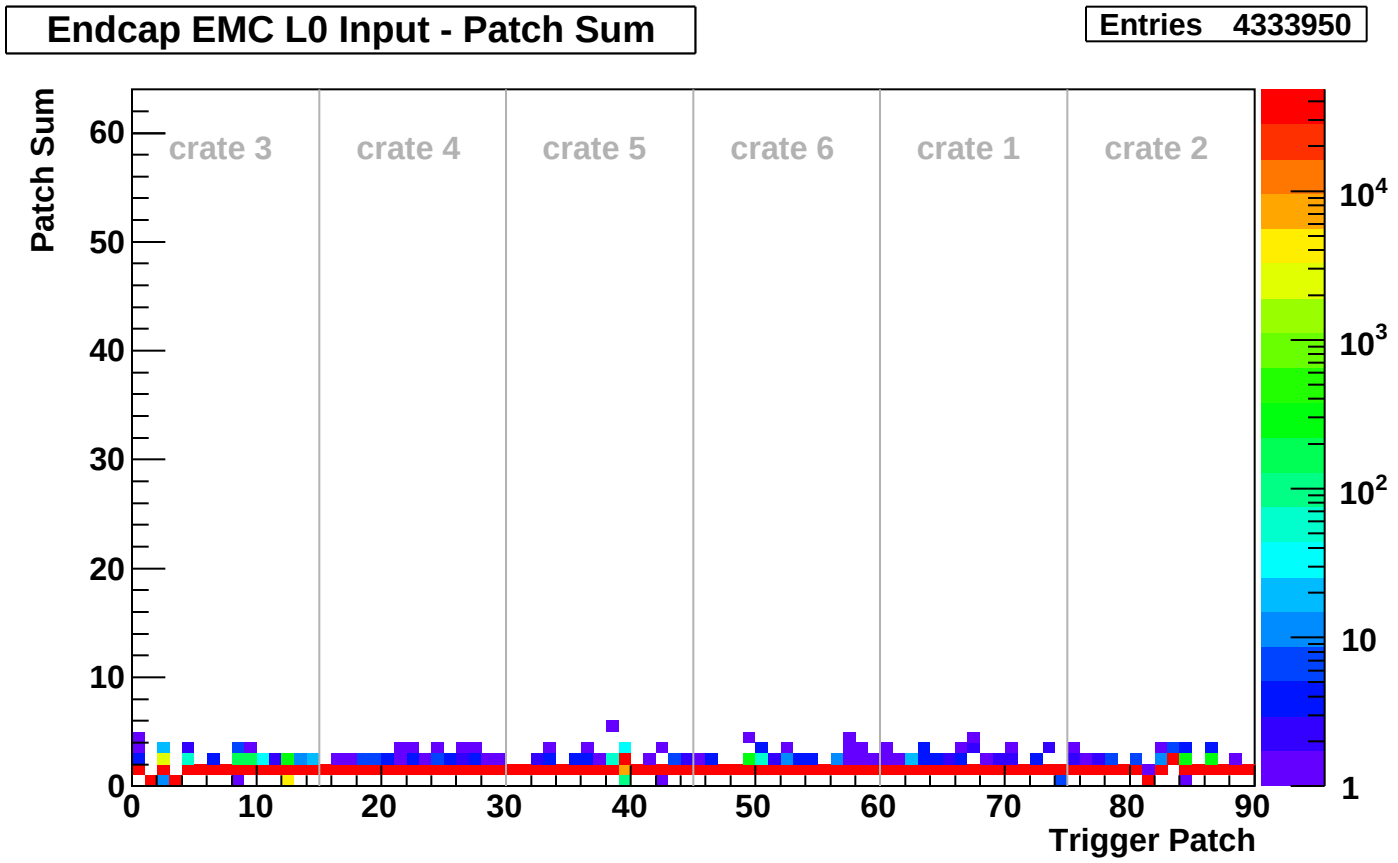

TCU bits
Entries 53244
TCU bits - Simulated
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

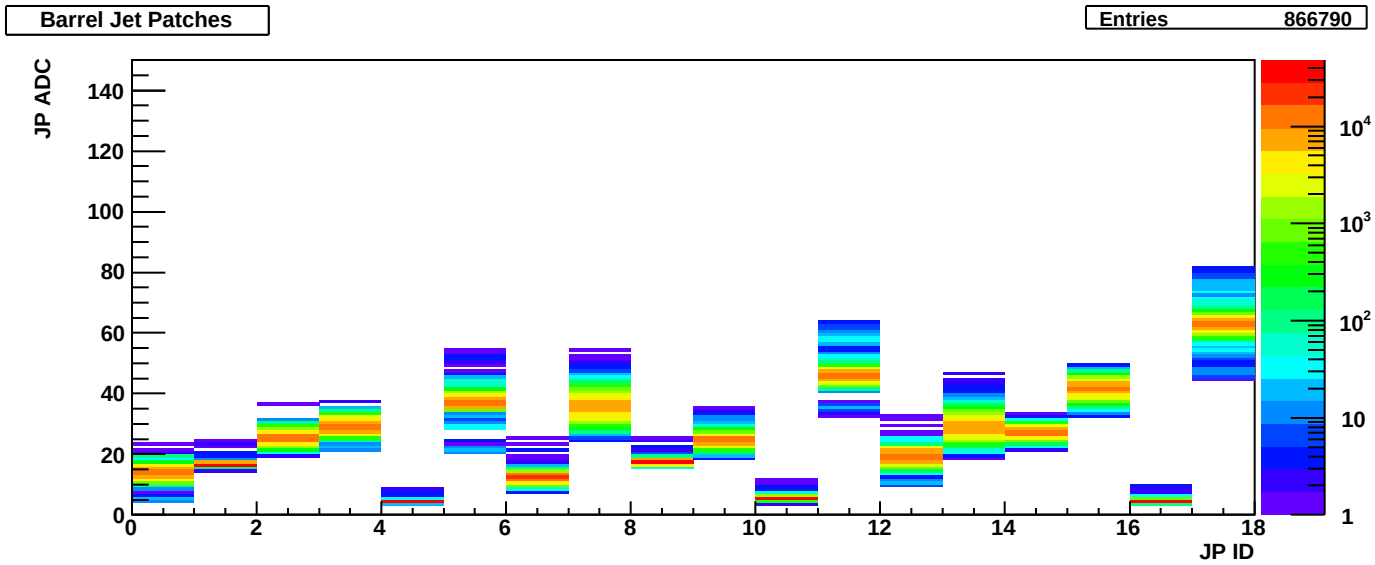

BunchId7Bit (all events)
Entries 48155
0 20 40 60 80 100 120

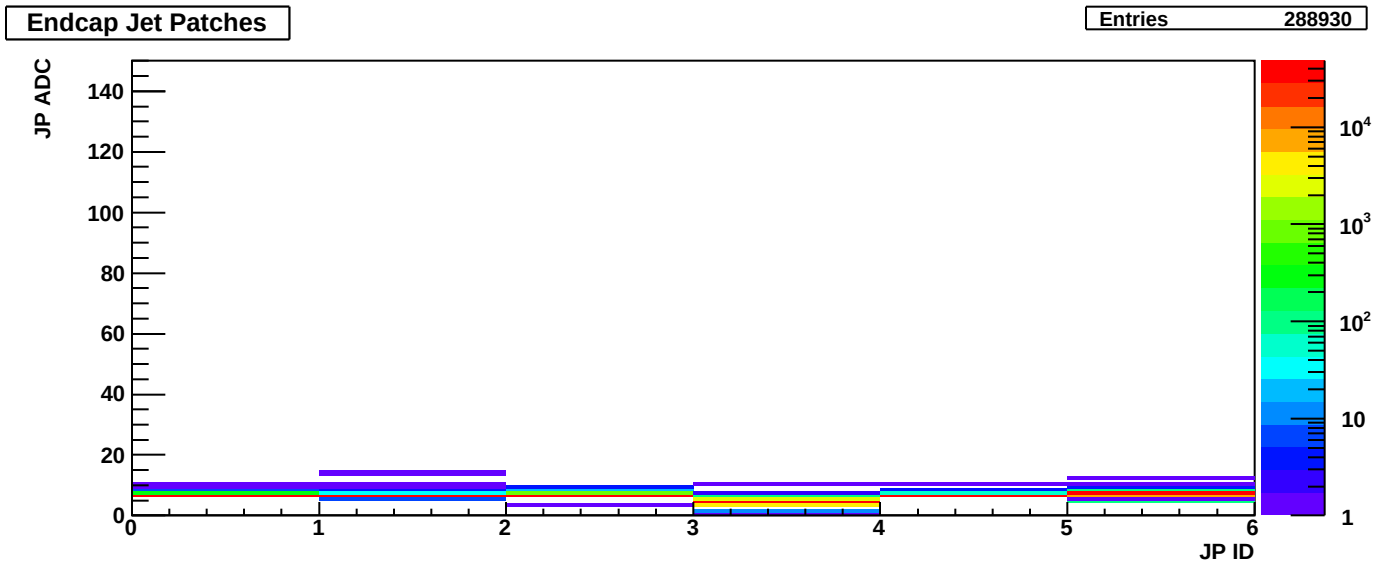

Barrel EMC L0 Input - High Tower
Entries 1.44465e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

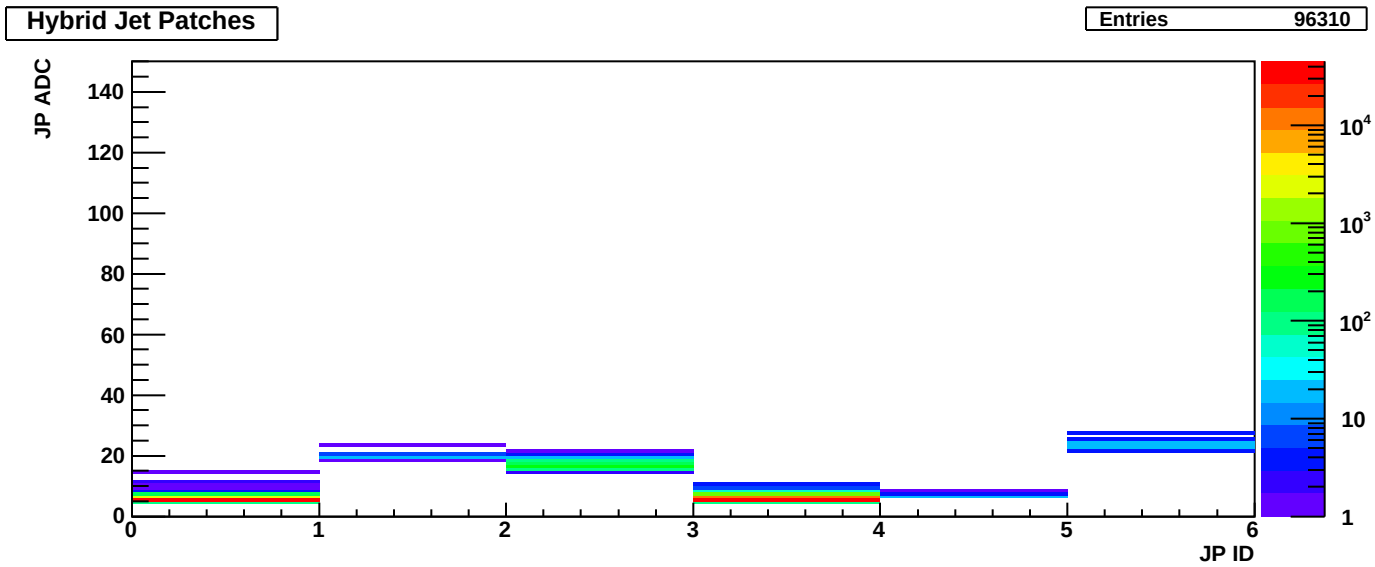

Barrel EMC L0 Input - Patch Sum
Entries 1.44465e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

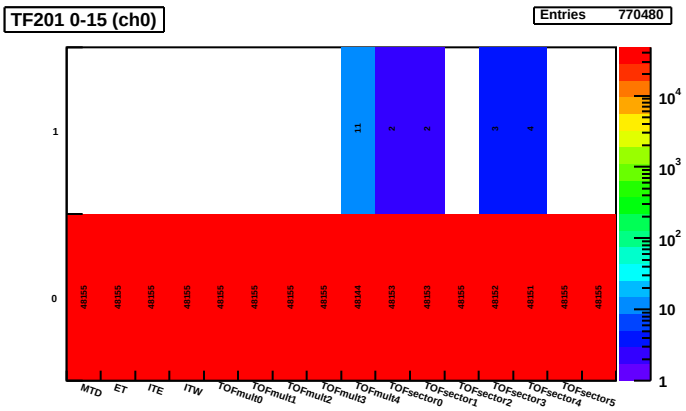

Endcap EMC L0 Input - High Tower
Entries 4333950
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

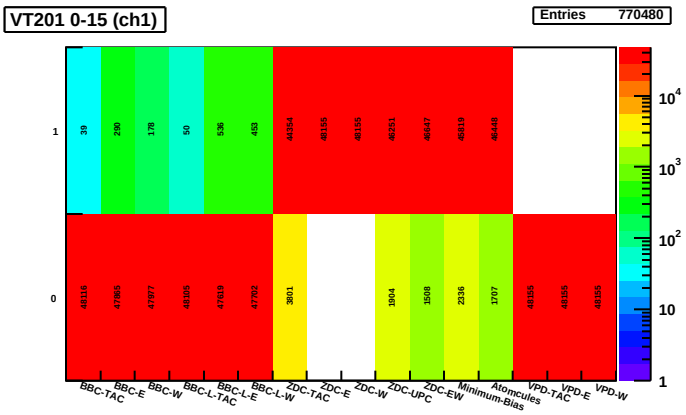

Endcap EMC L0 Input - Patch Sum
Entries 4333950
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

