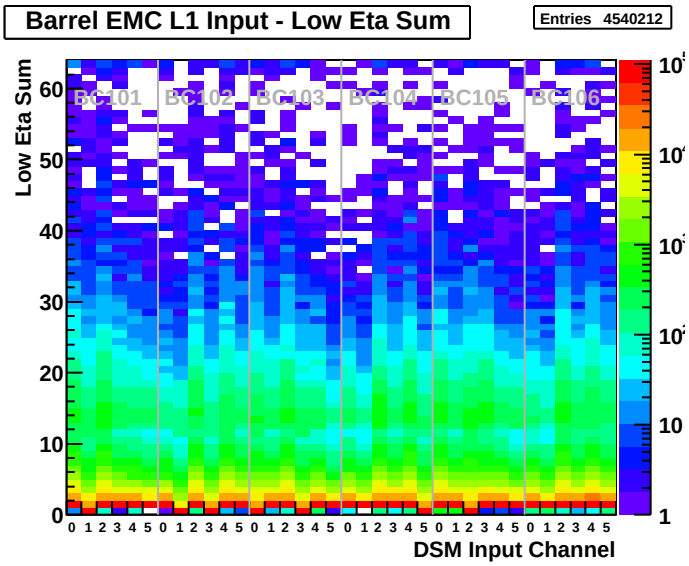
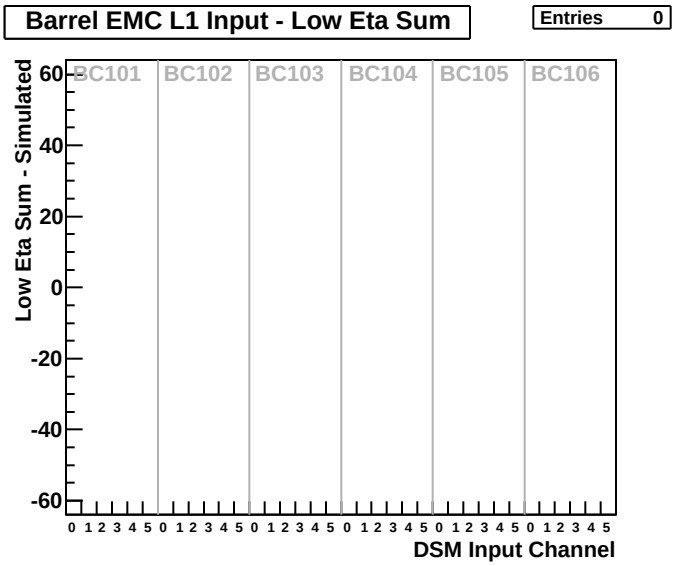
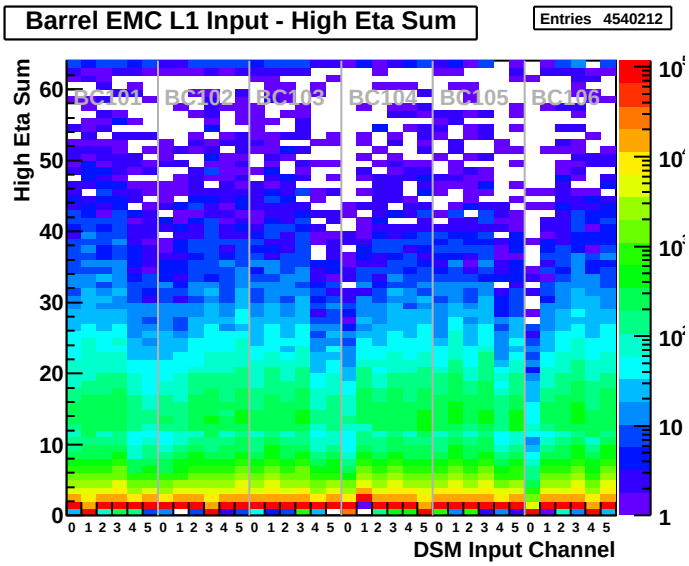
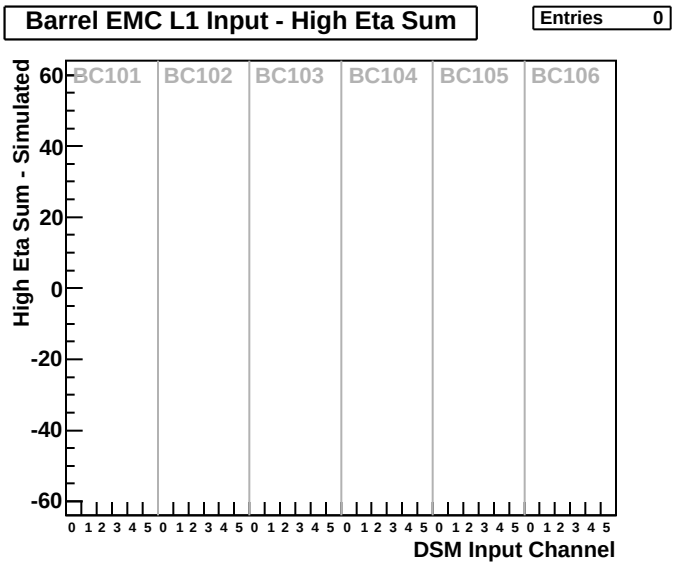
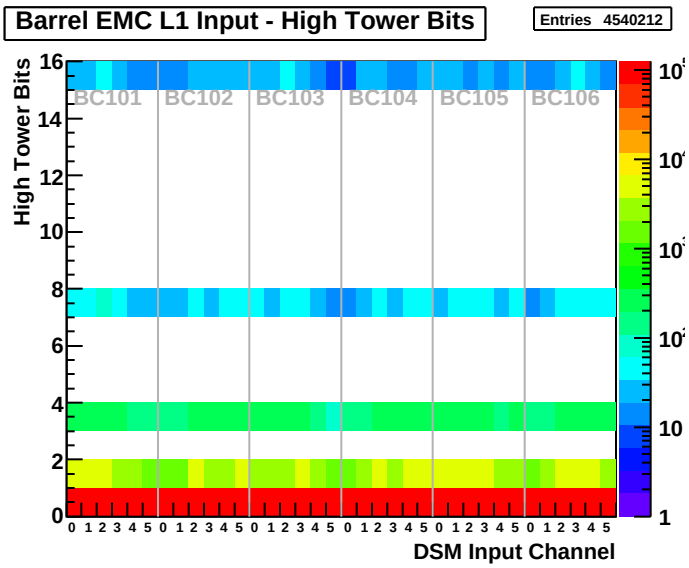
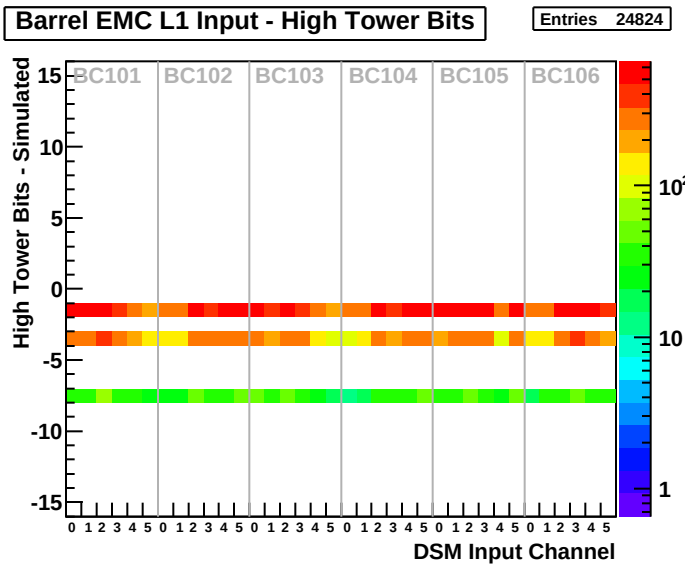

Barrel EMC L1 Input - Low Eta Sum
Entries 4540212
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

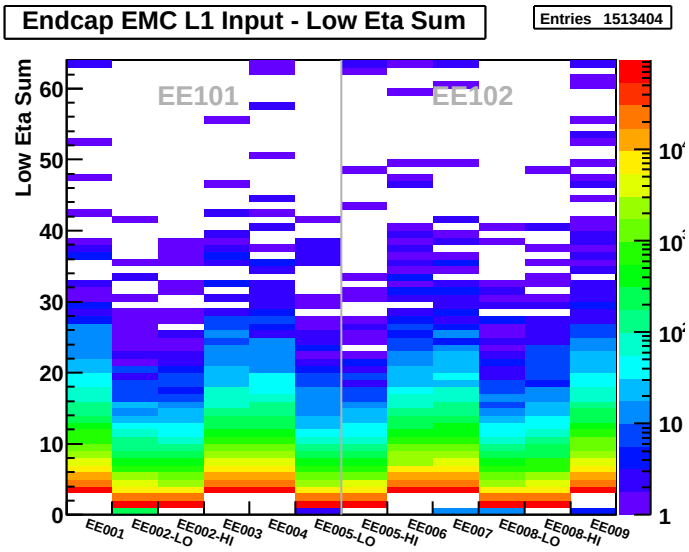

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

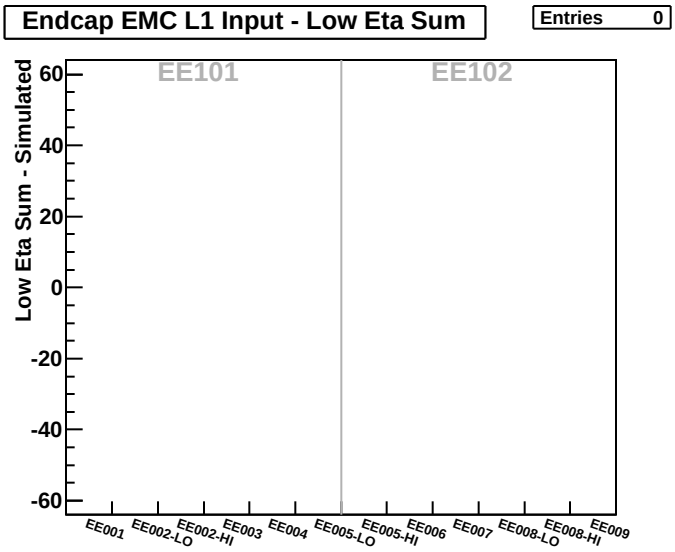

Barrel EMC L1 Input - High Eta Sum
Entries 4540212
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

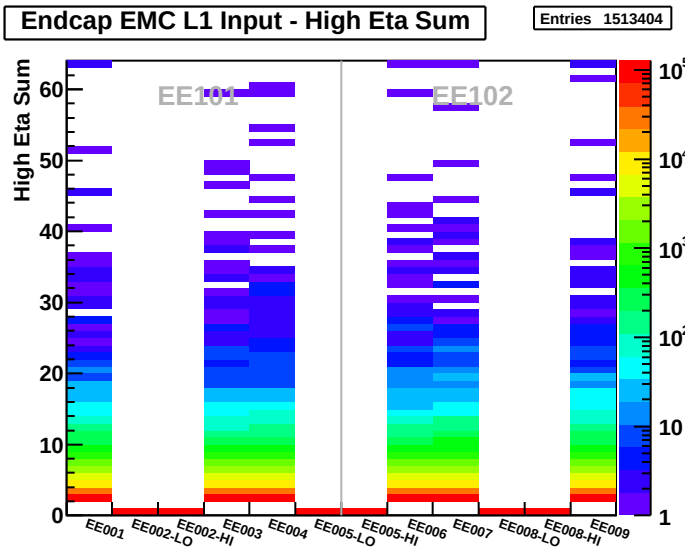

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

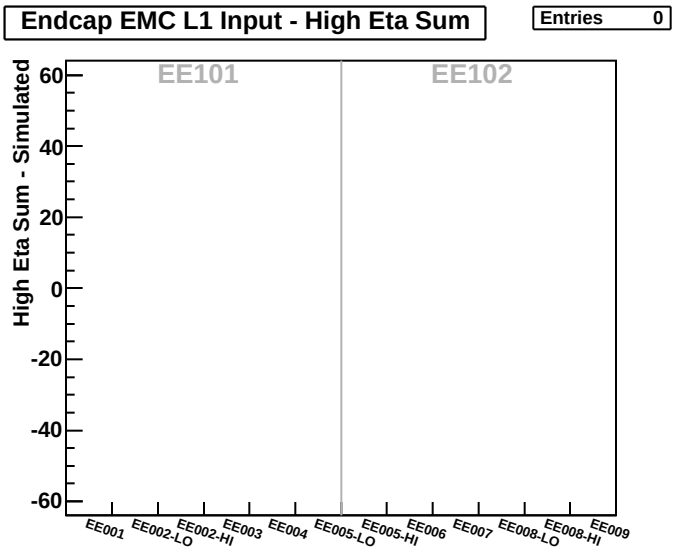

Barrel EMC L1 Input - High Tower Bits
Entries 4540212
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

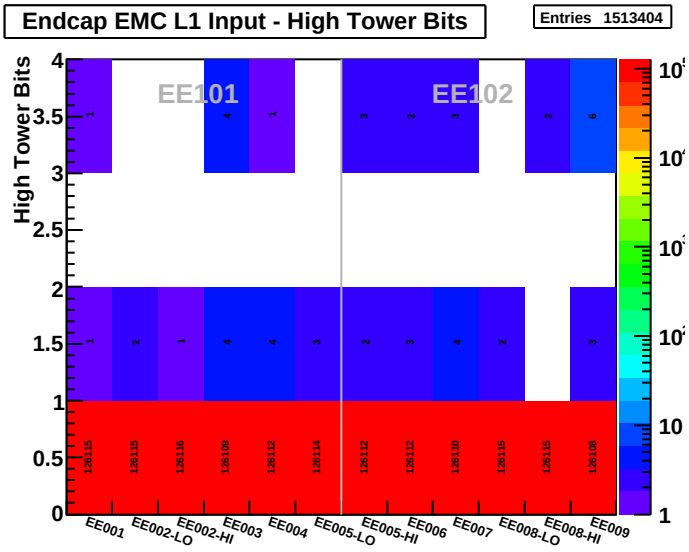

Barrel EMC L1 Input - High Tower Bits
Entries 24824
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

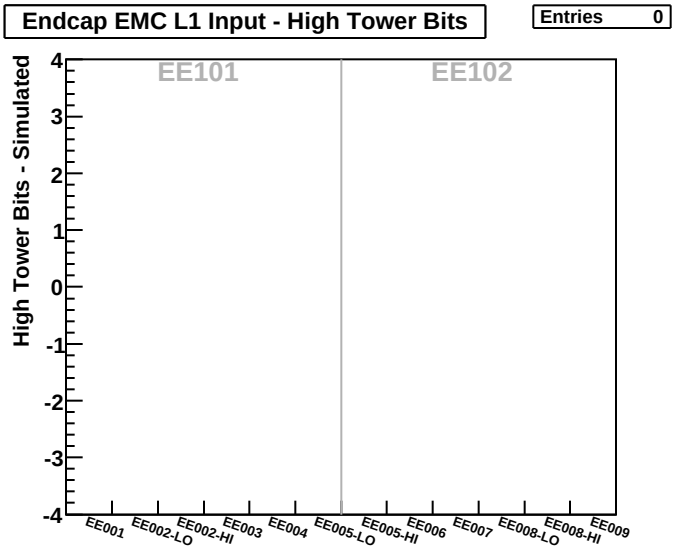

Endcap EMC L1 Input - Low Eta Sum
Entries 1513404
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

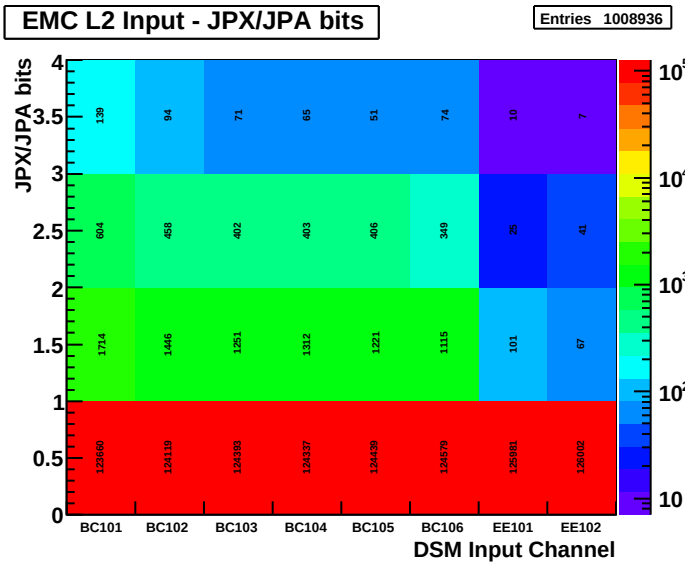

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

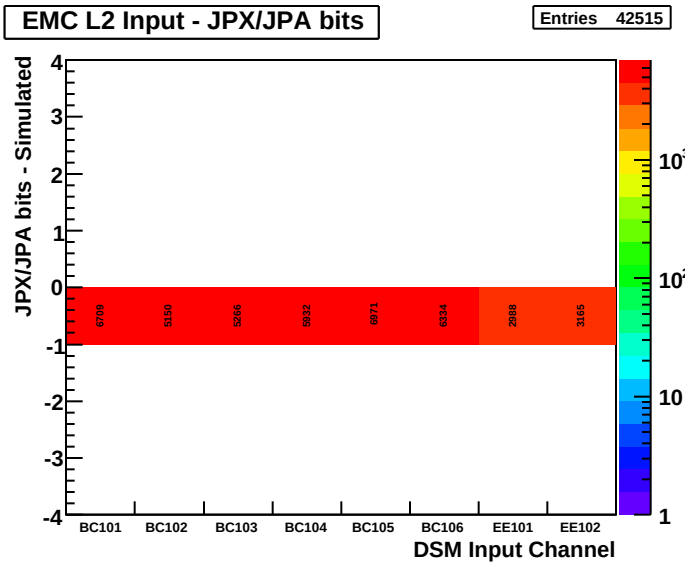

Endcap EMC L1 Input - High Eta Sum
Entries 1513404
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

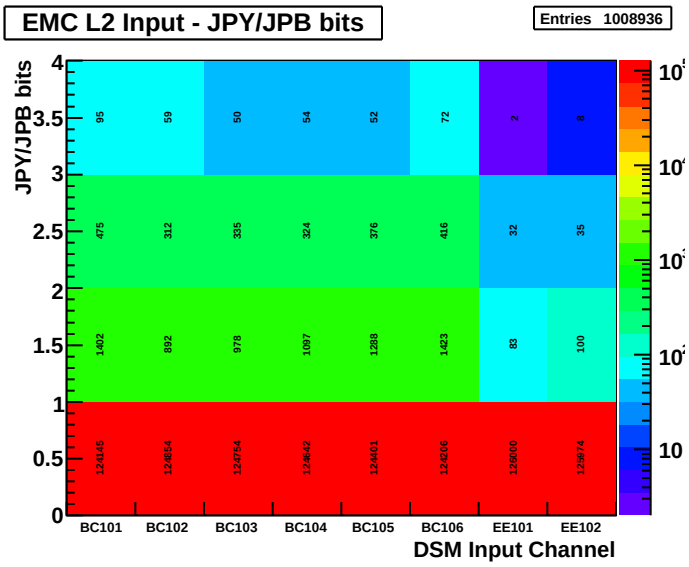

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

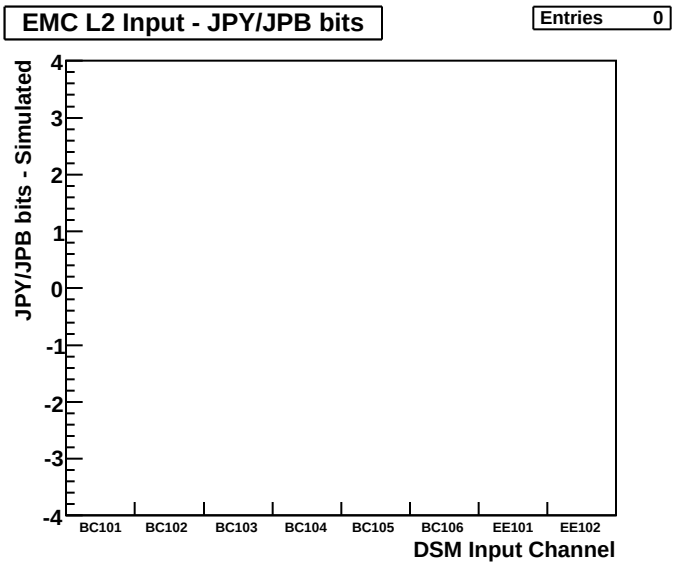

Endcap EMC L1 Input - High Tower Bits
Entries 1513404
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

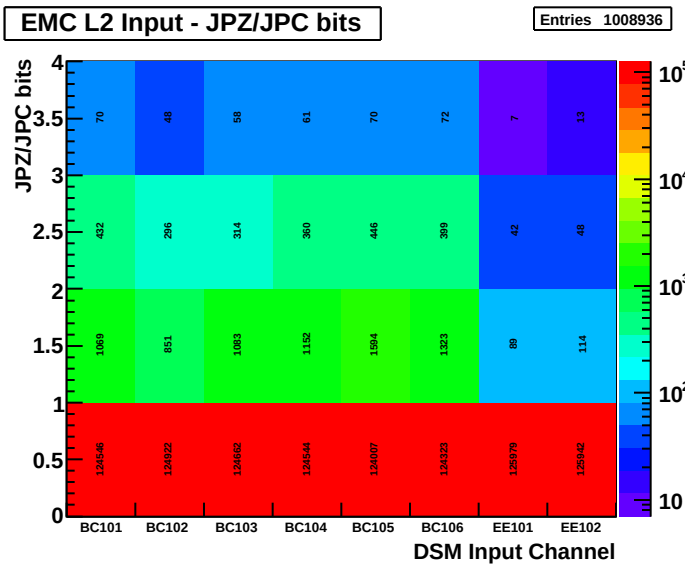

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

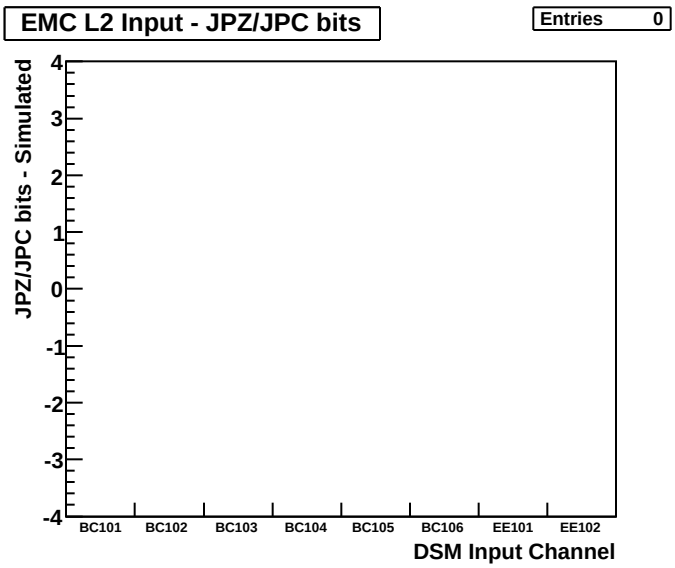

EMC L2 Input - JPX/JPA bits
Entries 1008936
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
139 94 71 65 51 74 10 7
604 458 402 403 406 349 25 41
1714 1446 1251 1312 1221 1115 101 67
123660 124119 124393 124337 124439 124579 125981 126002