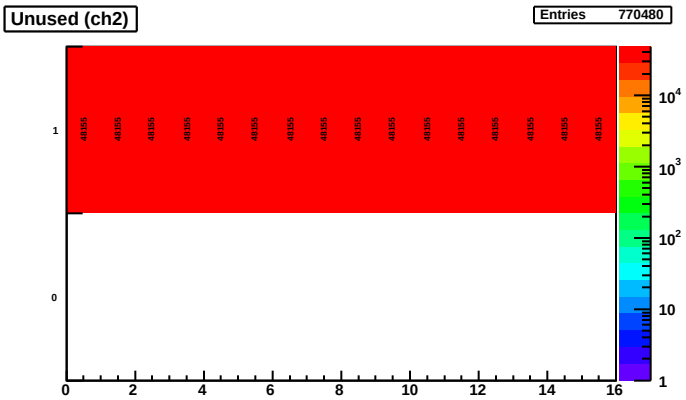

Barrel Jet Patches
Entries 866790
JP ADC
JP ID

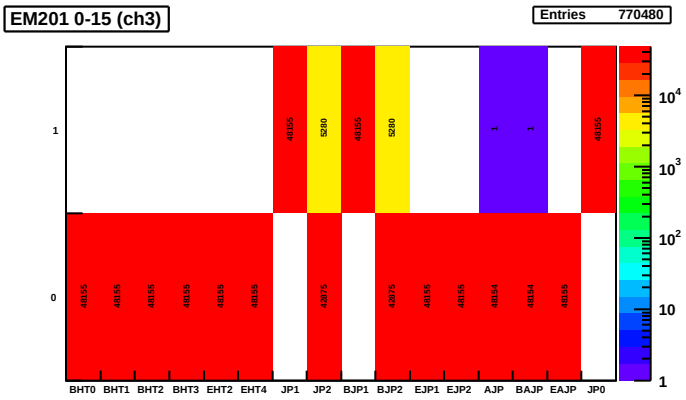

Endcap Jet Patches
Entries 288930
JP ADC
JP ID

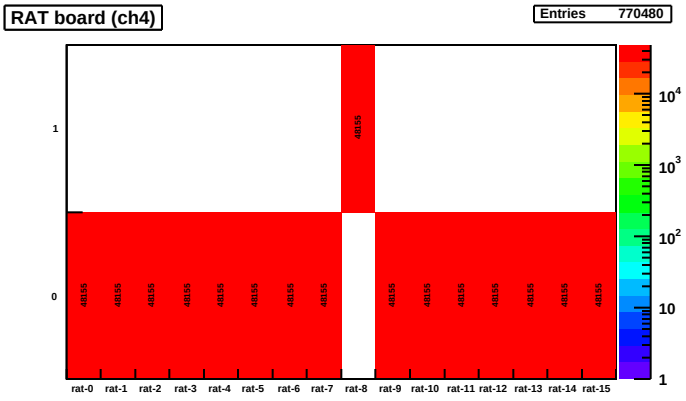

Hybrid Jet Patches
Entries 96310
JP ADC
JP ID

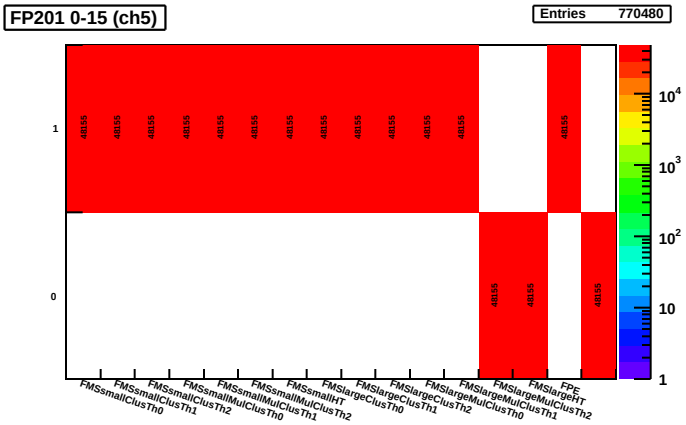

TF201 0-15 (ch0)
Entries 770480
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

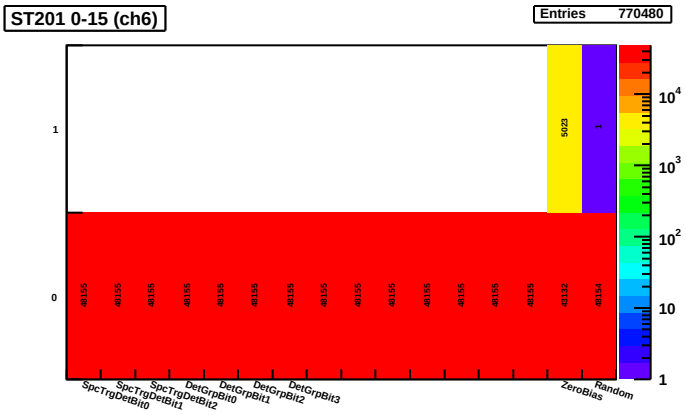

VT201 0-15 (ch1)
Entries 770480
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

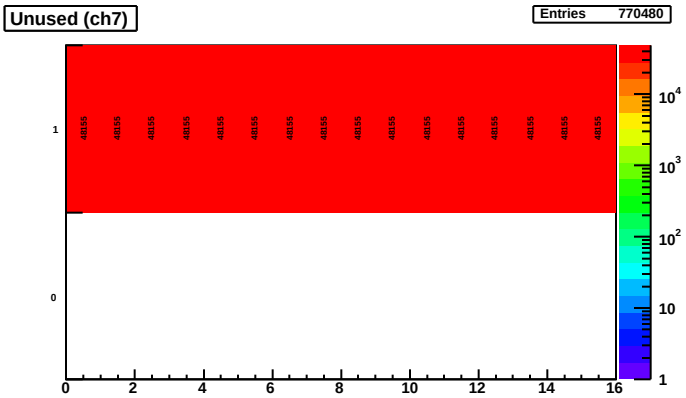

Unused (ch2)
Entries 770480

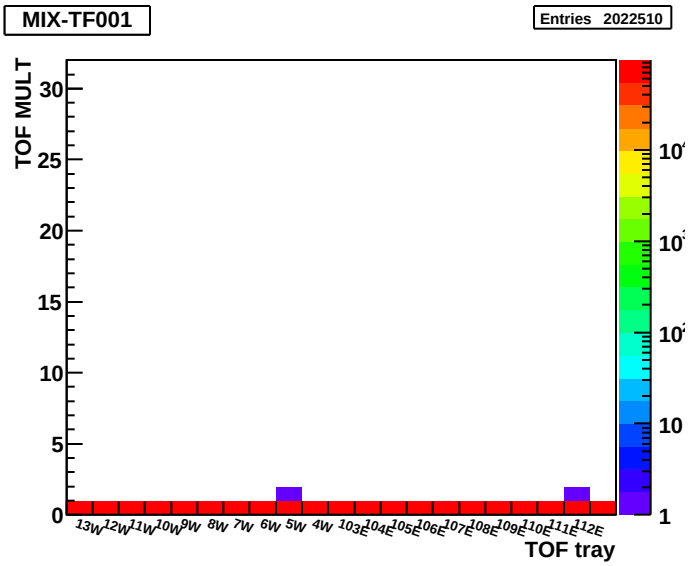

EM201 0-15 (ch3)
Entries 770480
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

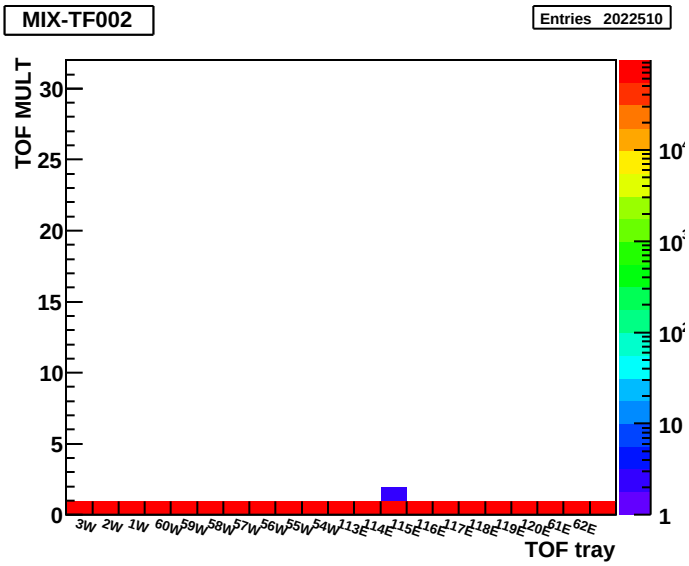

RAT board (ch4)
Entries 770480
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

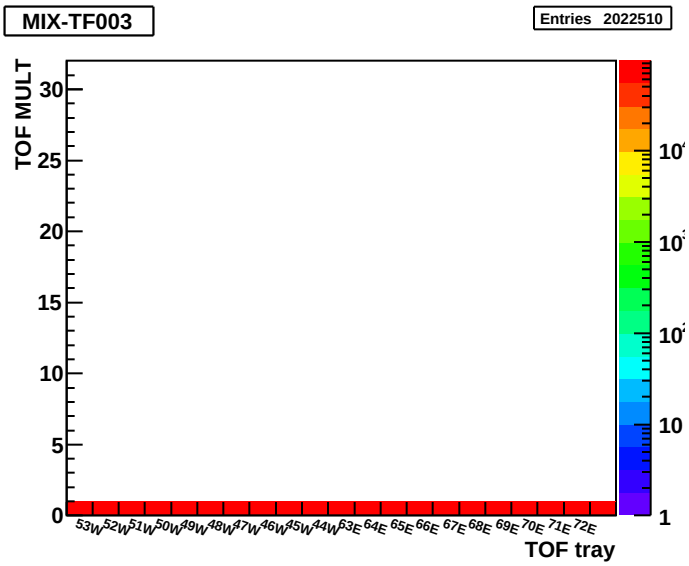

FP201 0-15 (ch5)
Entries 770480
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

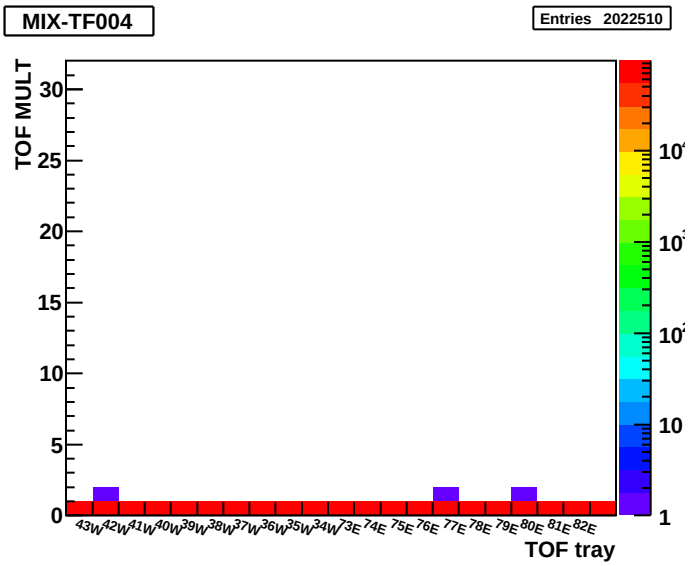

ST201 0-15 (ch6)
Entries 770480
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