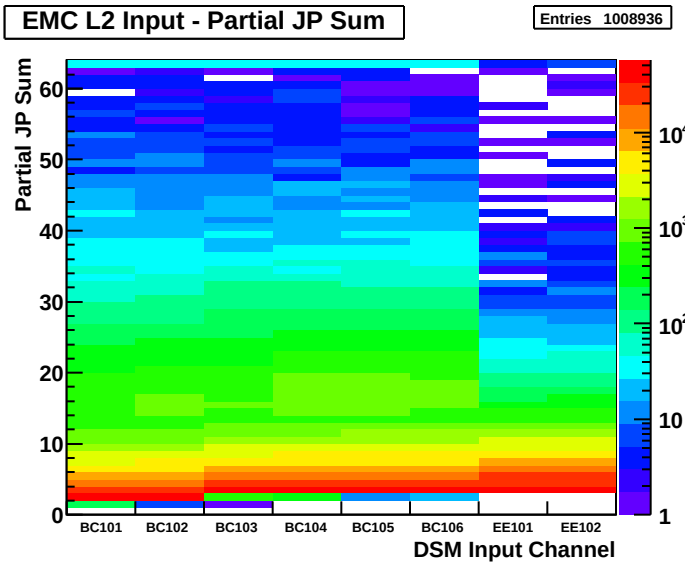

EMC L2 Input - JPX/JPA bits
Entries 42515
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6709 5150 5266 5932 6971 6334 2988 3165

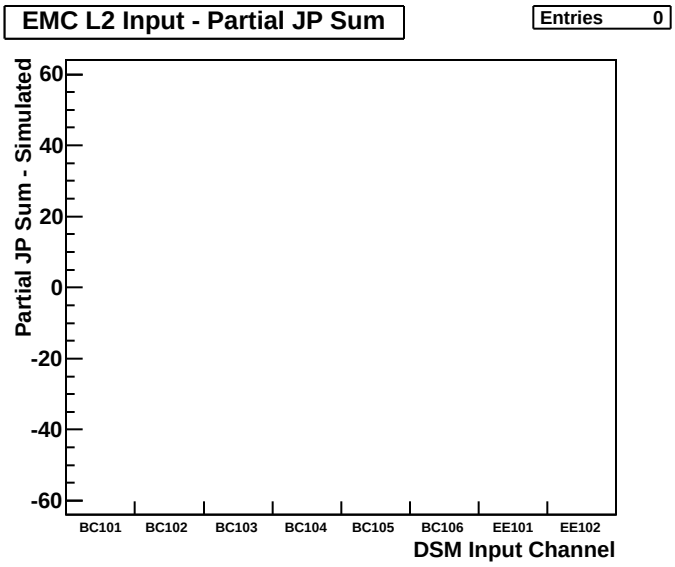

EMC L2 Input - JPY/JPB bits
Entries 1008936
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
95 59 50 54 52 72 2 8
475 312 335 324 376 416 32 35
1402 892 978 1097 1288 1423 83 100
124145 124854 124754 124642 124401 124206 126000 125974

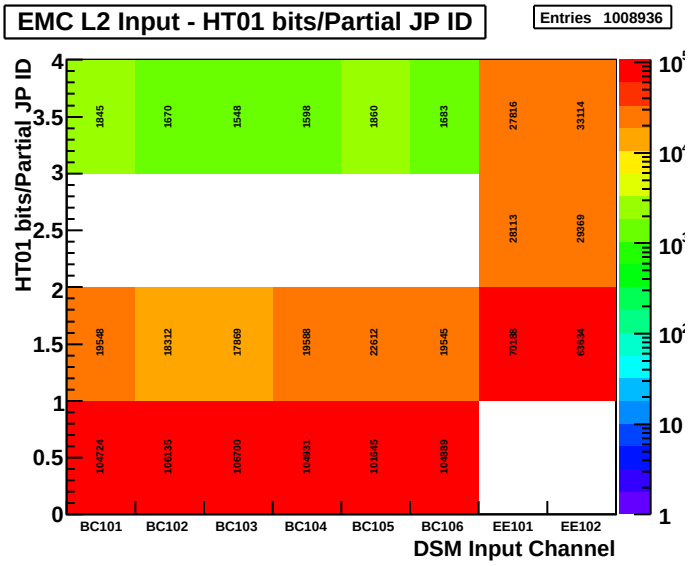

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

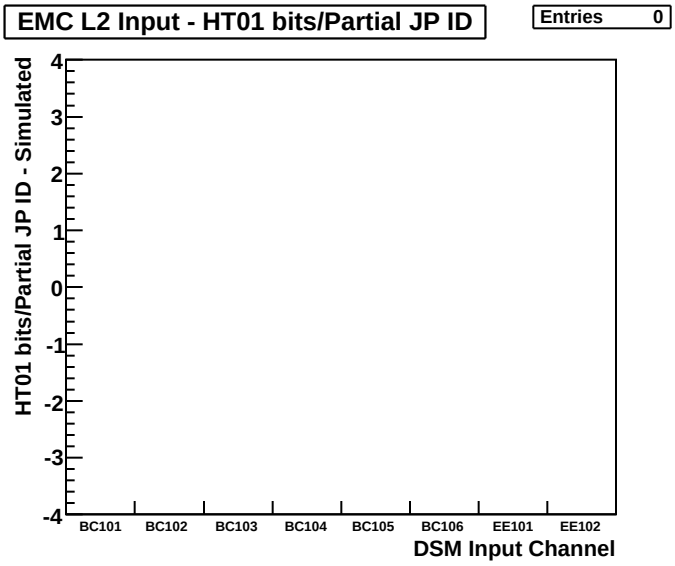

EMC L2 Input - JPZ/JPC bits
Entries 1008936
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
70 48 58 61 70 72 7 13
432 296 314 360 446 399 42 48
1069 851 1083 1152 1594 1323 89 114
124546 124922 124662 124544 124007 124323 125979 125942

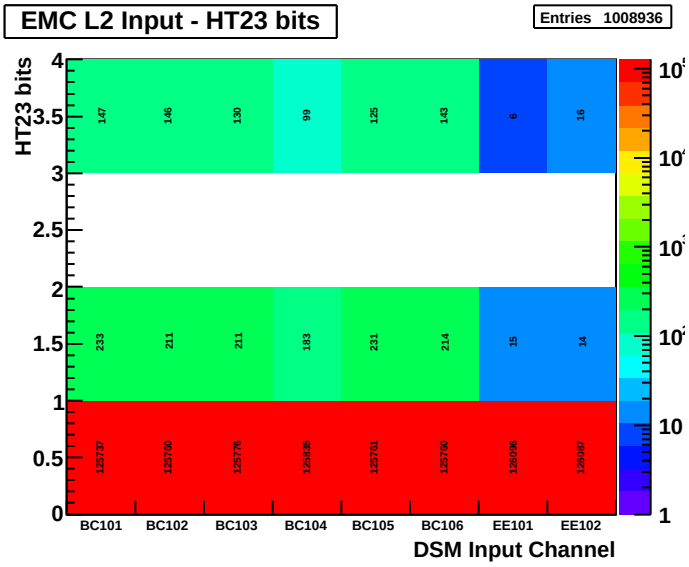

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

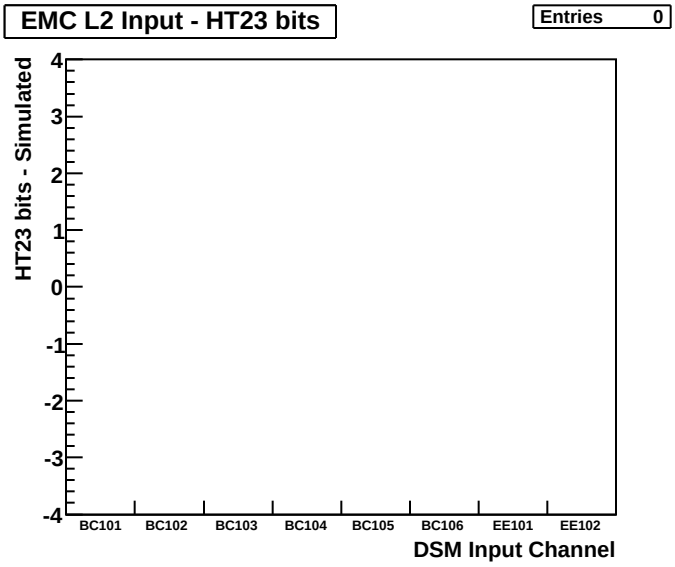

EMC L2 Input - Partial JP Sum
Entries 1008936
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

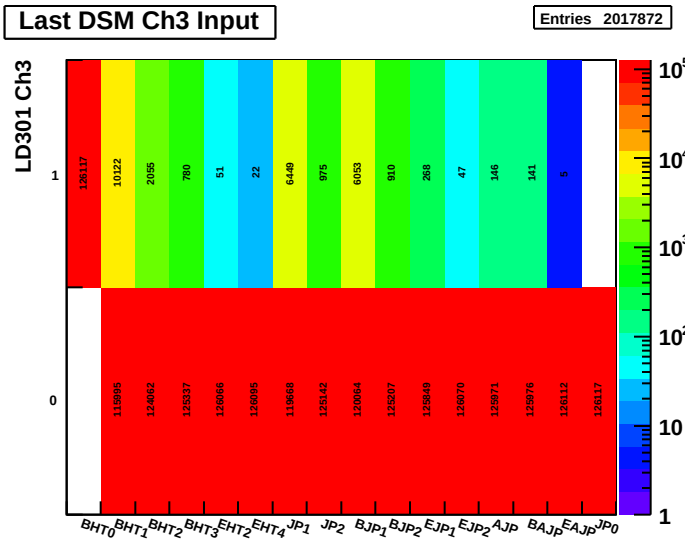

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

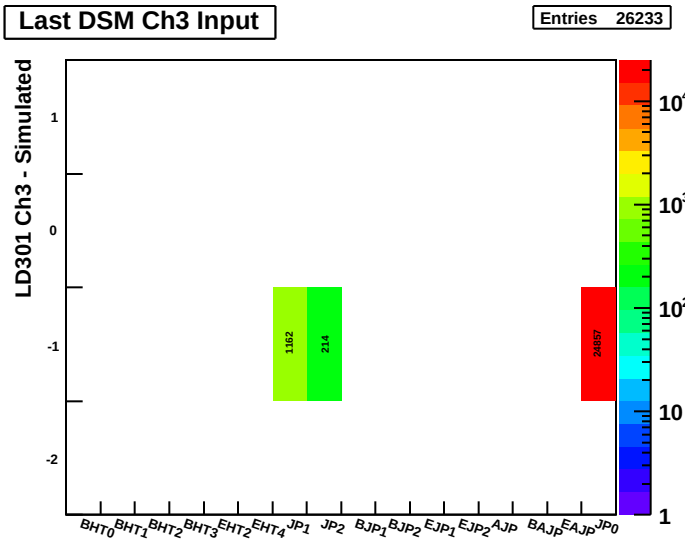

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1008936
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

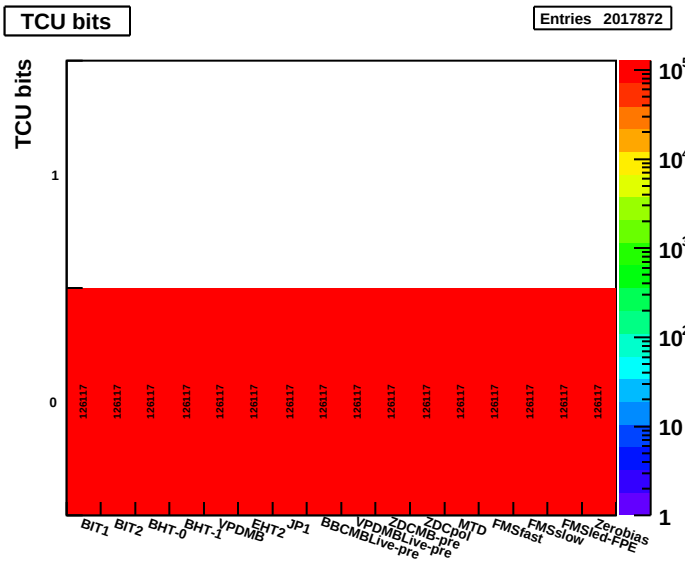

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

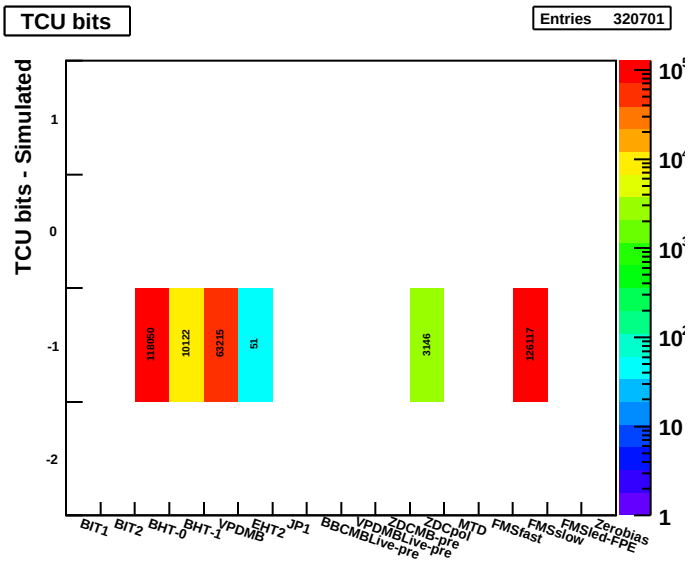

EMC L2 Input - HT23 bits
Entries 1008936
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

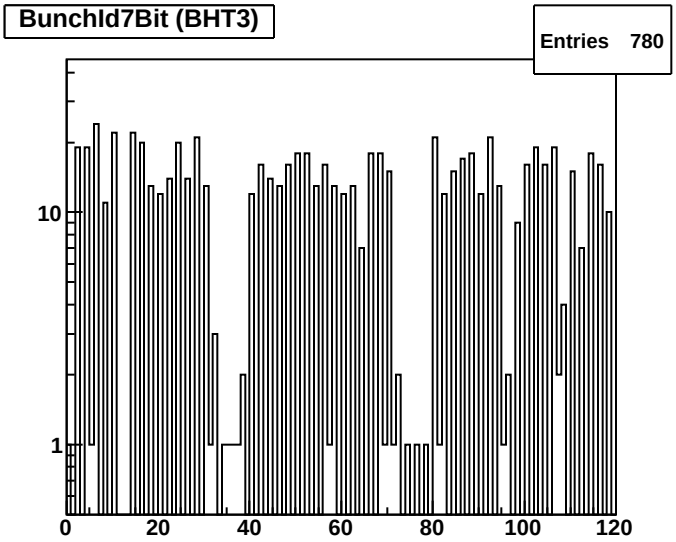

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

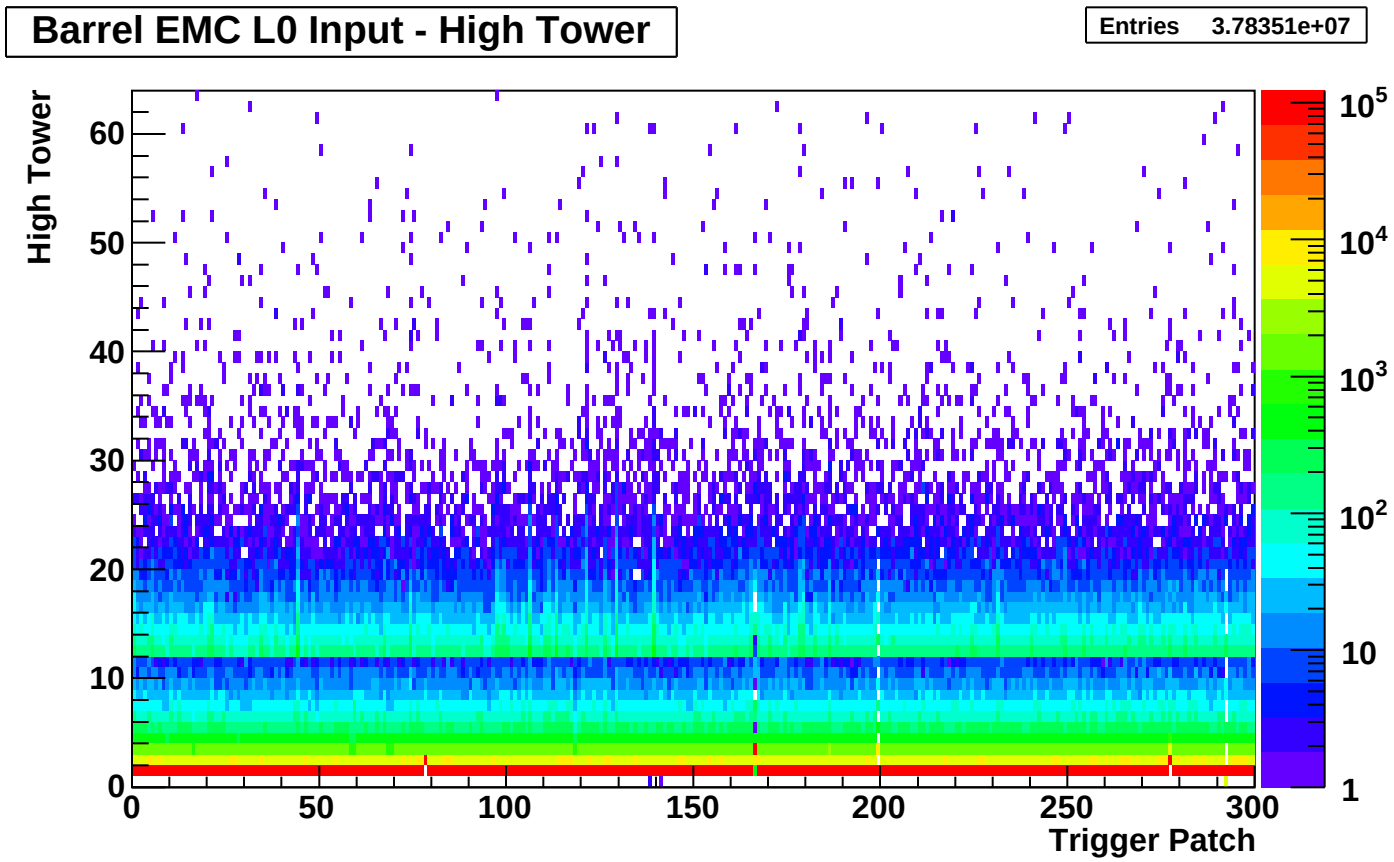

Last DSM Ch3 Input
Entries 2017872
LD301 Ch3
126117 10122 2055 780 51 22 6449 975 6053 810 268 47 146 141 5
115995 124062 125337 126066 126095 119668 125142 120064 125207 125849 126070 125971 125976 126112 126117
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

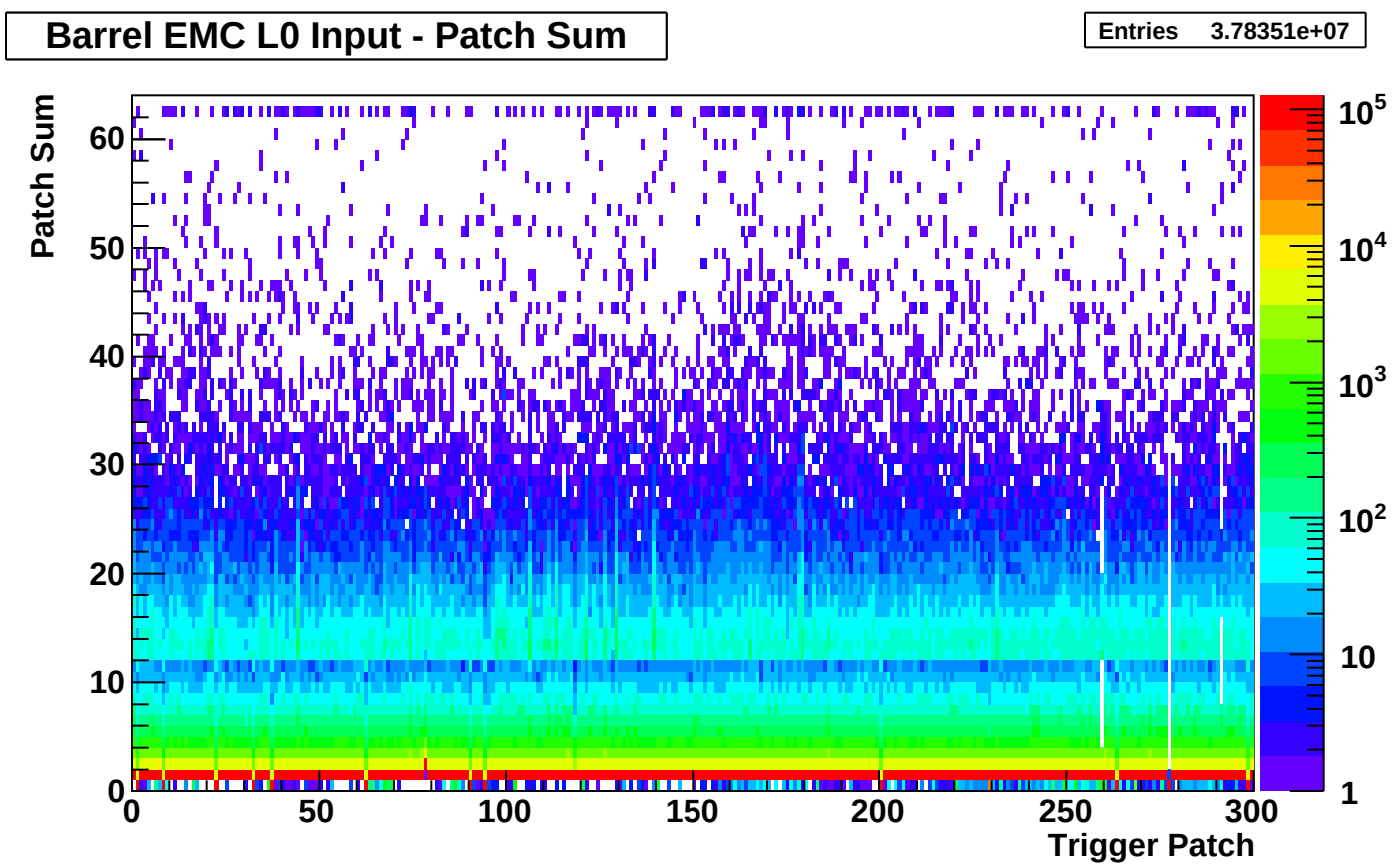

Last DSM Ch3 Input
Entries 26233
LD301 Ch3 - Simulated
1162 214 24857
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