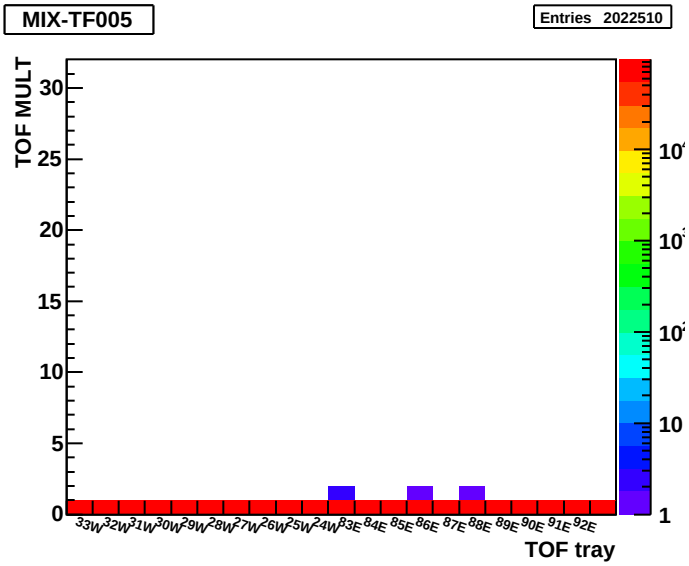

Unused (ch7)
Entries 770480

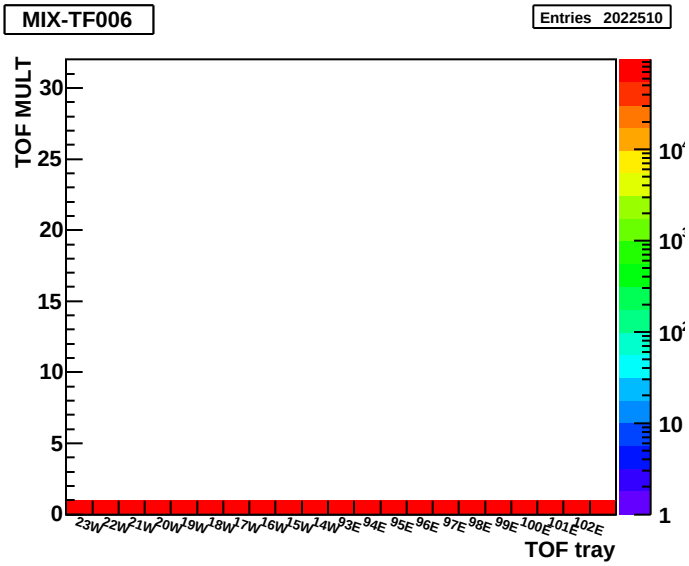

MIX-TF001
Entries 2022510
TOF MULT
TOF tray

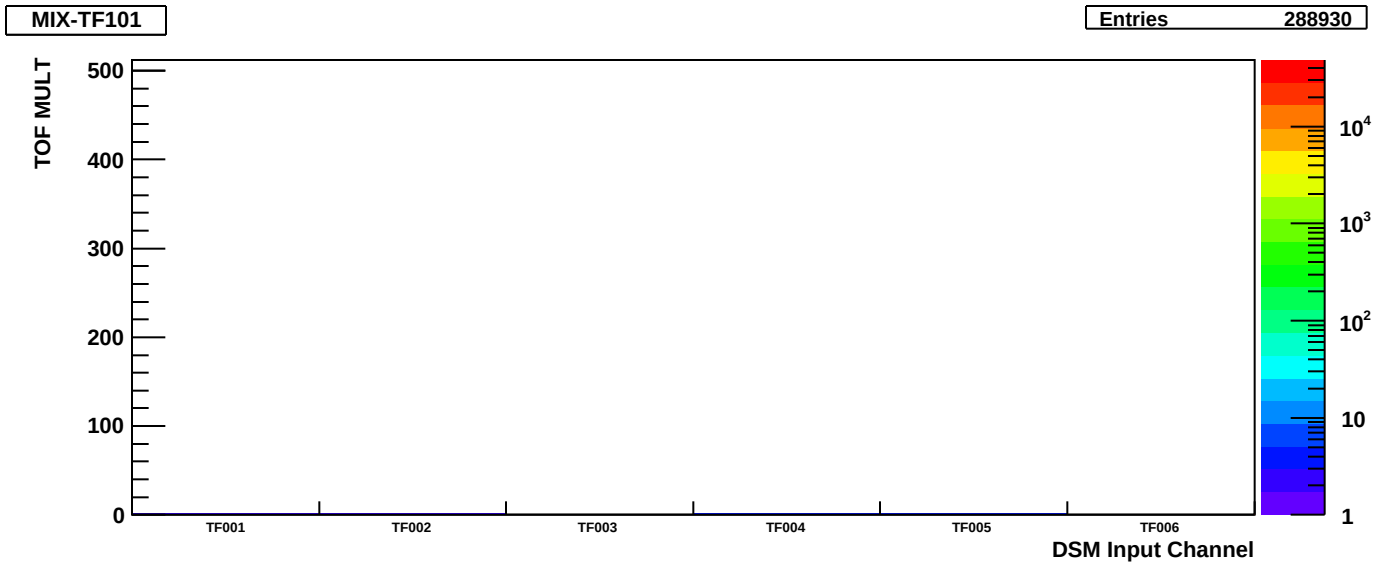

MIX-TF002
Entries 2022510
TOF MULT
TOF tray

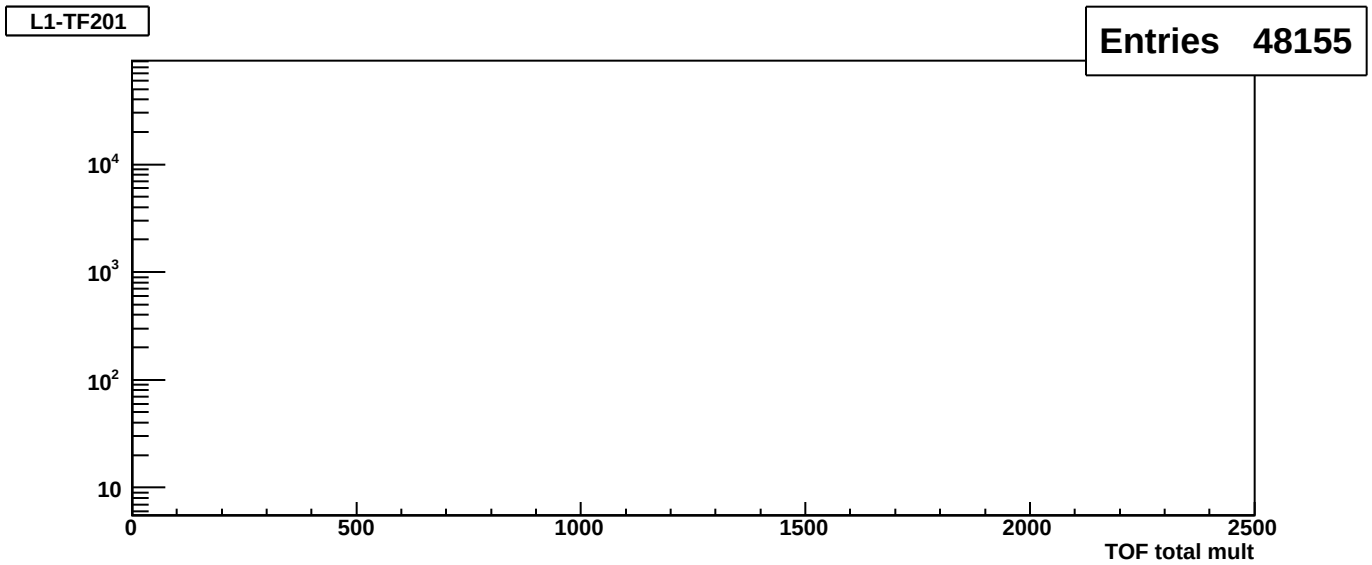

MIX-TF003
Entries 2022510
TOF MULT
TOF tray

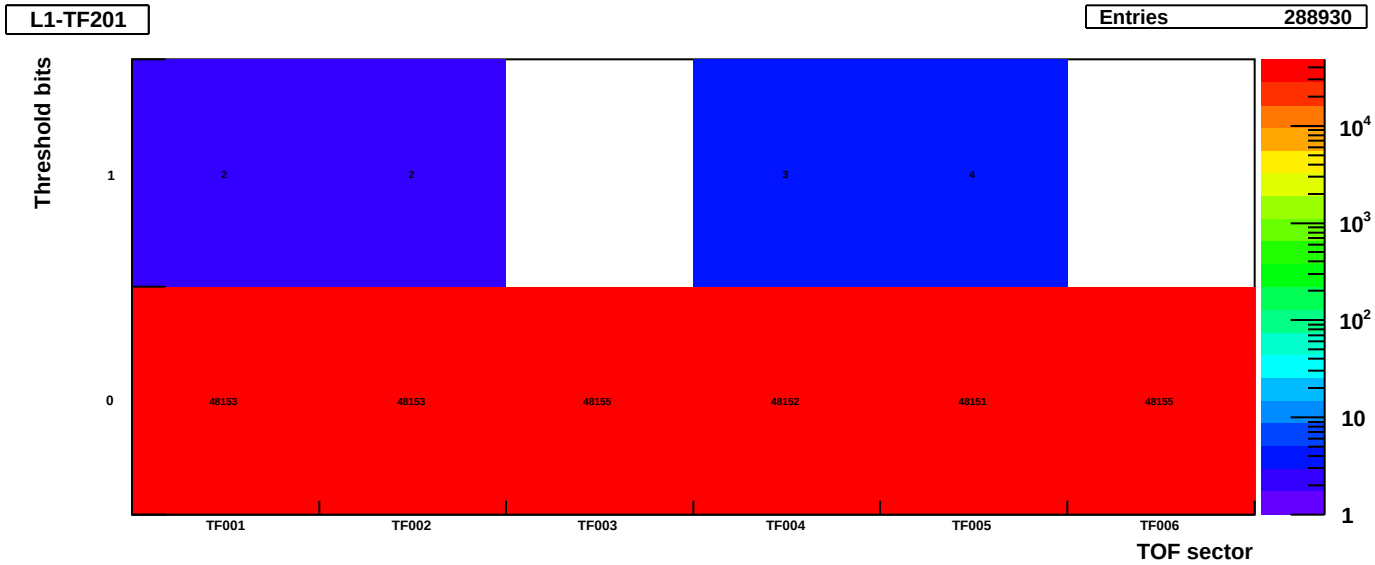

MIX-TF004
Entries 2022510
TOF MULT
TOF tray

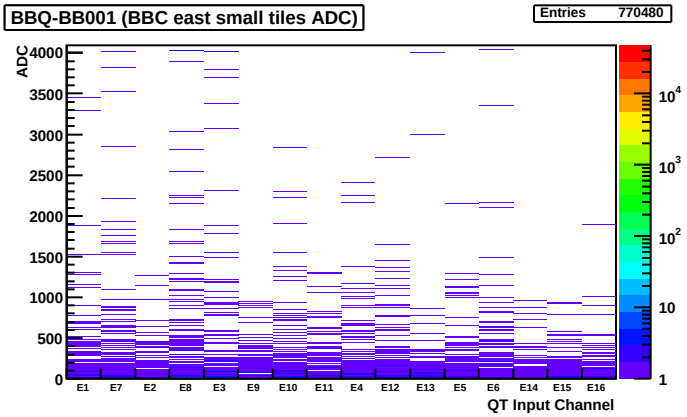

MIX-TF005
Entries 2022510
TOF MULT
TOF tray

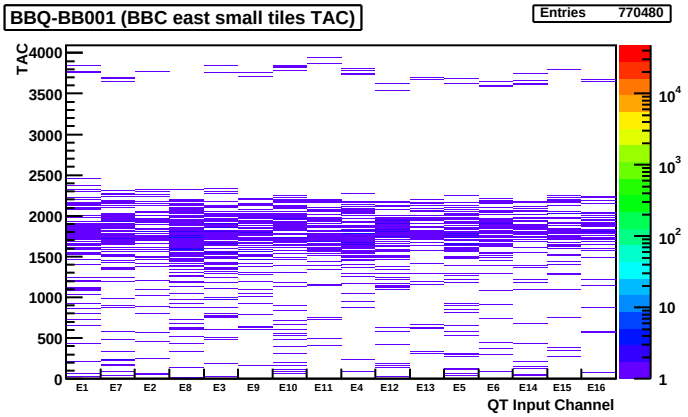

MIX-TF006
Entries 2022510
TOF MULT
TOF tray

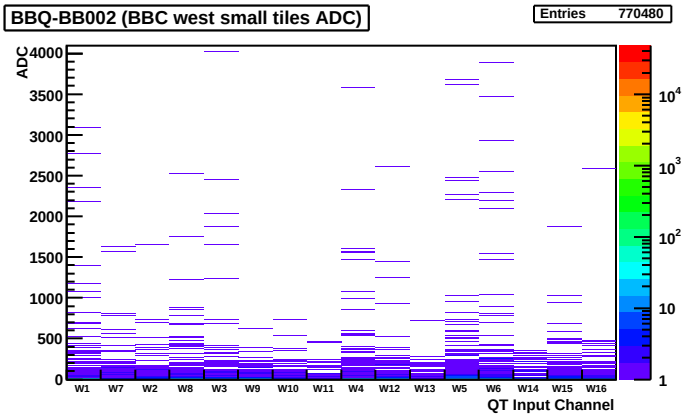

MIX-TF101
Entries 288930
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

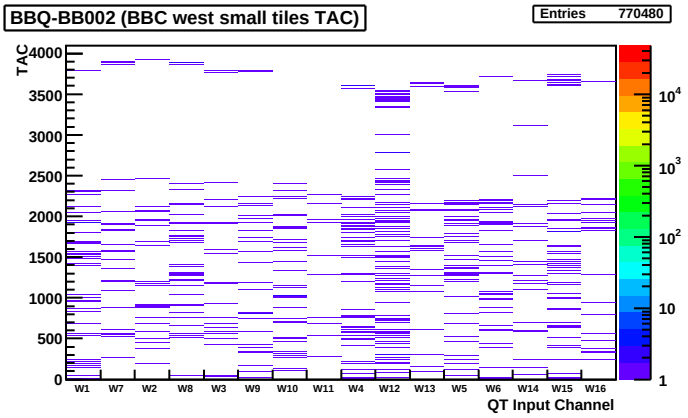

L1-TF201
Entries 48155
10^4
10^3
10^2
10
0
500
1000
1500
2000
2500
TOF total mult

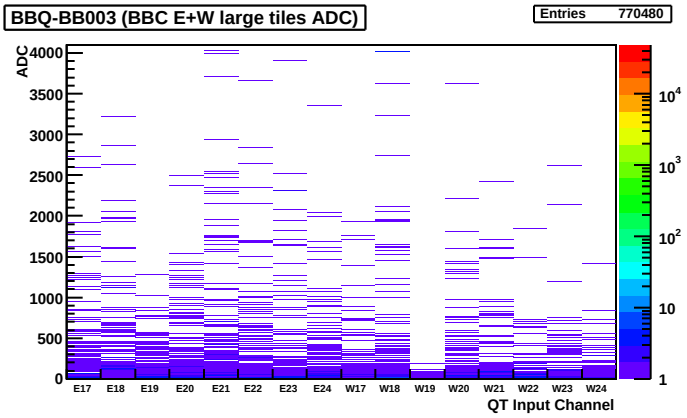

L1-TF201
Entries 288930
Threshold bits
1
0
2
2
3
4
48153
48153
48155
48152
48151
48155
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3
10^2
10
1

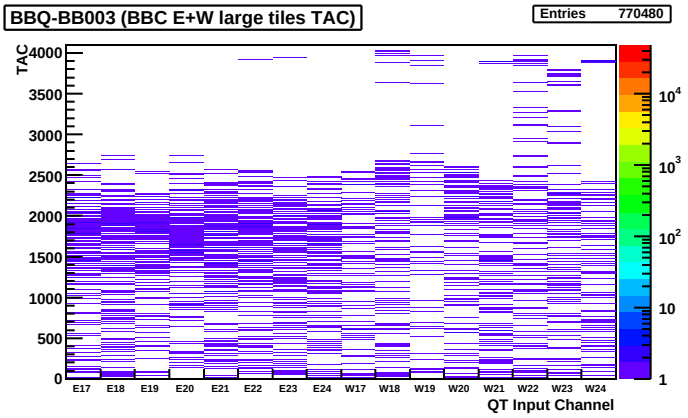

BBQ-BB001 (BBC east small tiles ADC)
Entries 770480
ADC
QT Input Channel

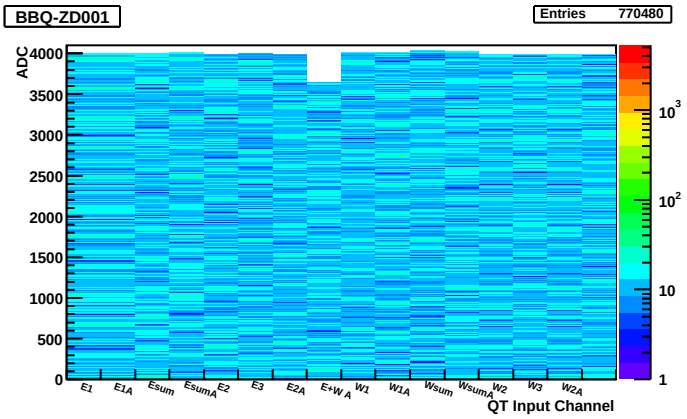

BBQ-BB001 (BBC east small tiles TAC)
Entries 770480
TAC
QT Input Channel

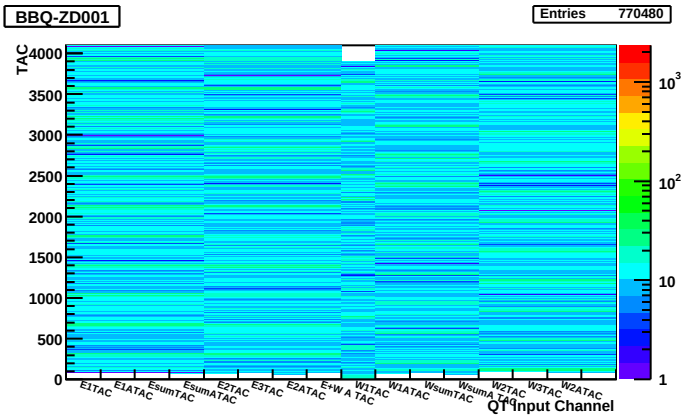

BBQ-BB002 (BBC west small tiles ADC)
Entries 770480
ADC
QT Input Channel

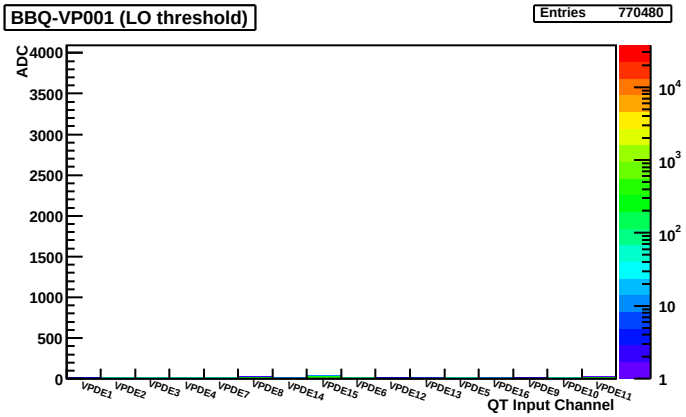

BBQ-BB002 (BBC west small tiles TAC)
Entries 770480
TAC
QT Input Channel

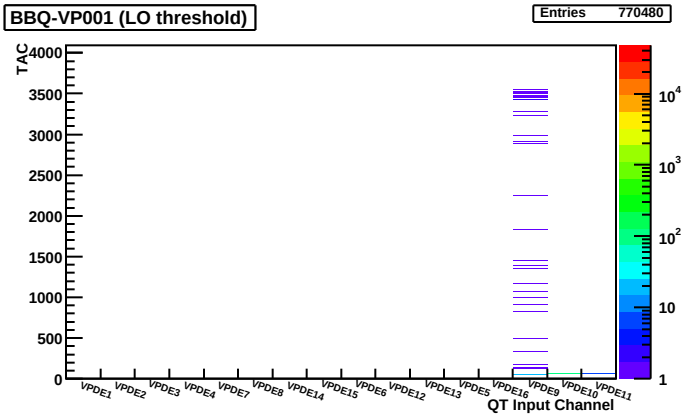

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 770480
ADC
QT Input Channel

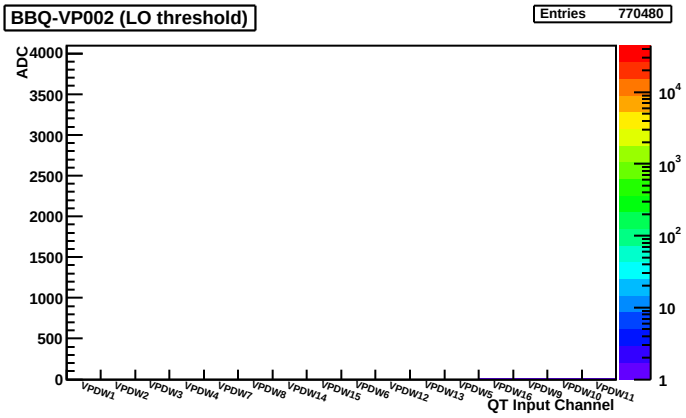

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 770480
TAC
QT Input Channel

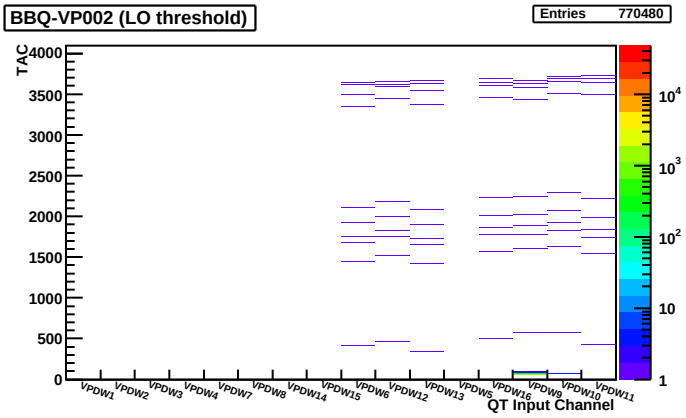

BBQ-ZD001
Entries 770480
ADC
QT Input Channel

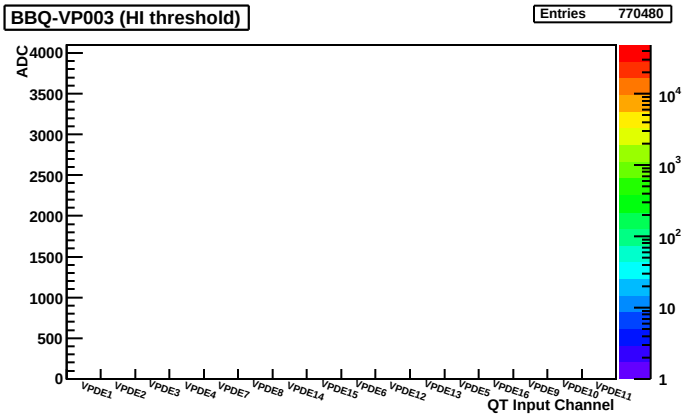

BBQ-ZD001
Entries 770480
TAC
QT Input Channel

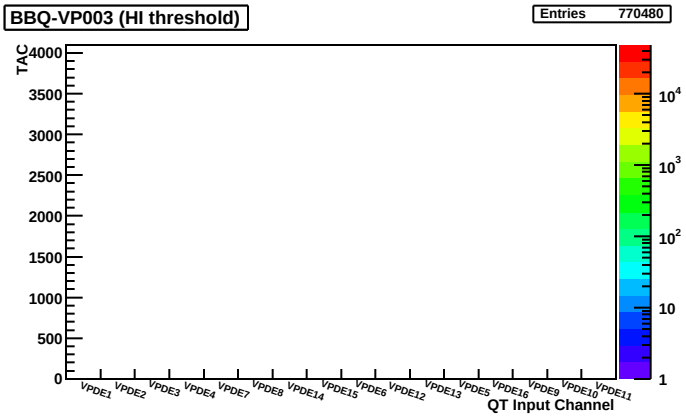

BBQ-VP001 (LO threshold)
Entries 770480
ADC
QT Input Channel

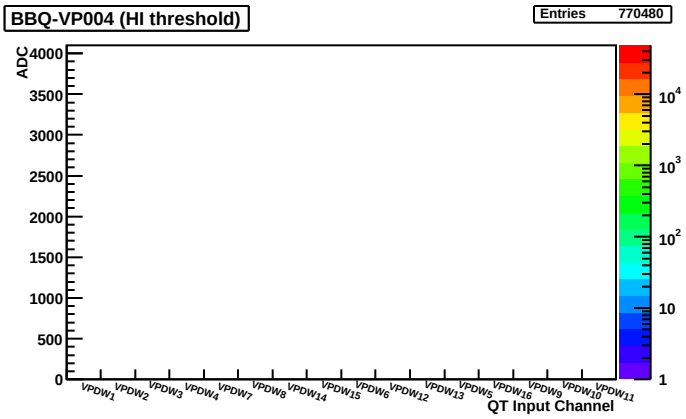

BBQ-VP001 (LO threshold)
Entries 770480
TAC
QT Input Channel

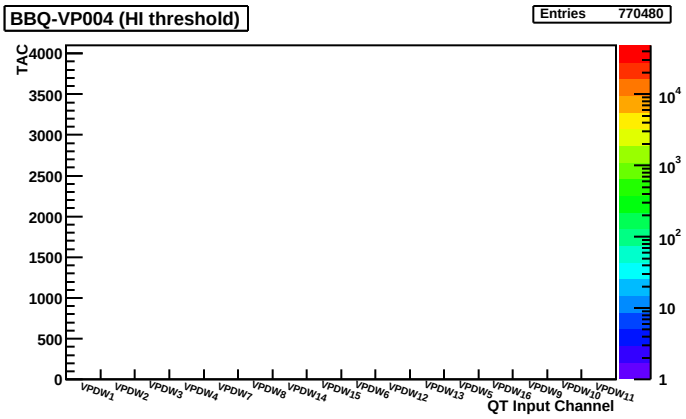

BBQ-VP002 (LO threshold)
Entries 770480
ADC
QT Input Channel

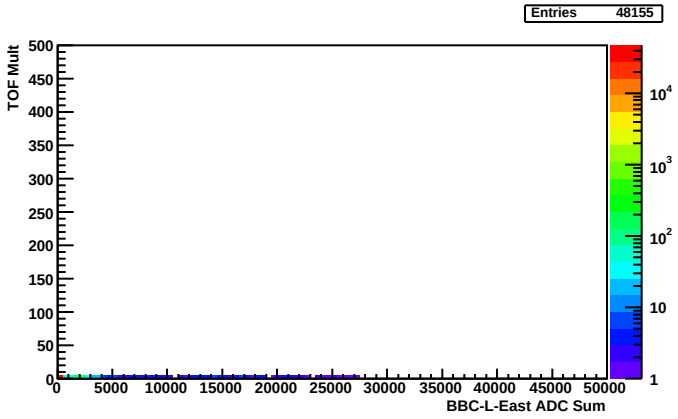

BBQ-VP002 (LO threshold)
Entries 770480
TAC
QT Input Channel

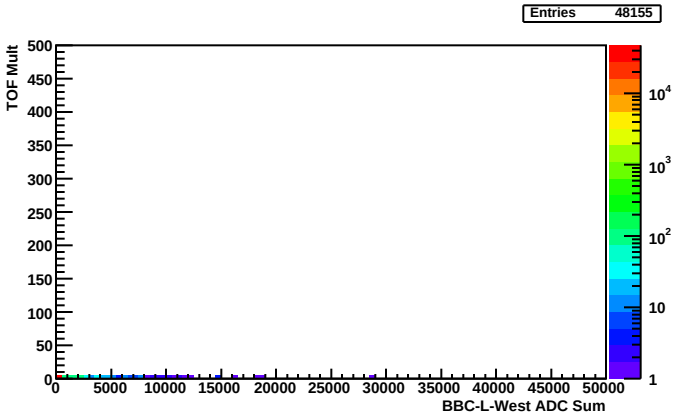

BBQ-VP003 (HI threshold)
Entries 770480
ADC
QT Input Channel

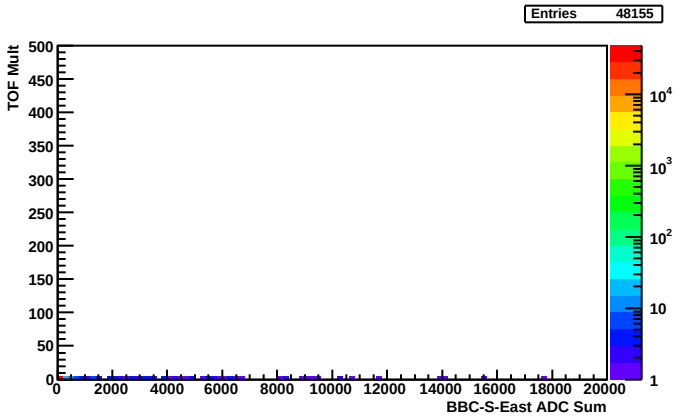

BBQ-VP003 (HI threshold)
Entries 770480
TAC
QT Input Channel

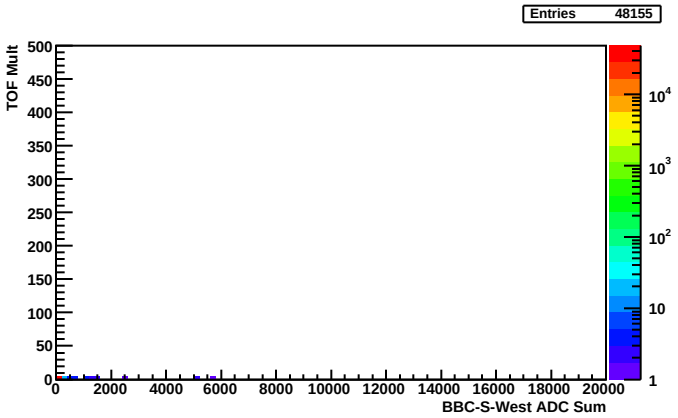

BBQ-VP004 (HI threshold)
Entries 770480
ADC
QT Input Channel

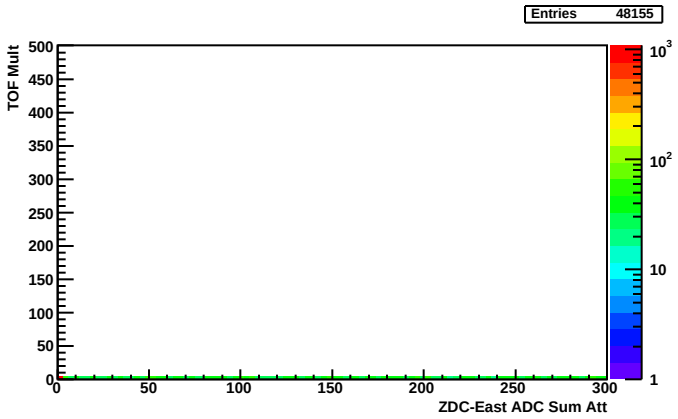

BBQ-VP004 (HI threshold)
Entries 770480
TAC
QT Input Channel

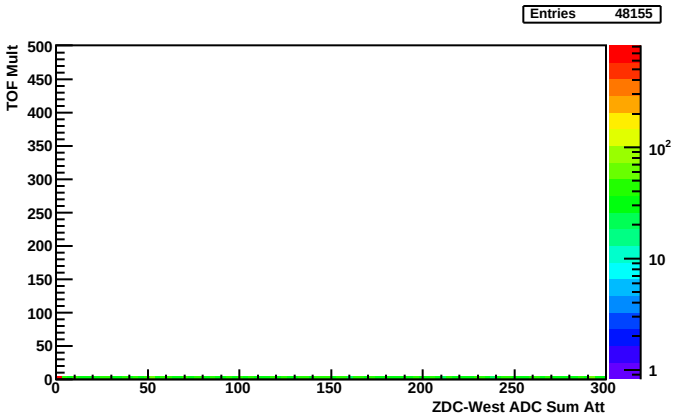

Entries 48155
TOF Mult
BBC-L-East ADC Sum

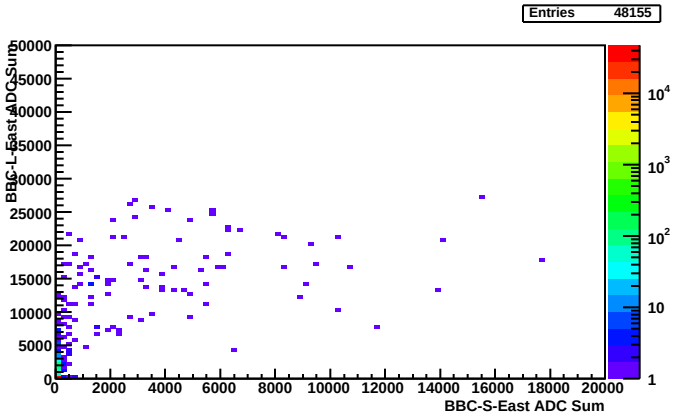

Entries 48155
TOF Mult
BBC-L-West ADC Sum