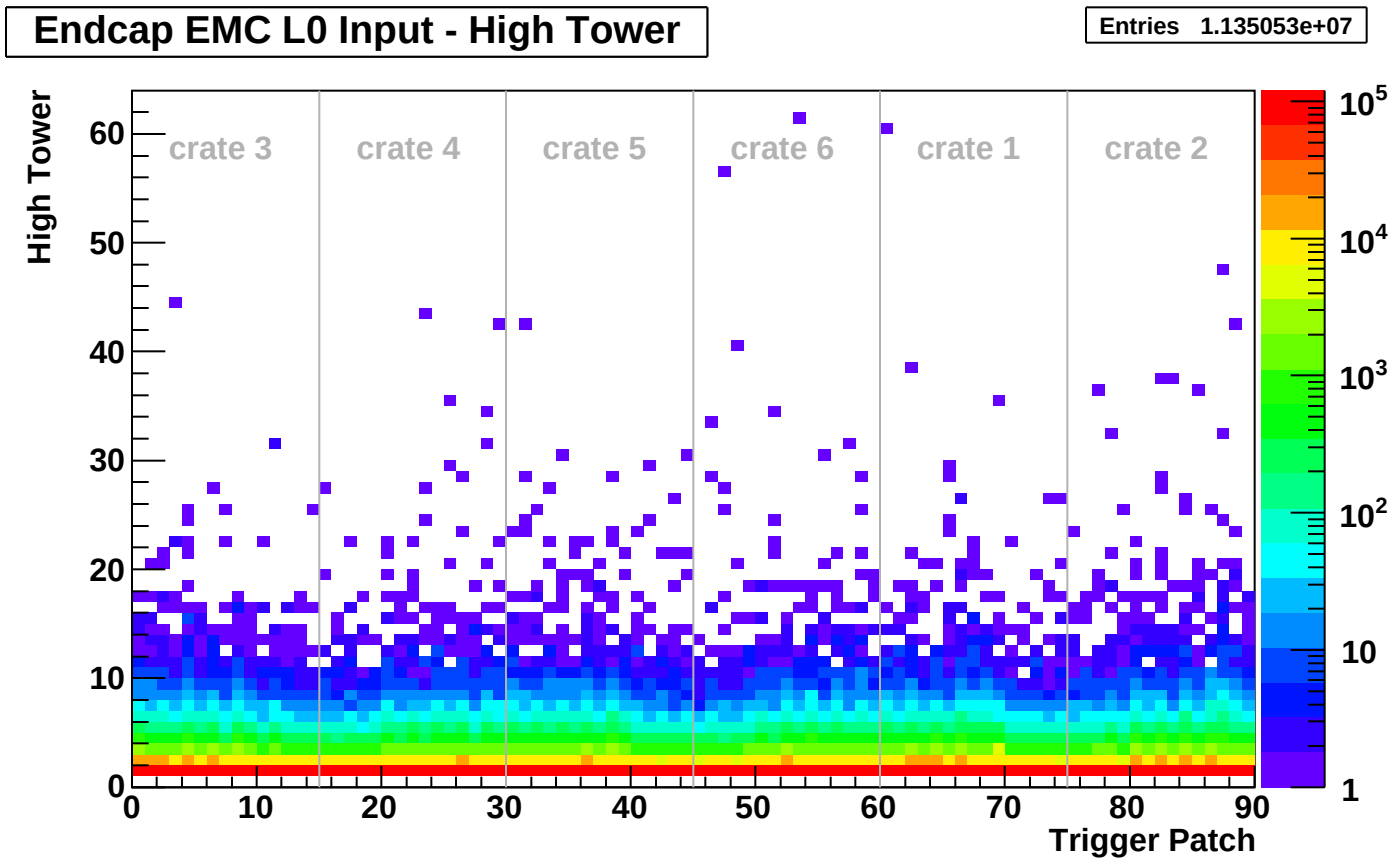

TCU bits
Entries 2017872
TCU bits
126117
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

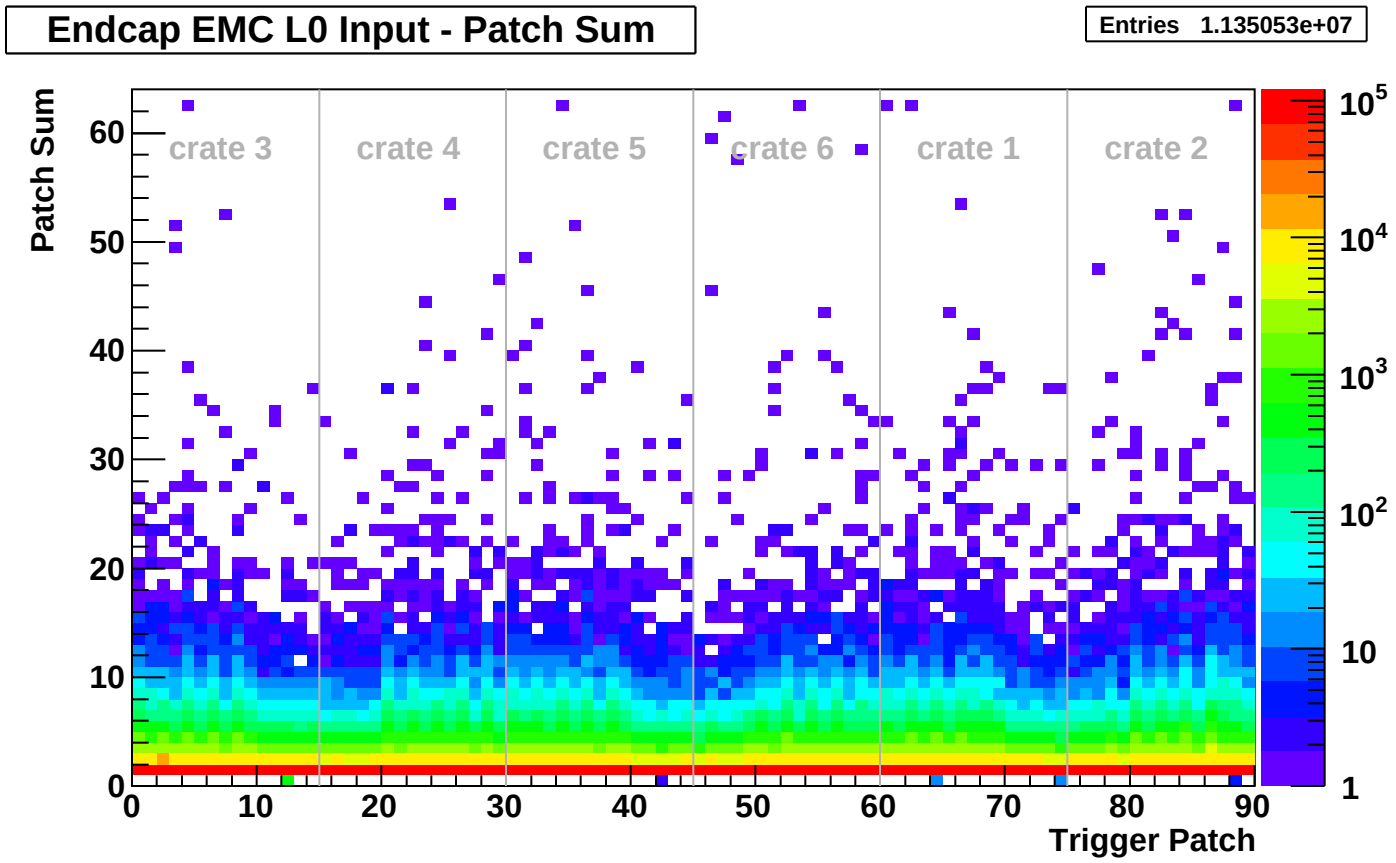

TCU bits
Entries 320701
TCU bits - Simulated
118050 10122 63215 51 3146 126117
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