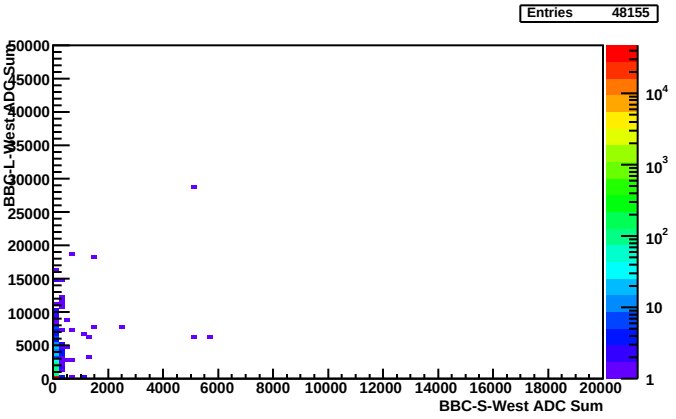

Entries 48155
TOF Mult
BBC-S-East ADC Sum

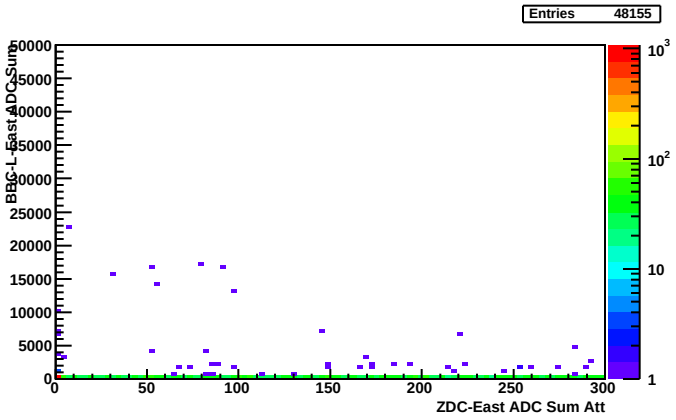

Entries 48155
TOF Mult
BBC-S-West ADC Sum

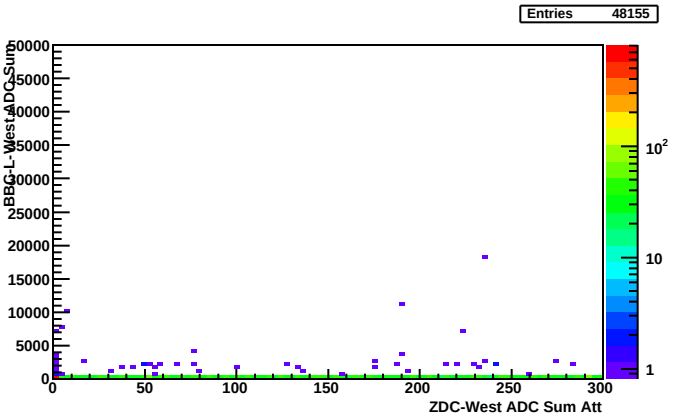

Entries 48155
TOF Mult
ZDC-East ADC Sum Att

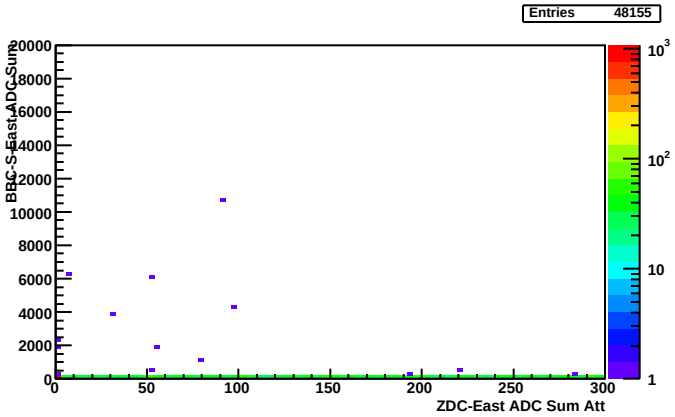

Entries 48155
TOF Mult
ZDC-West ADC Sum Att

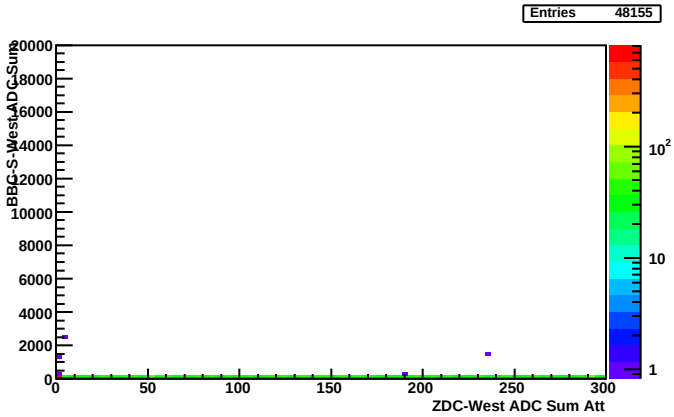

Entries 48155
BBC-L-East ADC Sum
BBC-S-East ADC Sum

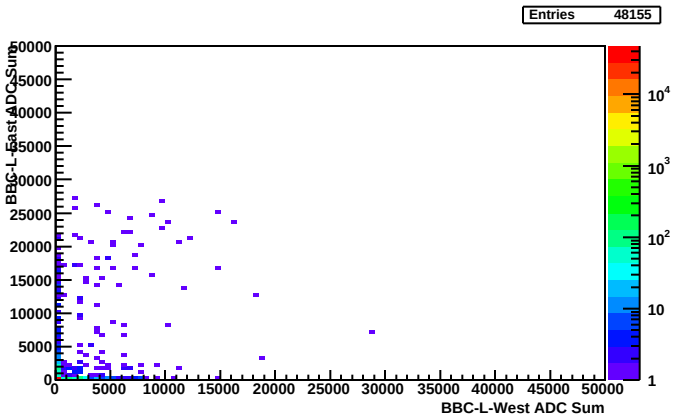

Entries 48155
BBC-L-West ADC Sum
BBC-S-West ADC Sum

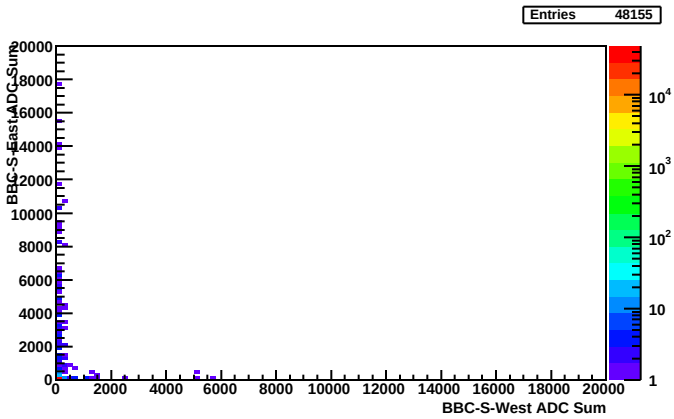

Entries 48155
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

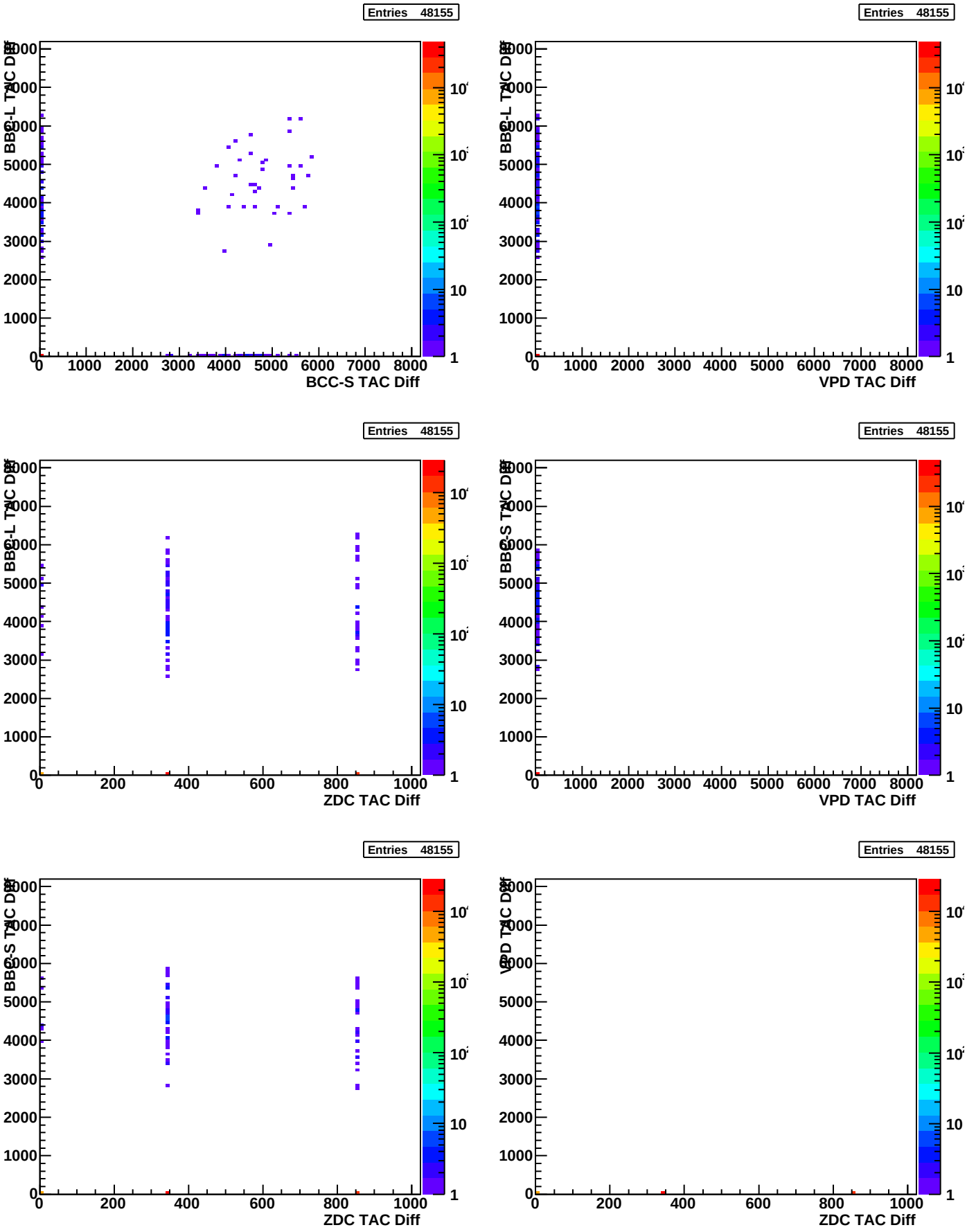

Entries 48155
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

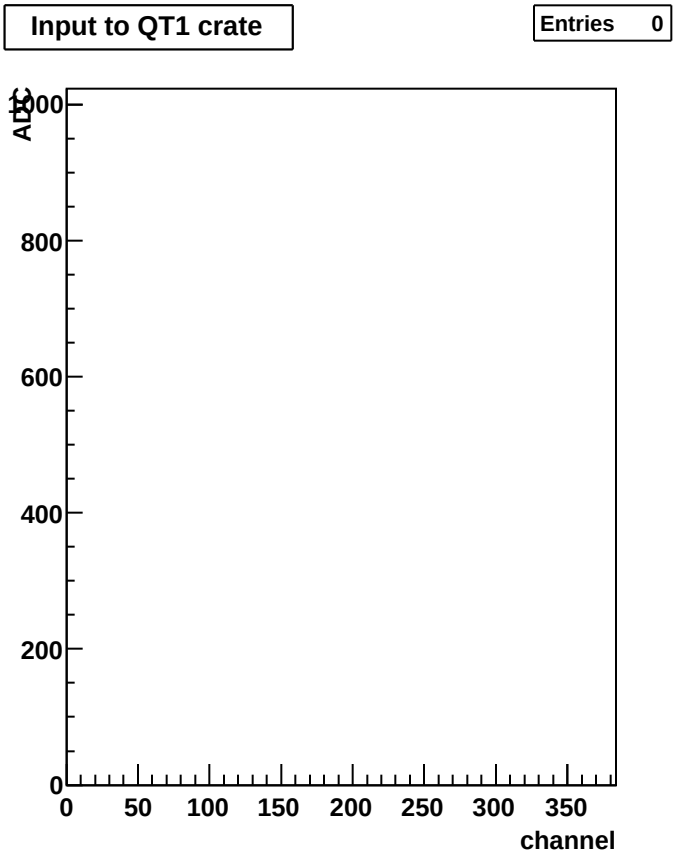

Entries 48155
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

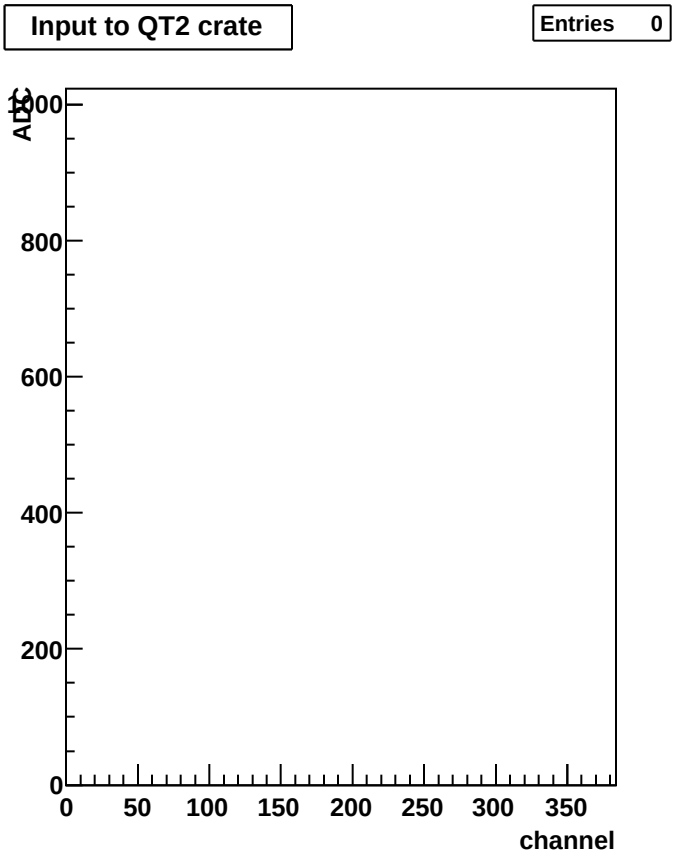

Entries 48155
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

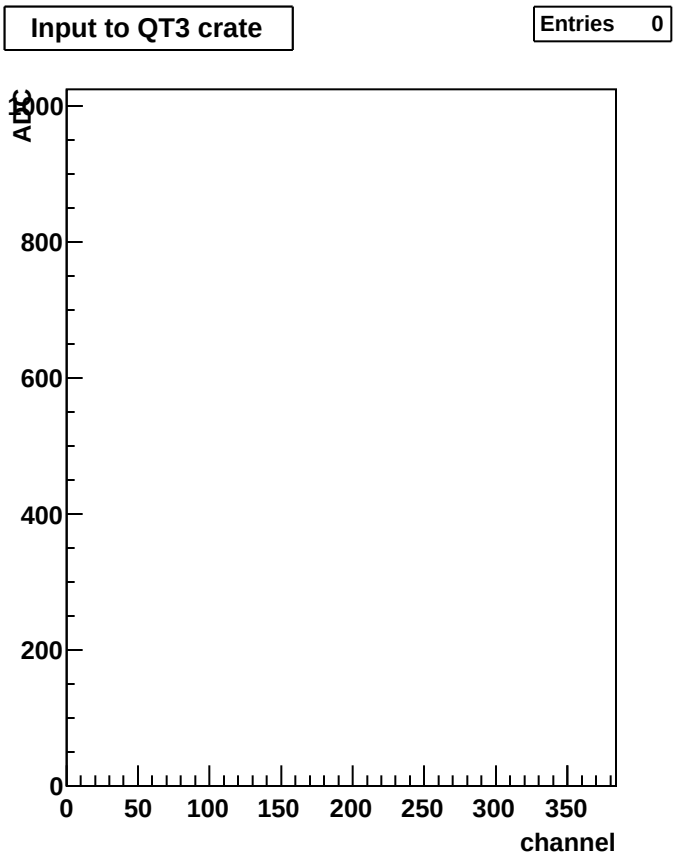

Entries 48155
BBC-L-East ADC Sum
BBC-L-West ADC Sum

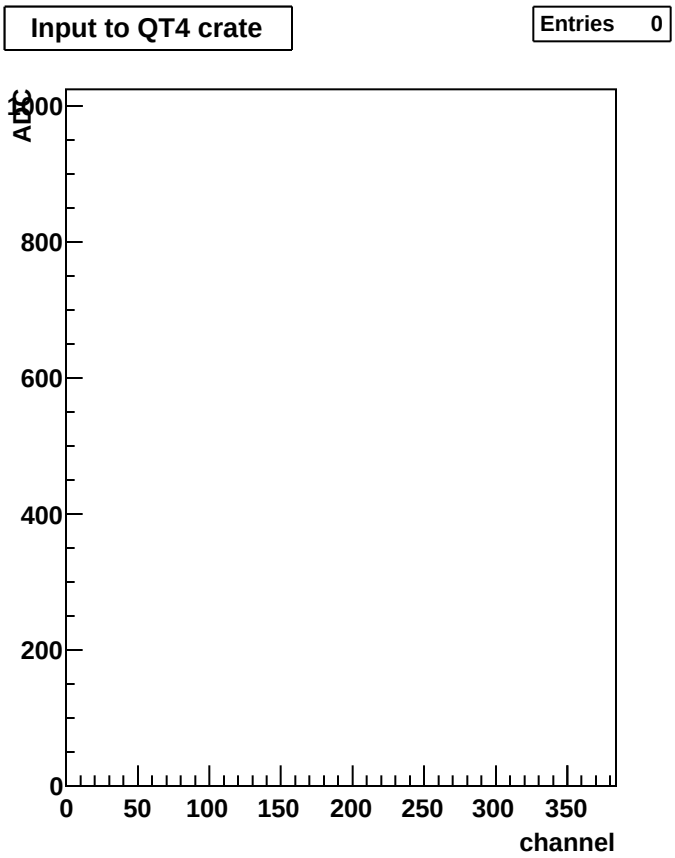

Entries 48155
BBC-S-East ADC Sum
BBC-S-West ADC Sum

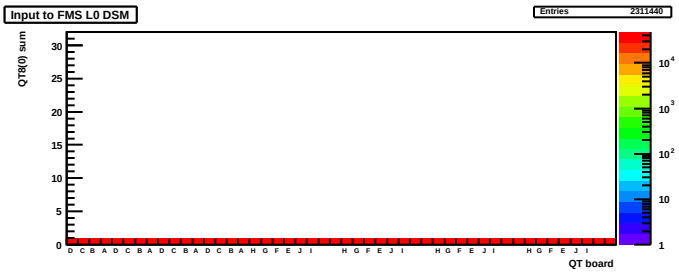

Entries 48155
BBC-L TAC Diff
BCC-S TAC Diff
VPD TAC Diff
ZDC TAC Diff
BBC-S TAC Diff

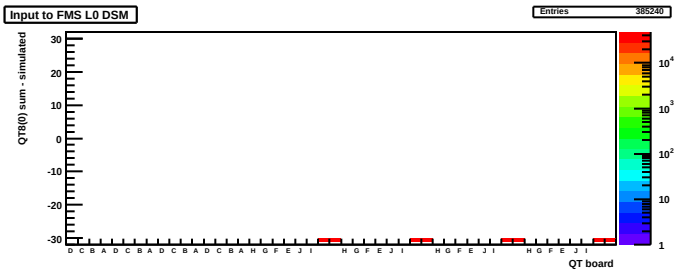

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

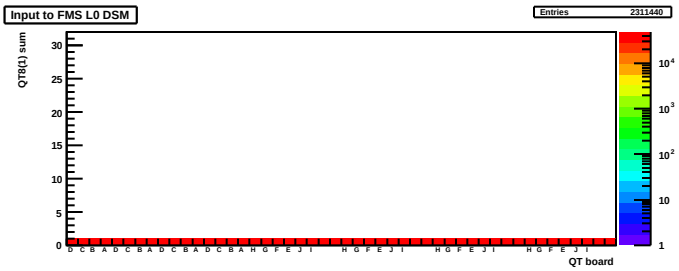

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

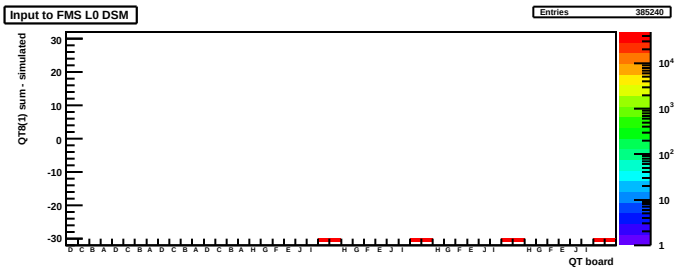

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

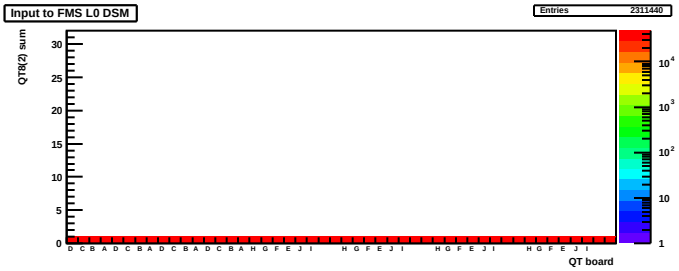

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

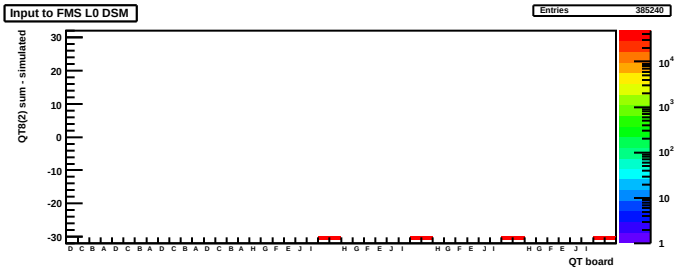

Input to FMS L0 DSM
Entries 2311440
QT8(0) sum
QT board

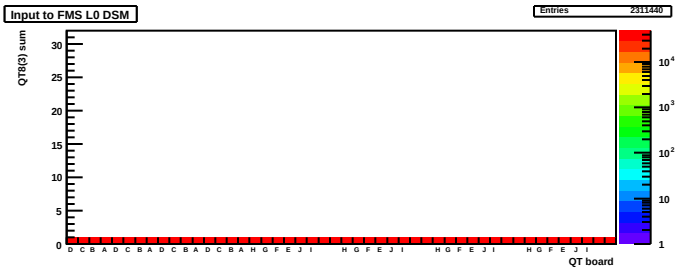

Input to FMS L0 DSM
Entries 385240
QT8(0) sum - simulated
QT board

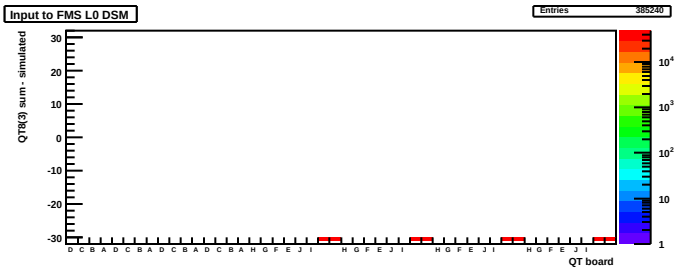

Input to FMS L0 DSM
Entries 2311440
QT8(1) sum
QT board

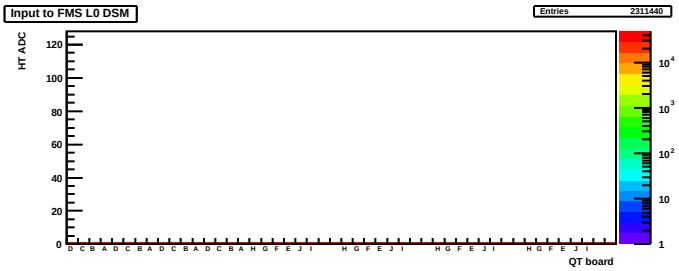

Input to FMS L0 DSM
Entries 385240
QT8(1) sum - simulated
QT board

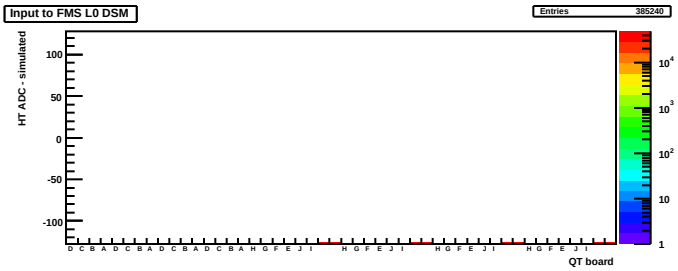

Input to FMS L0 DSM
Entries 2311440
QT8(2) sum
QT board

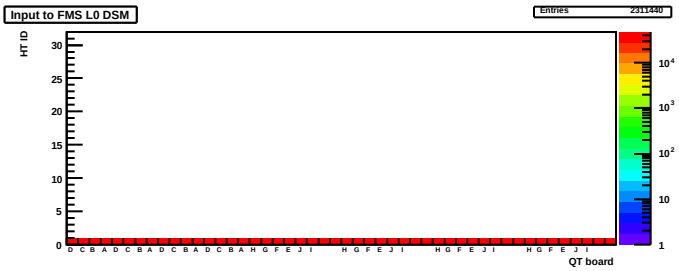

Input to FMS L0 DSM
Entries 385240
QT8(2) sum - simulated
QT board

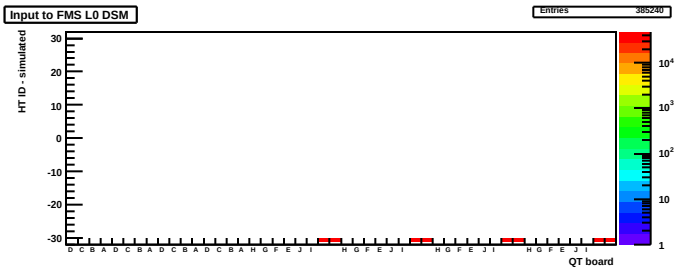

Input to FMS L0 DSM
Entries 2311440
QT8(3) sum
QT board

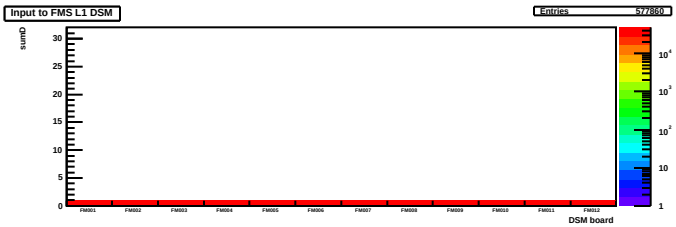

Input to FMS L0 DSM
Entries 385240
QT8(3) sum - simulated
QT board

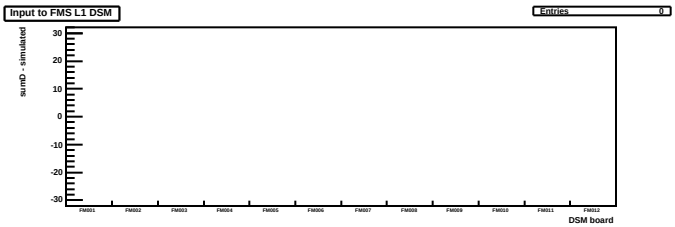

Input to FMS L0 DSM
Entries 2311440
HT ADC
QT board

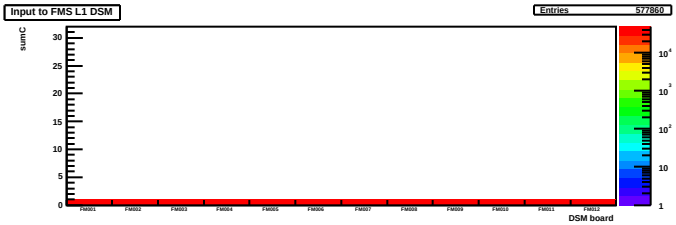

Input to FMS L0 DSM
Entries 385240
HT ADC - simulated
QT board

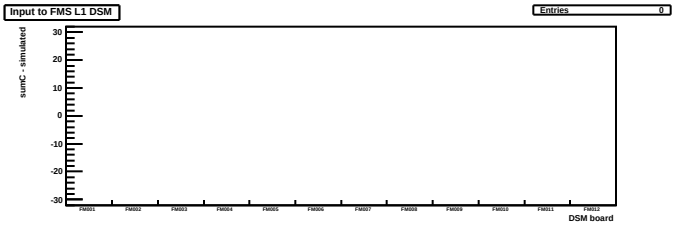

Input to FMS L0 DSM
Entries 2311440
HT ID
QT board

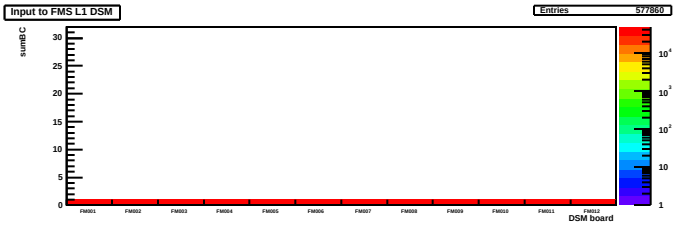

Input to FMS L0 DSM
Entries 385240
HT ID - simulated