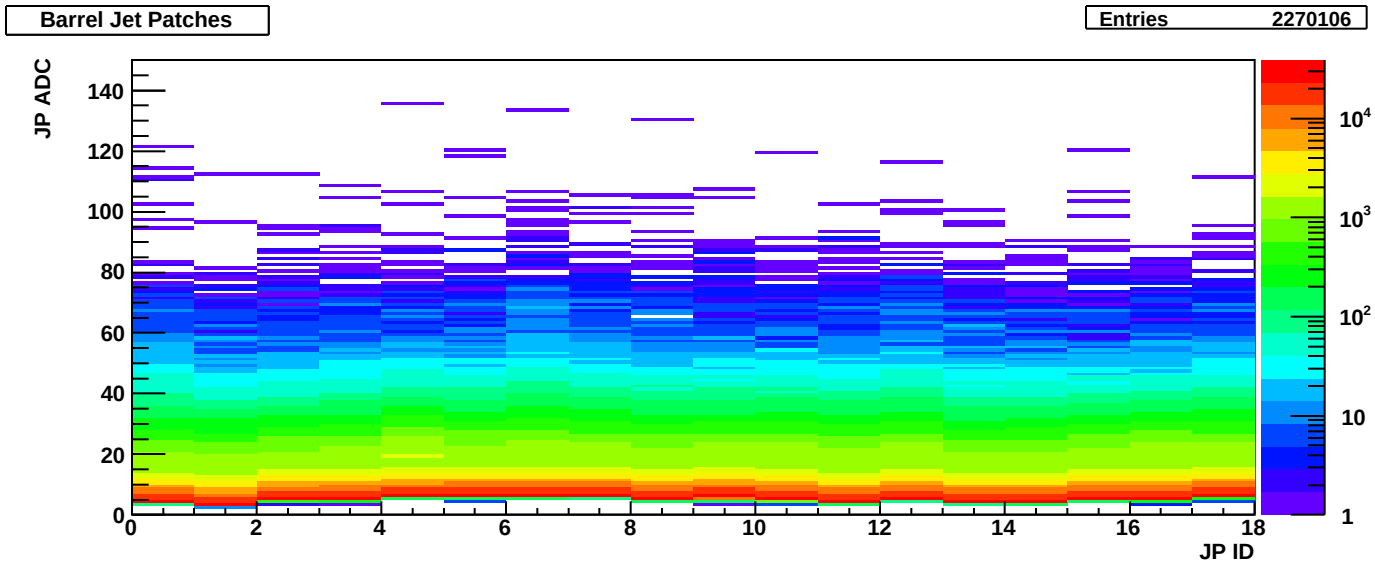

BunchId7Bit (BHT3)
Entries 780
0 20 40 60 80 100 120

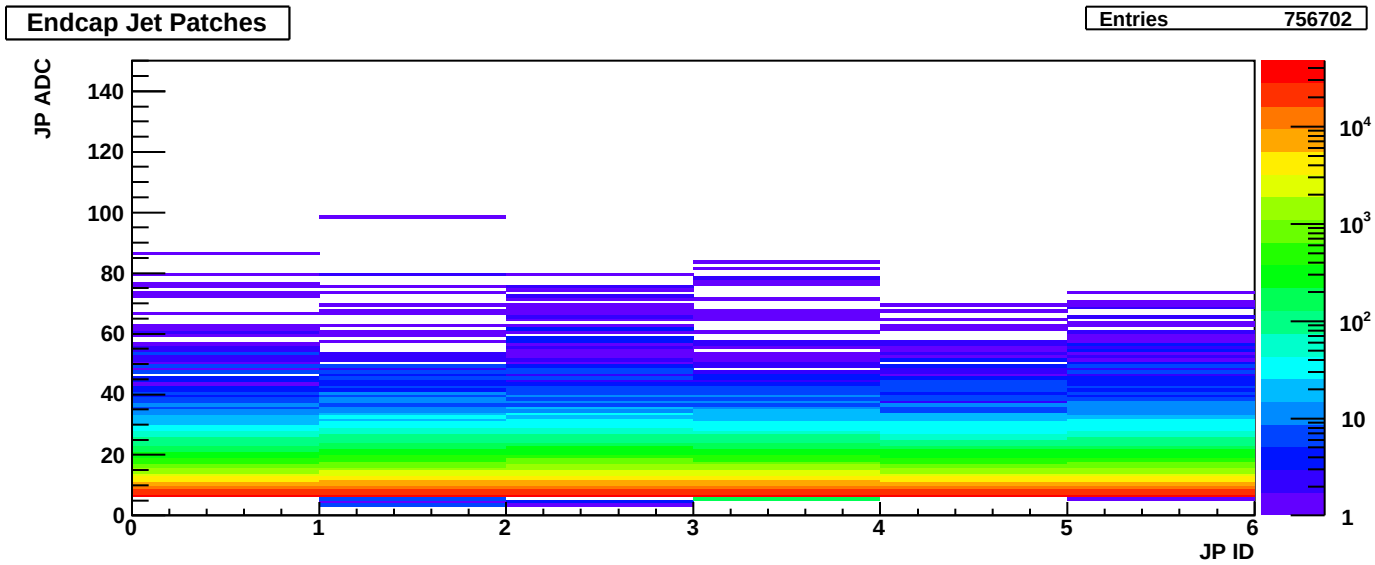

Barrel EMC L0 Input - High Tower
Entries 3.78351e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

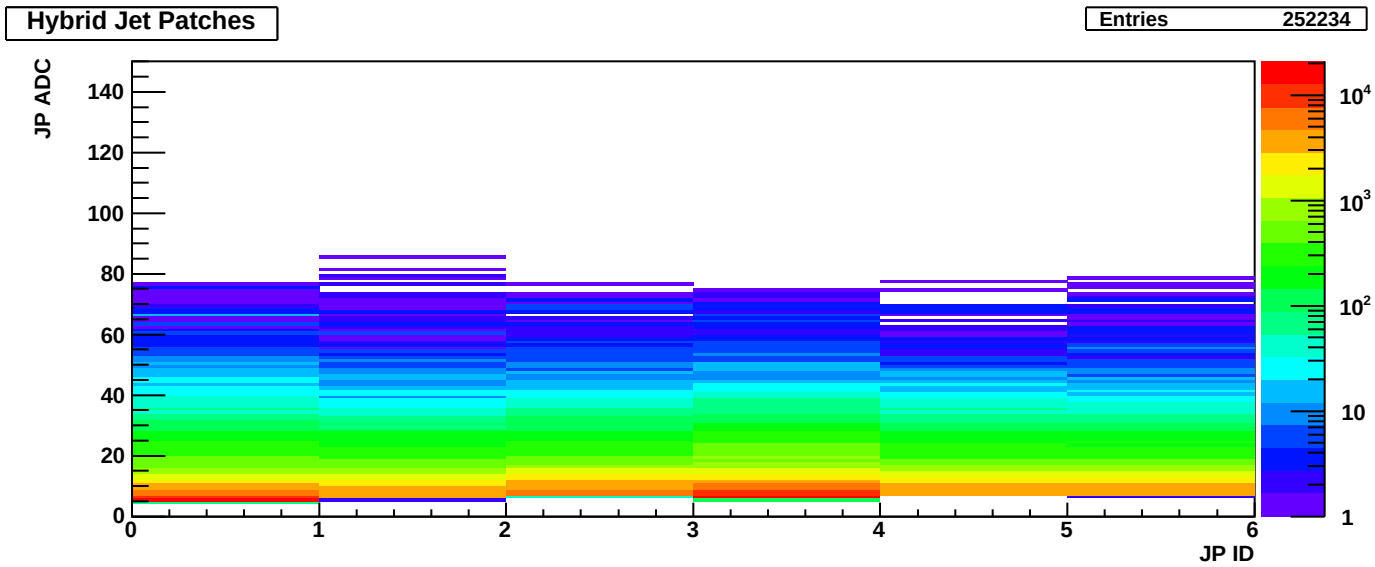

Barrel EMC L0 Input - Patch Sum
Entries 3.78351e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

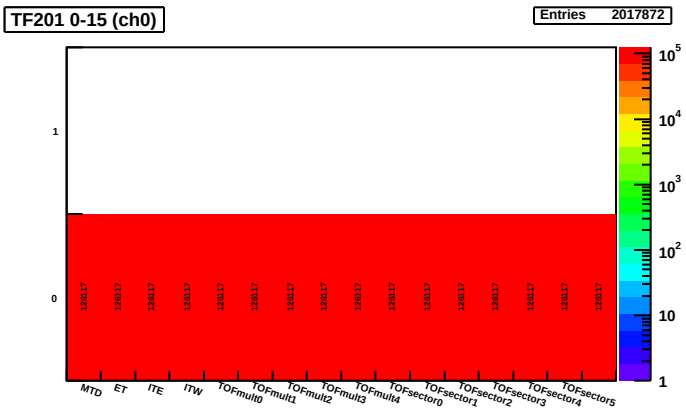

Endcap EMC L0 Input - High Tower
Entries 1.135053e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

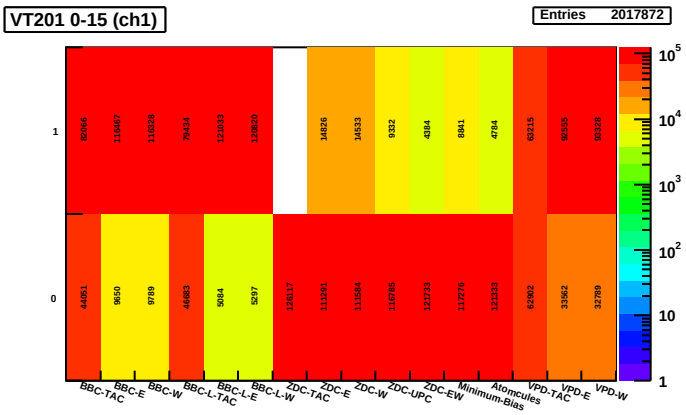

Endcap EMC L0 Input - Patch Sum
Entries 1.135053e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

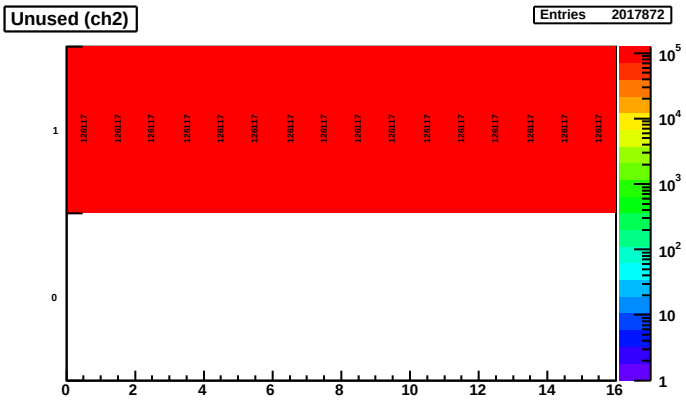

Barrel Jet Patches
Entries 2270106
JP ADC
JP ID

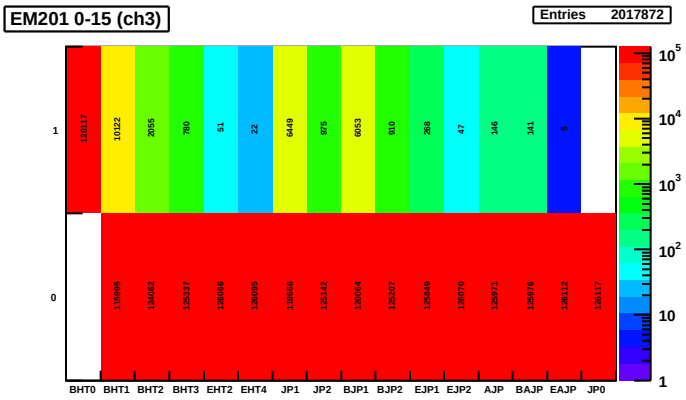

Endcap Jet Patches
Entries 756702
JP ADC
JP ID

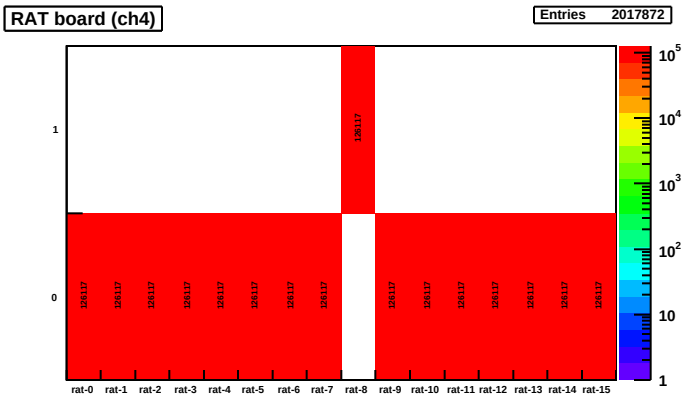

Hybrid Jet Patches
Entries 252234
JP ADC
JP ID

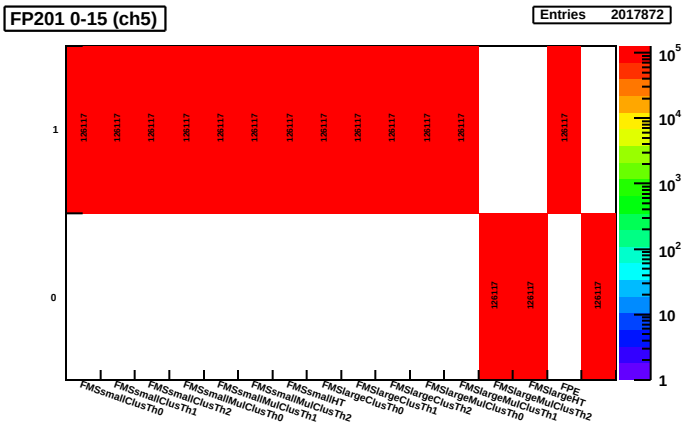

TF201 0-15 (ch0)
Entries 2017872
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

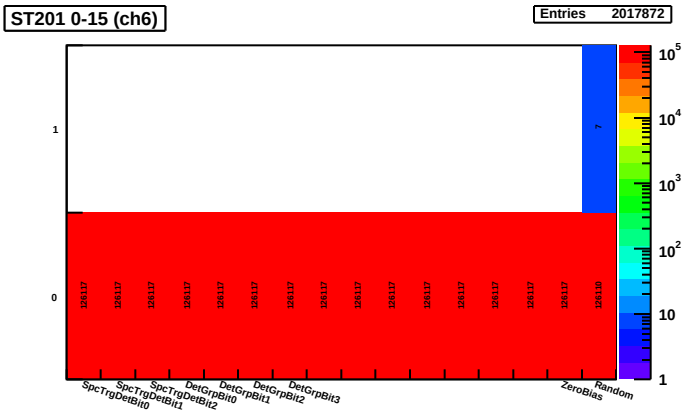

VT201 0-15 (ch1)
Entries 2017872
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

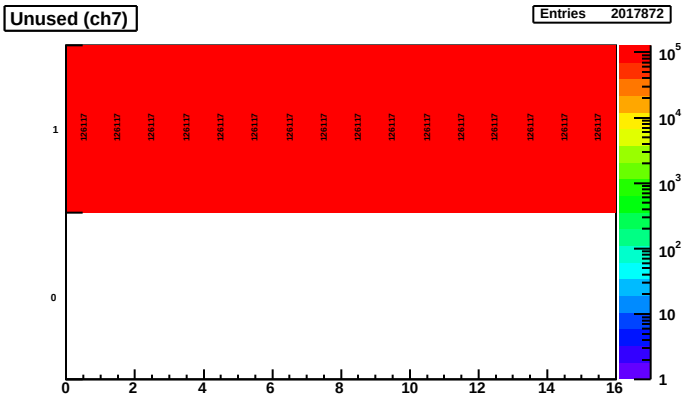

Unused (ch2)
Entries 2017872

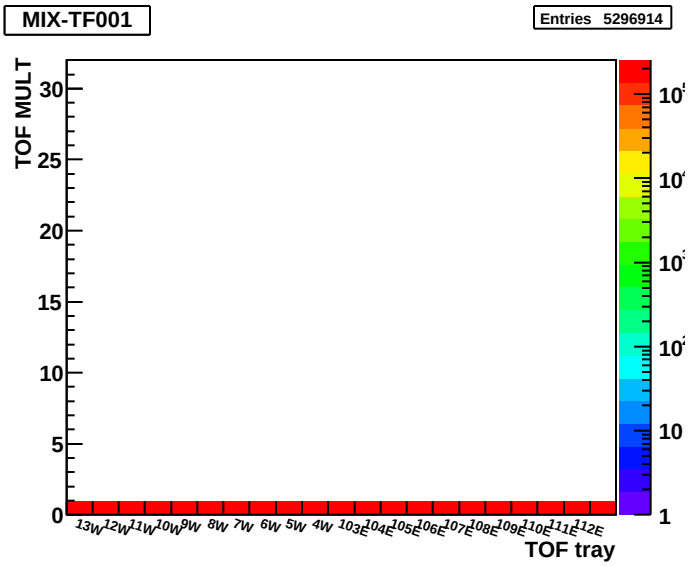

EM201 0-15 (ch3)
Entries 2017872
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

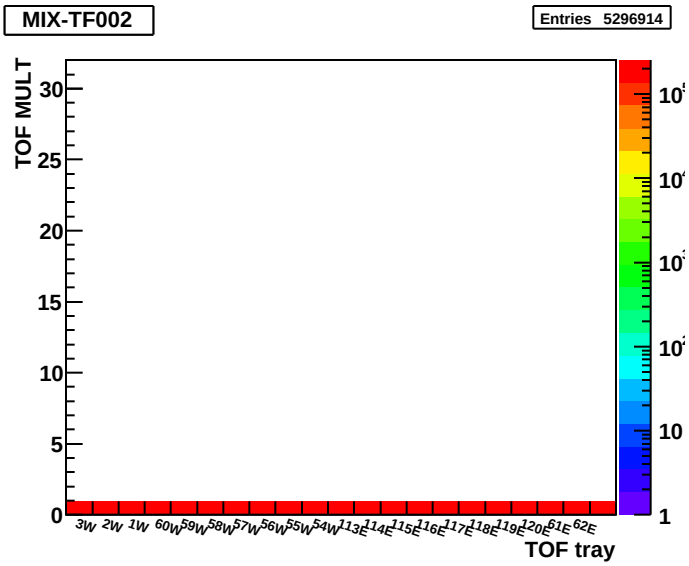

RAT board (ch4)
Entries 2017872
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

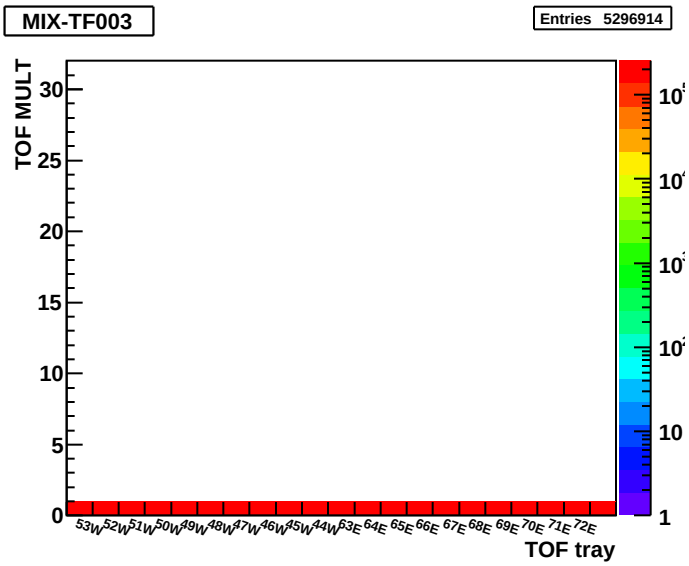

FP201 0-15 (ch5)
Entries 2017872
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

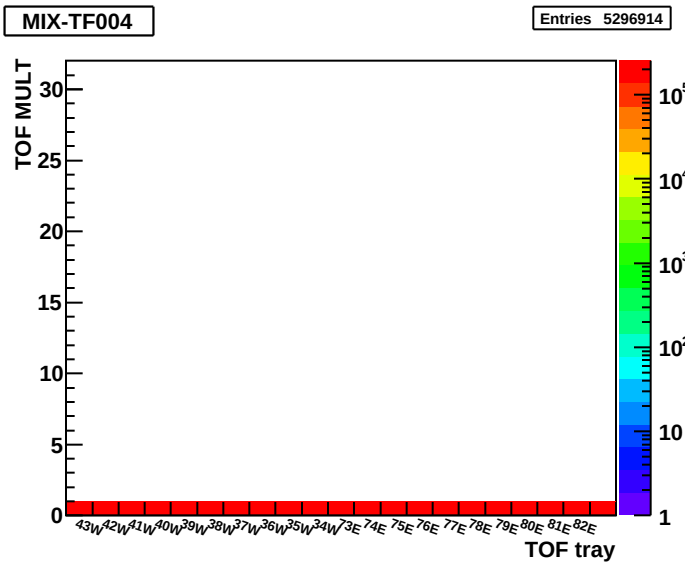

ST201 0-15 (ch6)
Entries 2017872
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetCrpBit0
DetCrpBit1
DetCrpBit2
DetCrpBit3
ZeroBias
Random