QT board

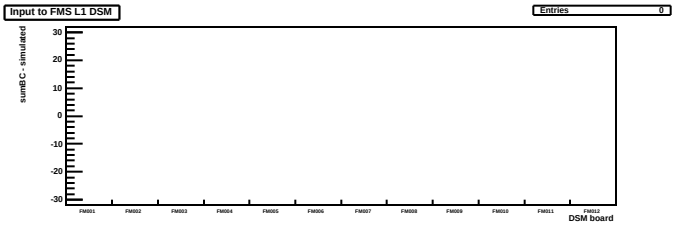

Input to FMS L1 DSM
Entries 577860
sumD
DSM board

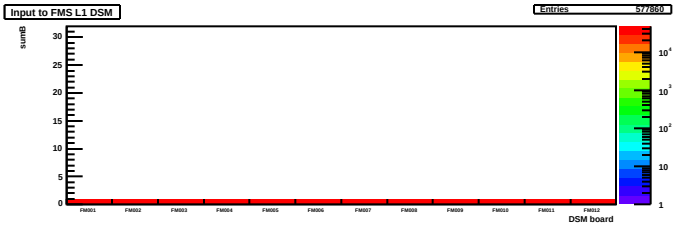

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

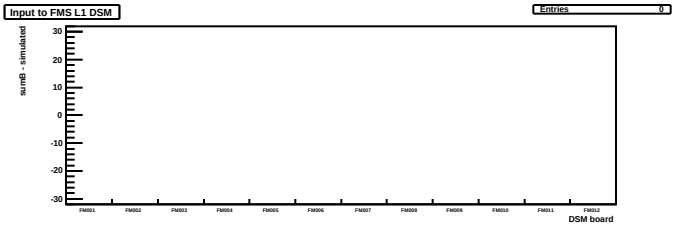

Input to FMS L1 DSM
Entries 577860
sumC
DSM board

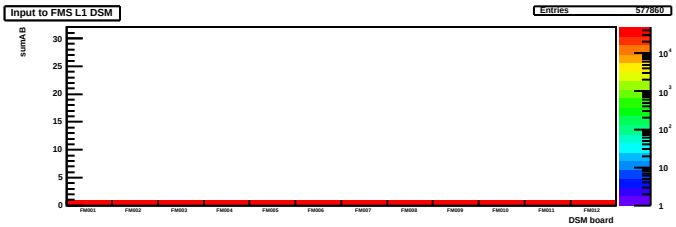

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

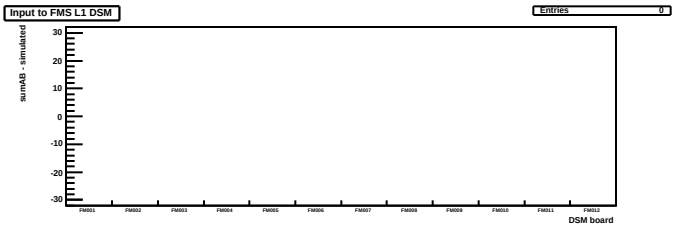

Input to FMS L1 DSM
Entries 577860
sumBC
DSM board

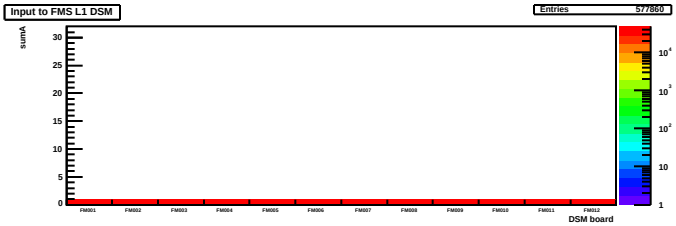

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

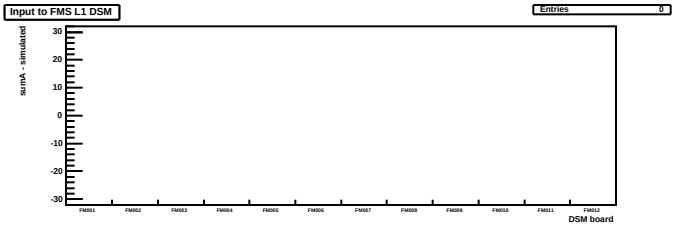

Input to FMS L1 DSM
Entries 577860
sumB
DSM board

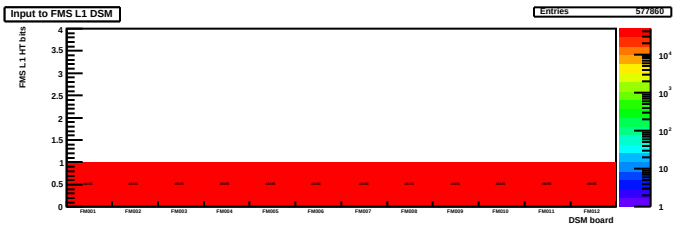

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

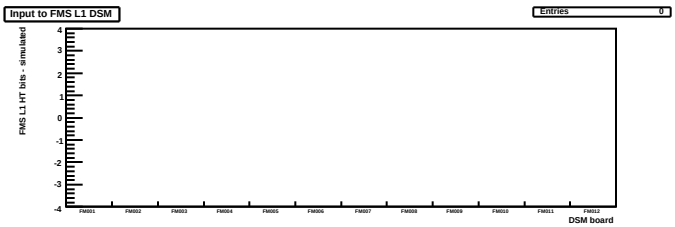

Input to FMS L1 DSM
Entries 577860
sumAB
DSM board

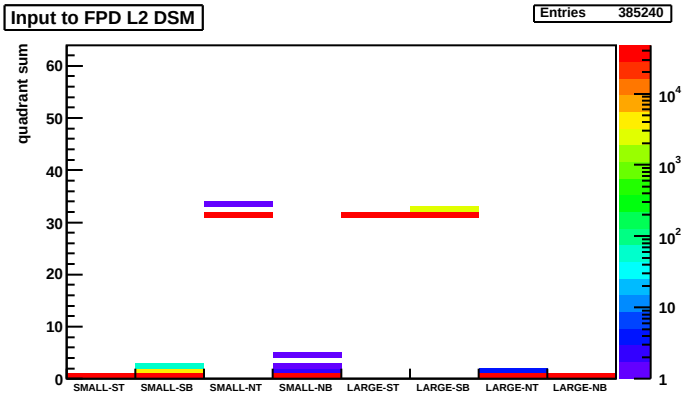

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

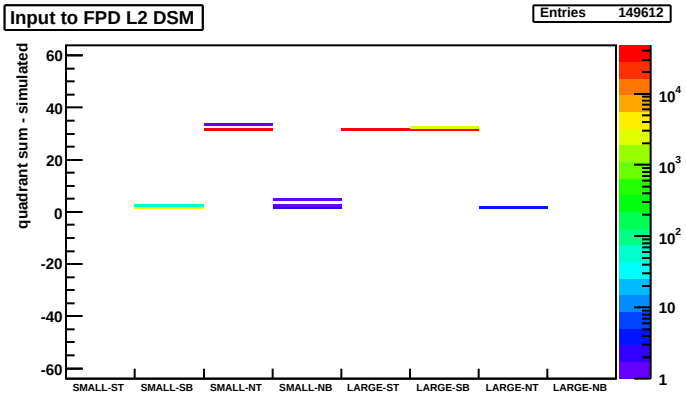

Input to FMS L1 DSM
Entries 577860
sumA
DSM board

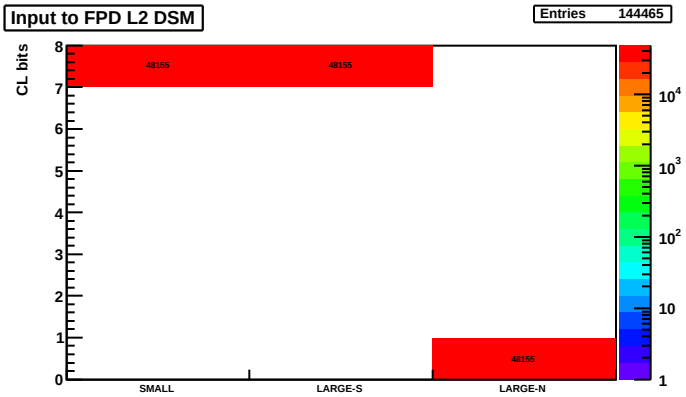

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

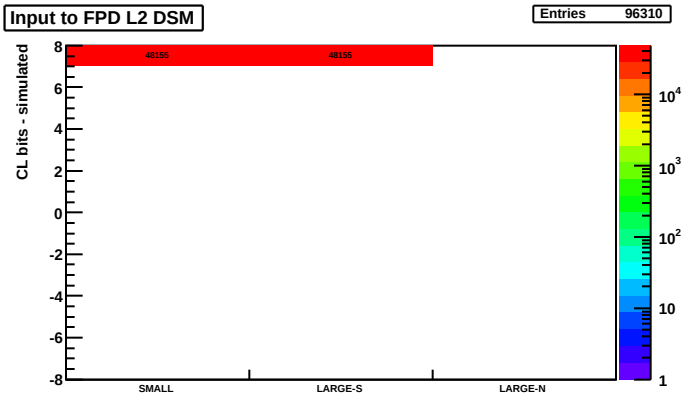

Input to FMS L1 DSM
Entries 577860
FMS L1 HT bits
DSM board

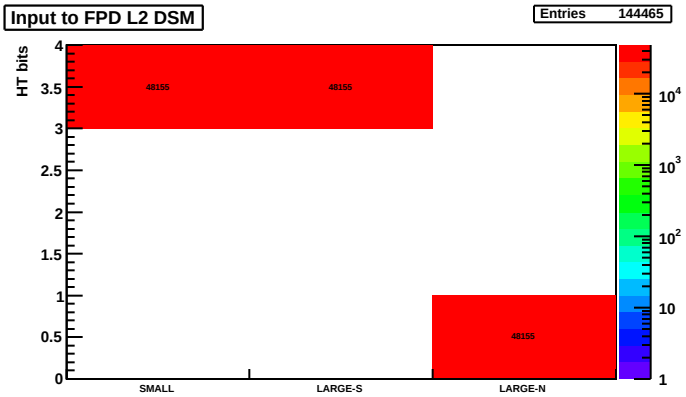

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

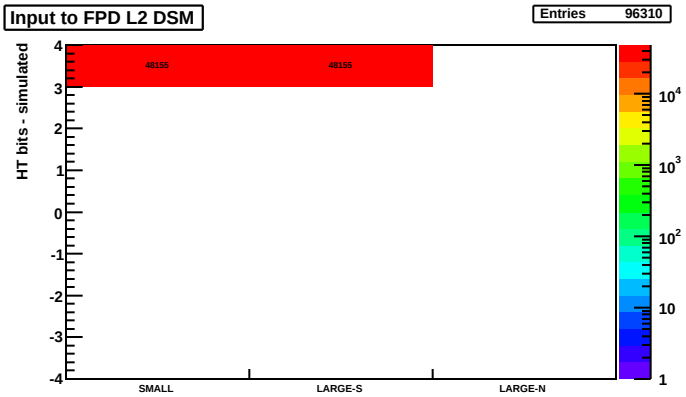

Input to FPD L2 DSM
Entries 385240
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

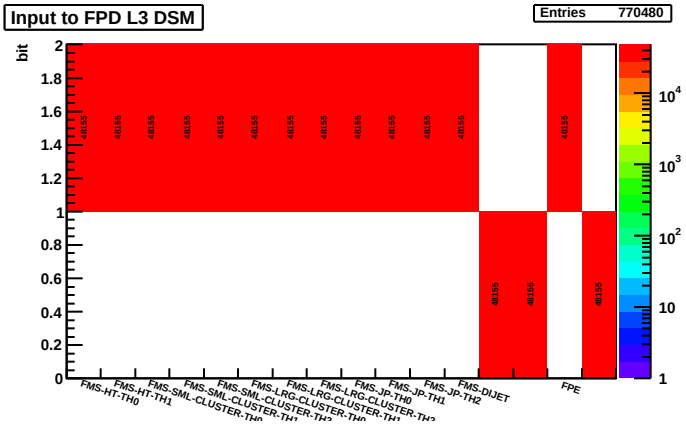

Input to FPD L2 DSM
Entries 149612
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

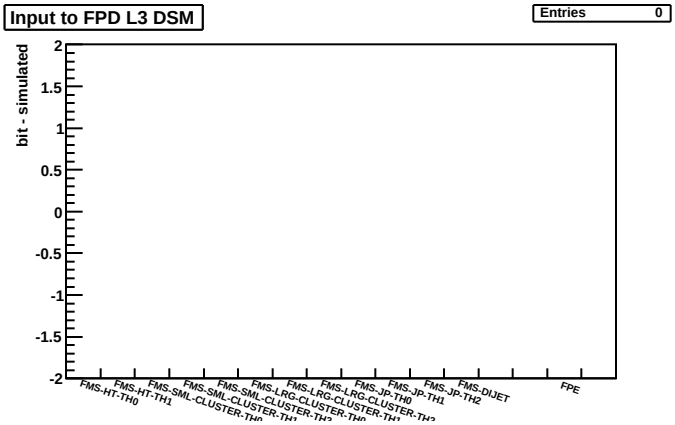

Input to FPD L2 DSM
Entries 144465
CL bits
SMALL
LARGE-S
LARGE-N

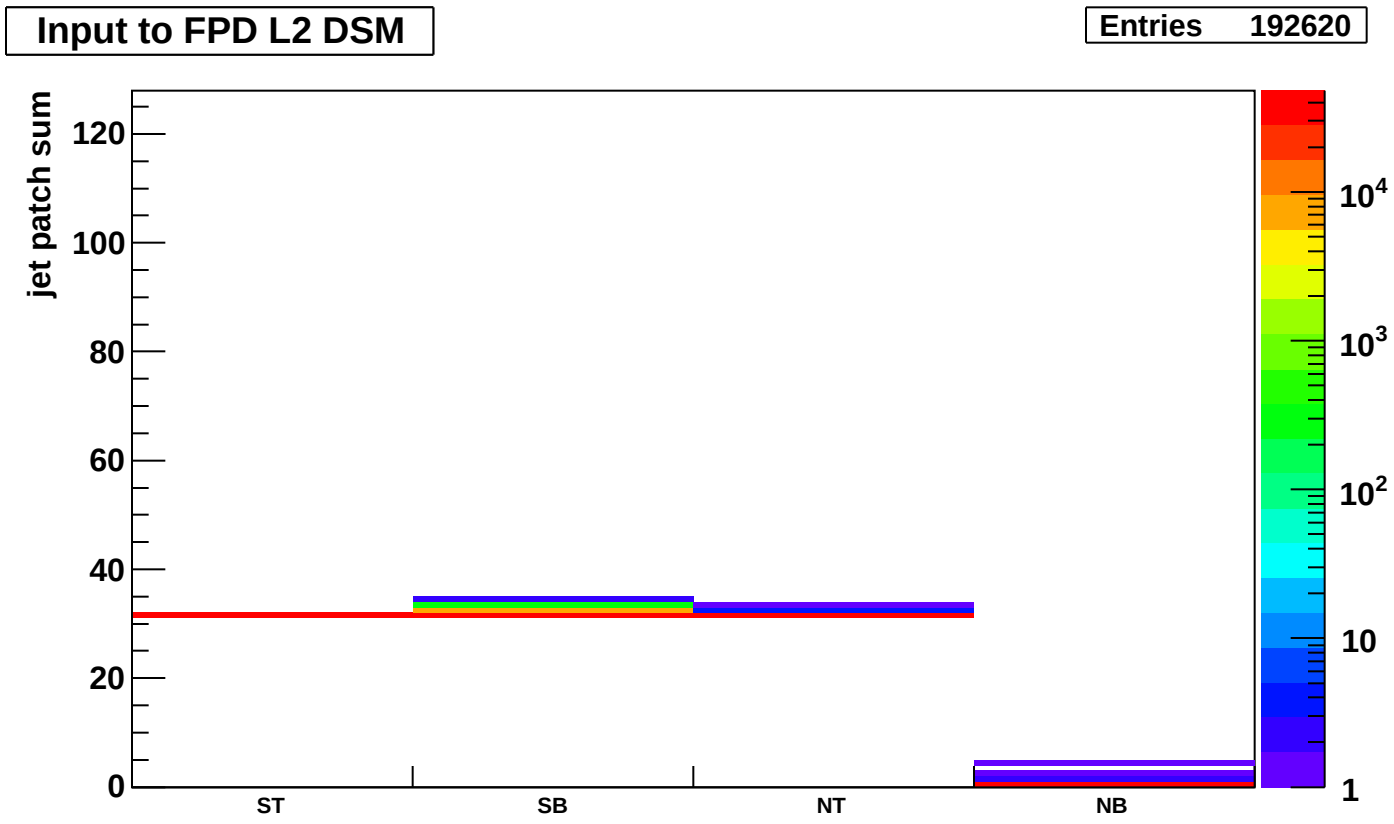

Input to FPD L2 DSM
Entries 96310
CL bits - simulated
SMALL
LARGE-S
LARGE-N

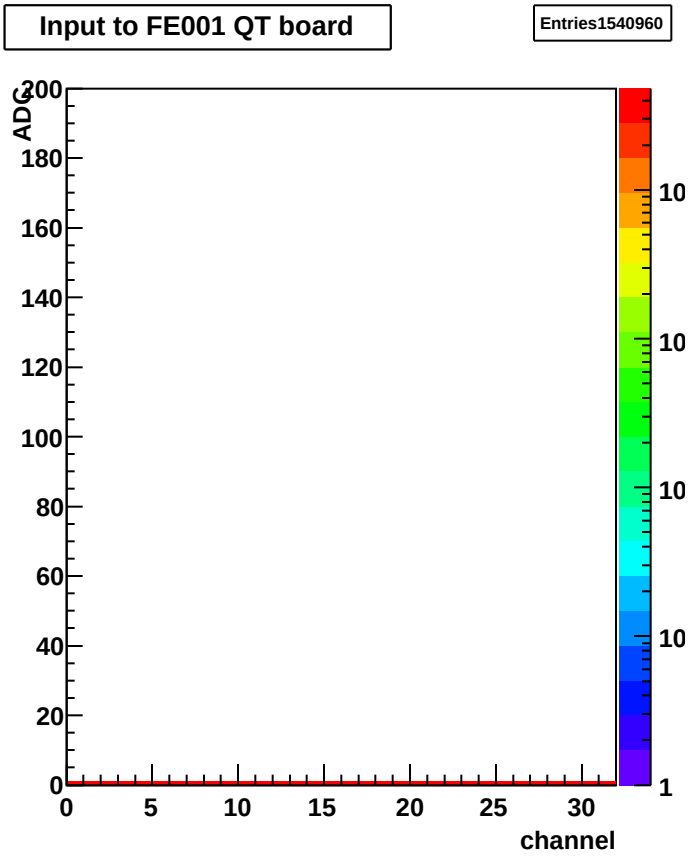

Input to FPD L2 DSM
Entries 144465
HT bits
SMALL
LARGE-S
LARGE-N

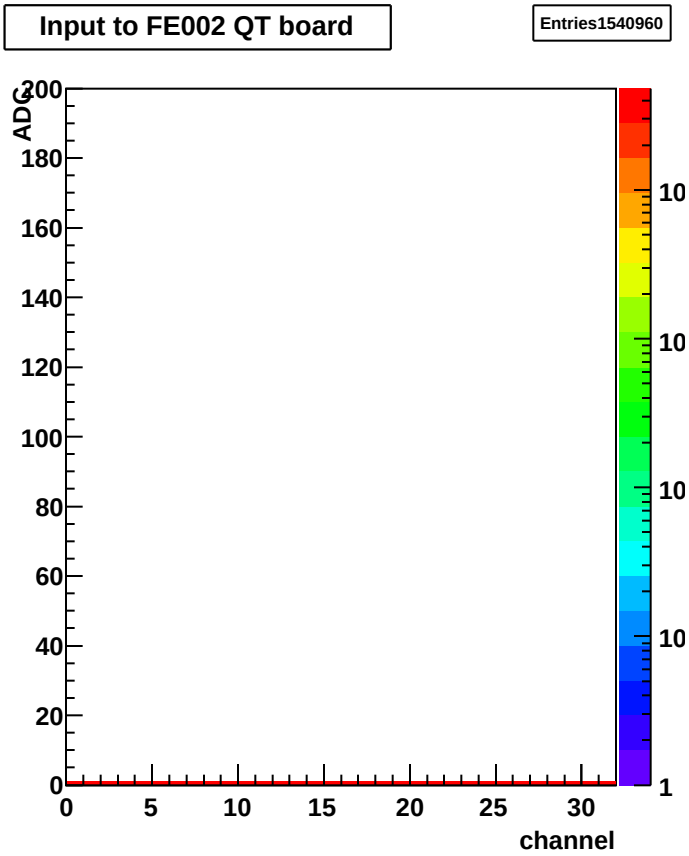

Input to FPD L2 DSM
Entries 96310
HT bits - simulated
SMALL
LARGE-S
LARGE-N

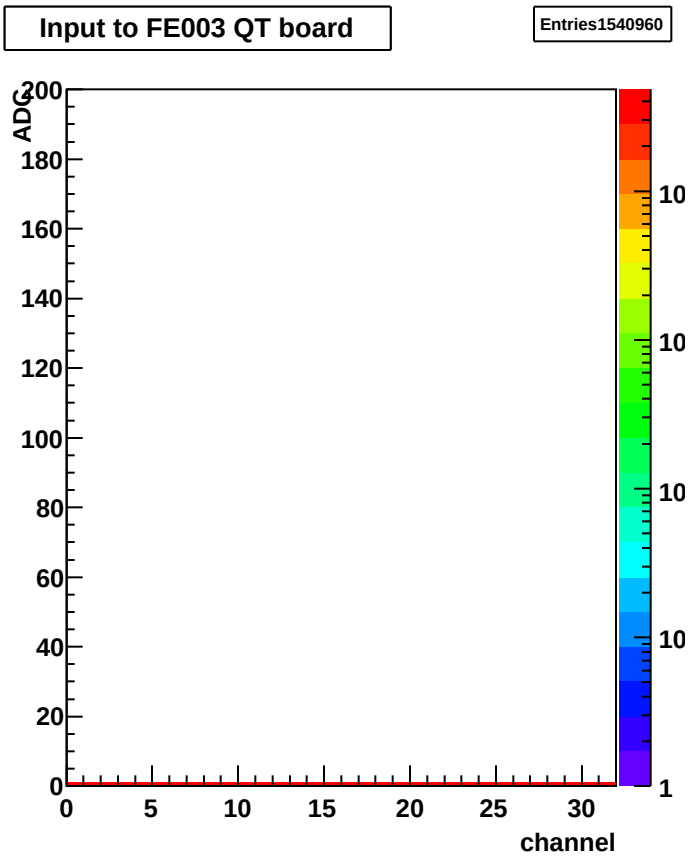

Input to FPD L3 DSM
Entries 770480
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

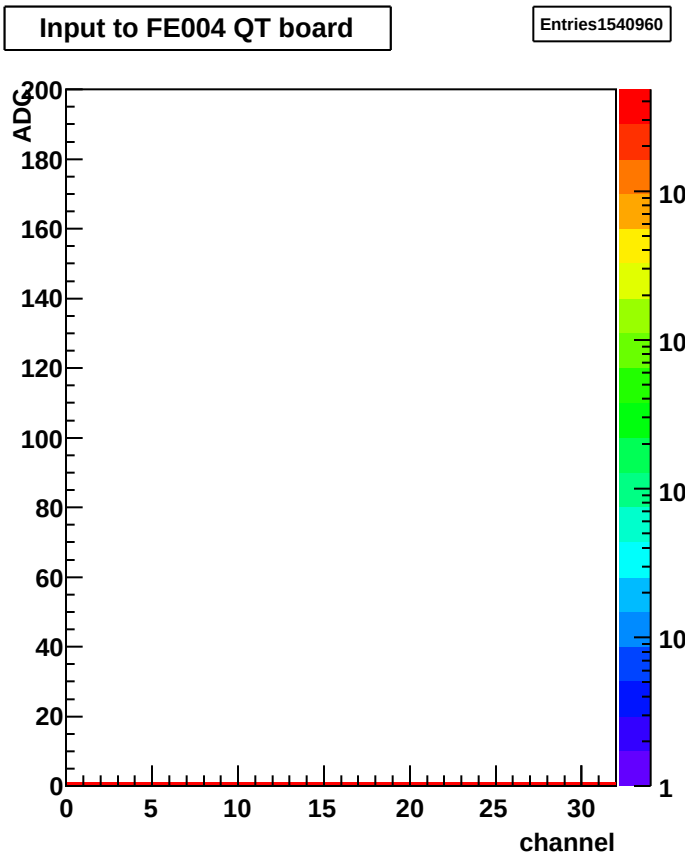

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

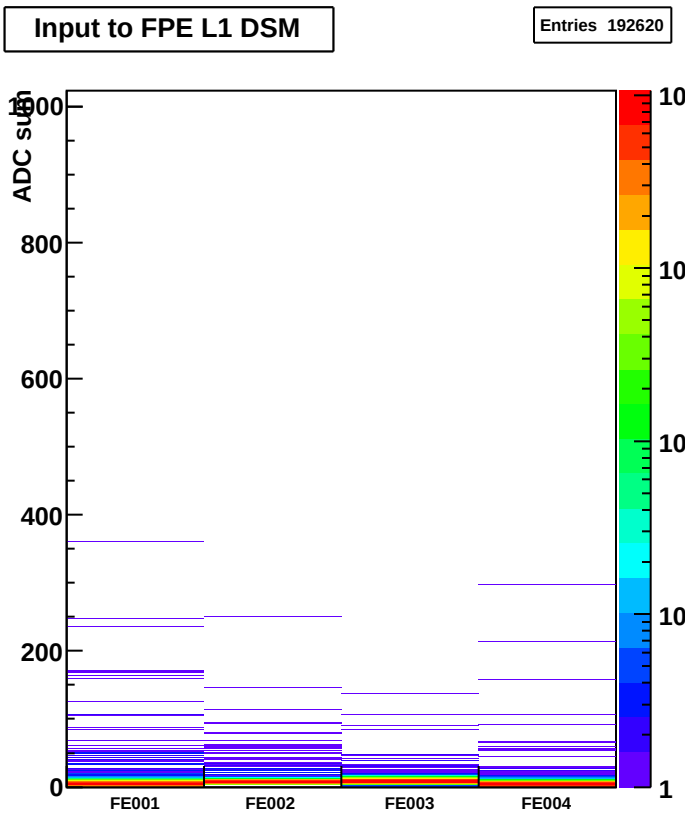

Input to FPD L2 DSM
Entries 192620
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10^4
10^3
10^2
10
1

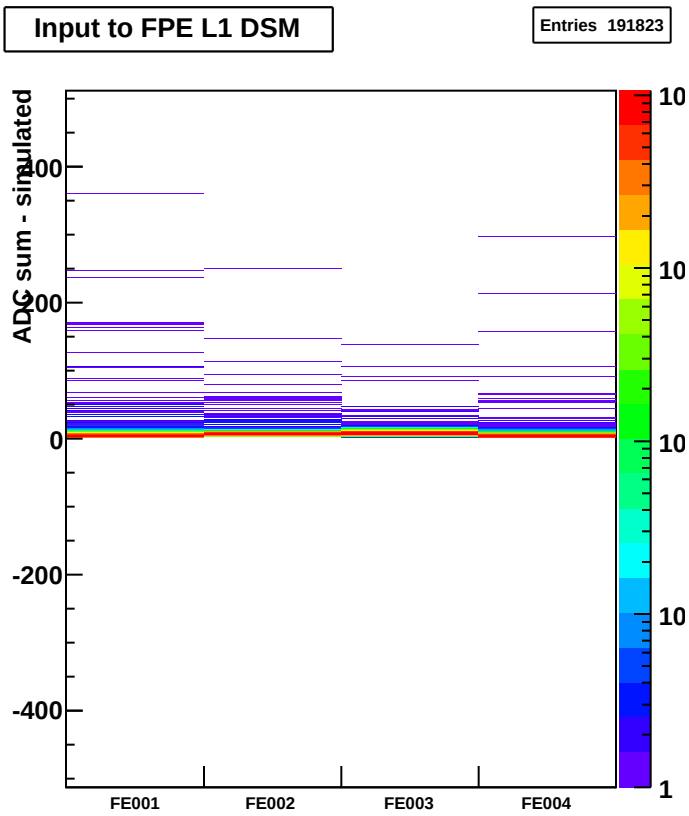

Input to FE001 QT board
Entries1540960
ADC
channel

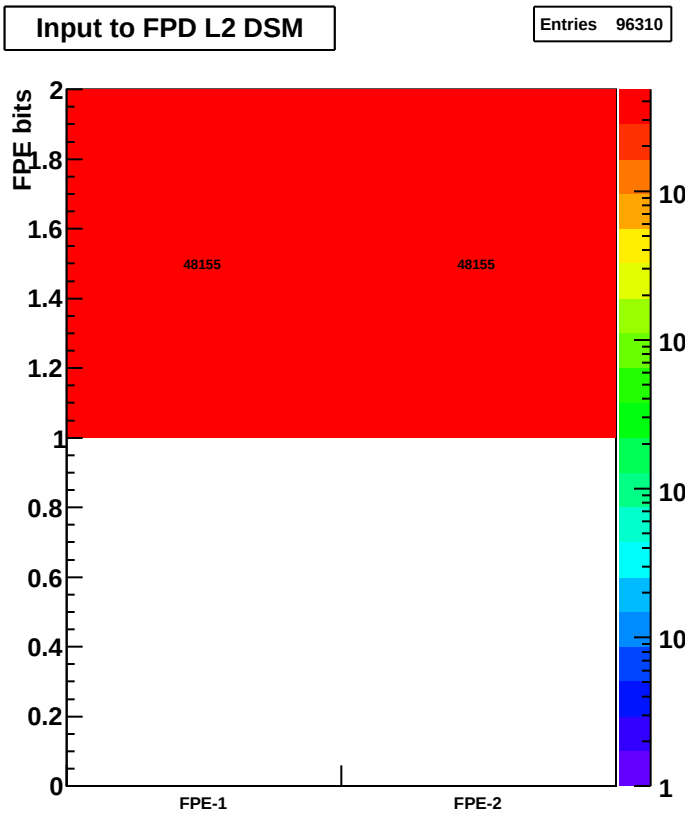

Input to FE002 QT board
Entries1540960
ADC
channel

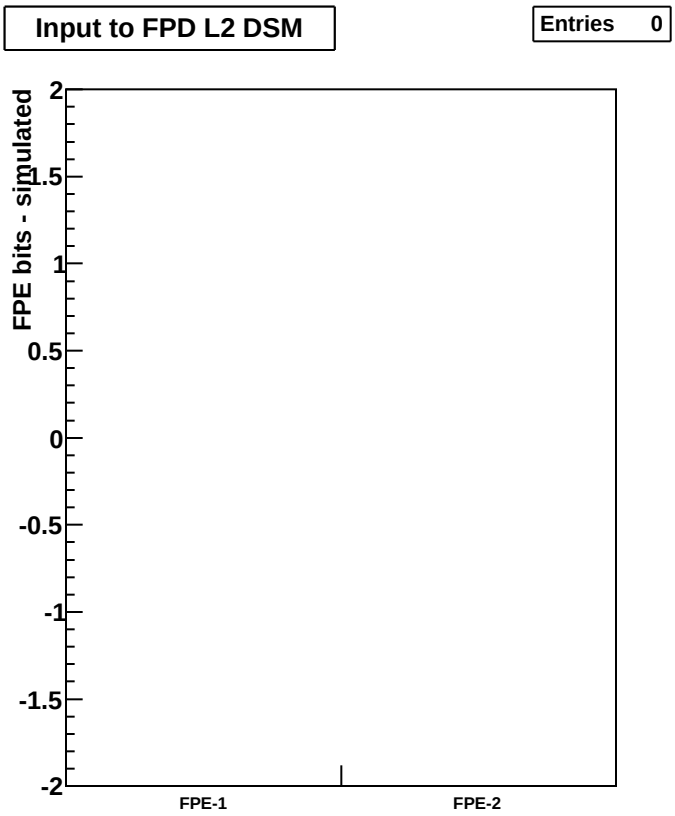

Input to FE003 QT board
Entries1540960
ADC
channel


Input to FE004 QT board
Entries1540960
ADC
channel


Input to FPE L1 DSM
Entries 192620
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 191823
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPD L2 DSM
Entries 96310
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
48155
48155
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