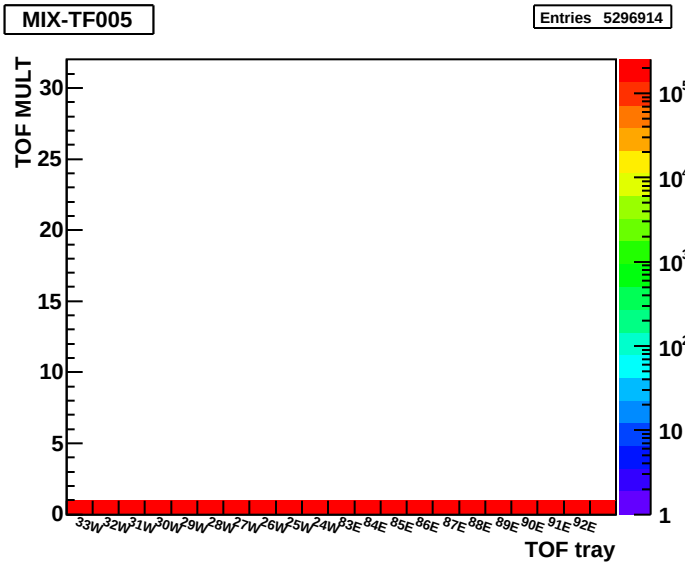

Unused (ch7)
Entries 2017872

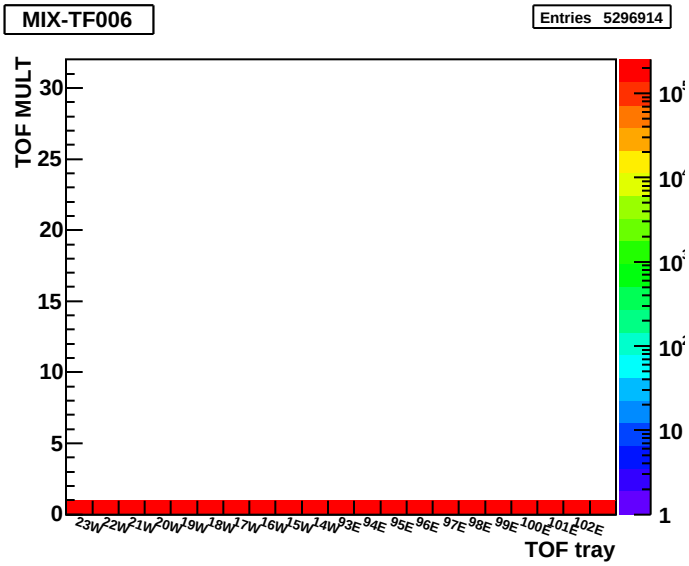

MIX-TF001
Entries 5296914
TOF MULT
TOF tray

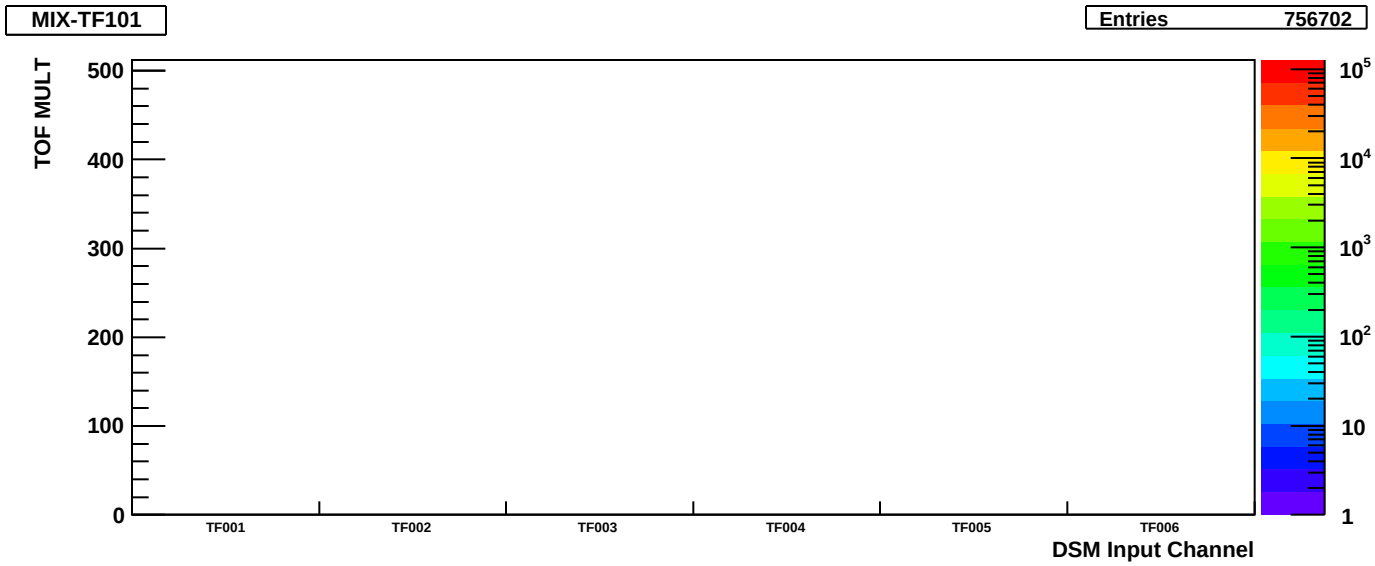

MIX-TF002
Entries 5296914
TOF MULT
TOF tray

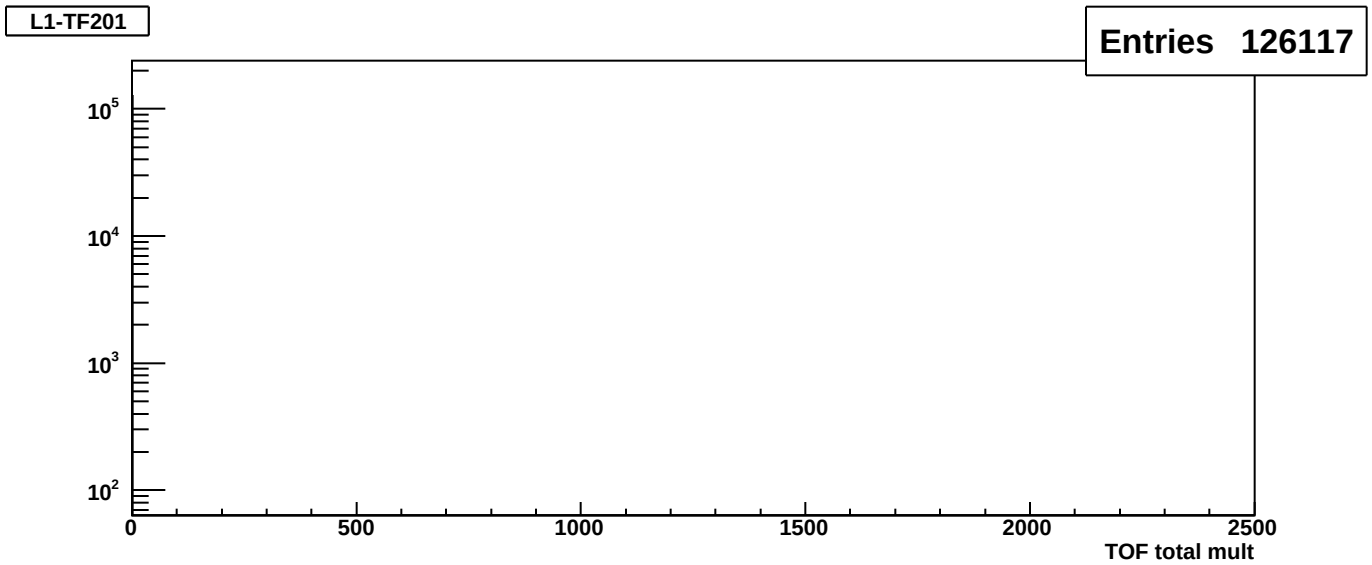

MIX-TF003
Entries 5296914
TOF MULT
TOF tray

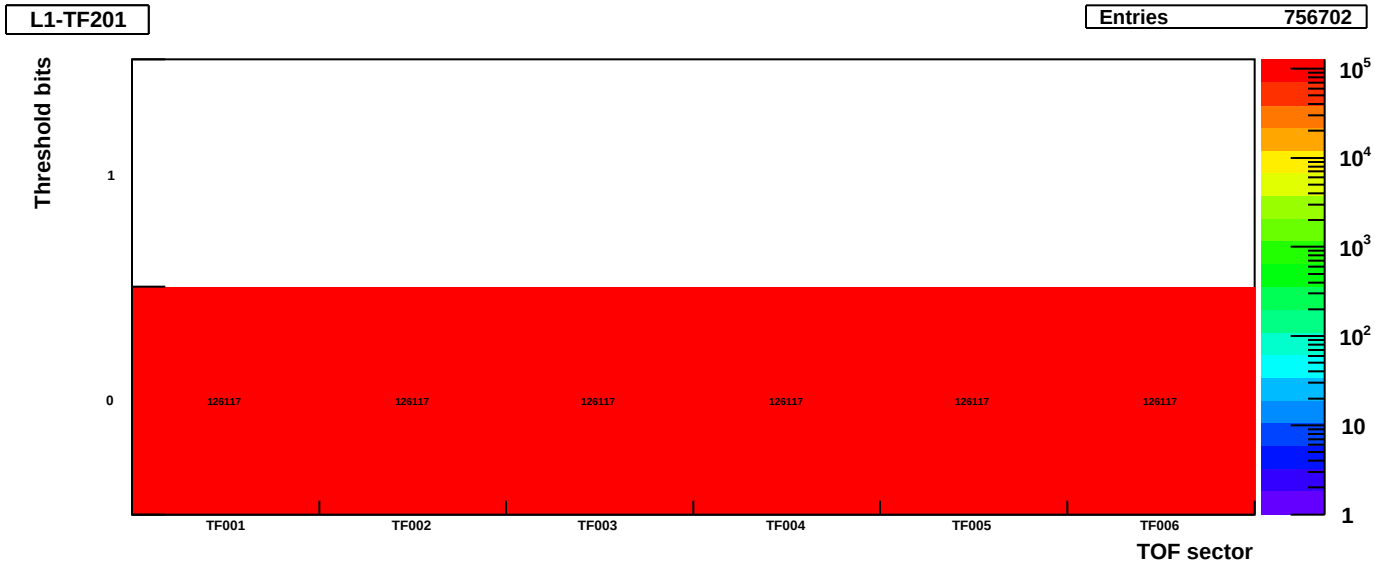

MIX-TF004
Entries 5296914
TOF MULT
TOF tray

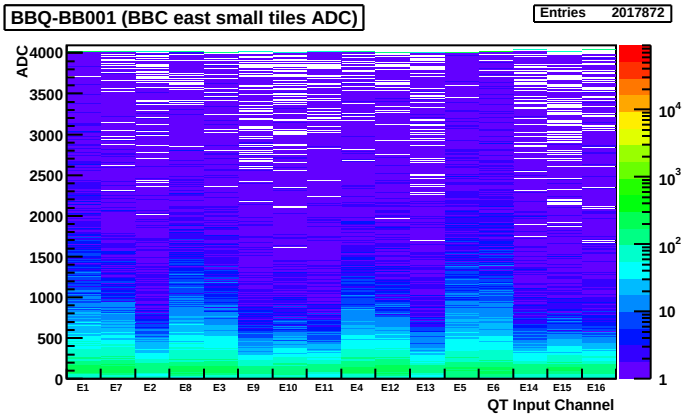

MIX-TF005
Entries 5296914
TOF MULT
TOF tray

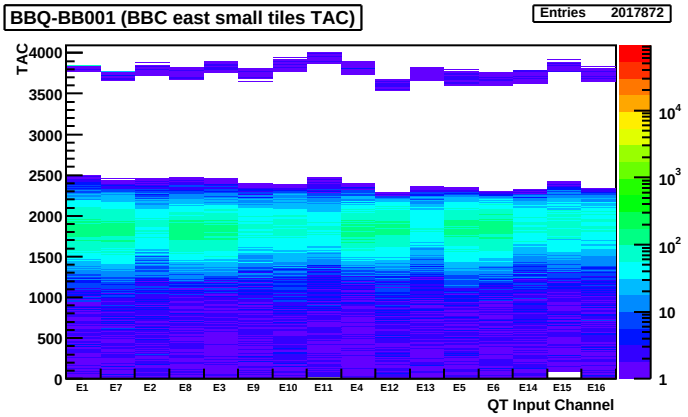

MIX-TF006
Entries 5296914
TOF MULT
TOF tray

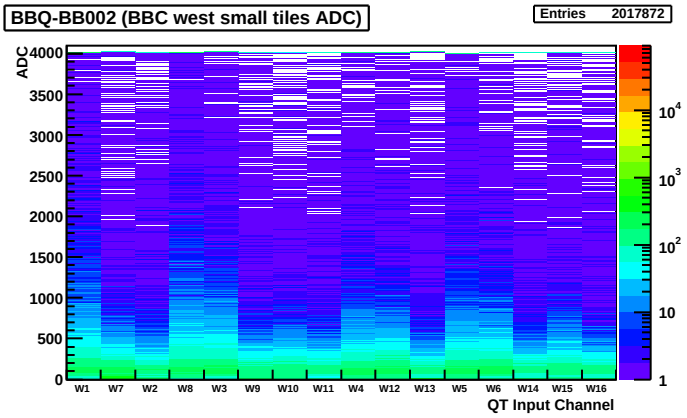

MIX-TF101
Entries 756702
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

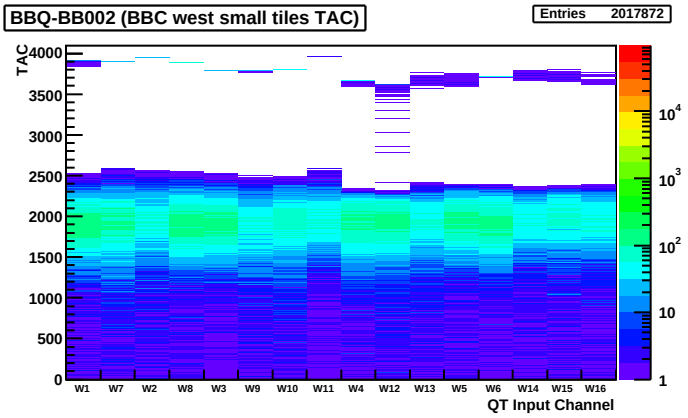

L1-TF201
Entries 126117
10^5
10^4
10^3
10^2
0
500
1000
1500
2000
2500
TOF total mult

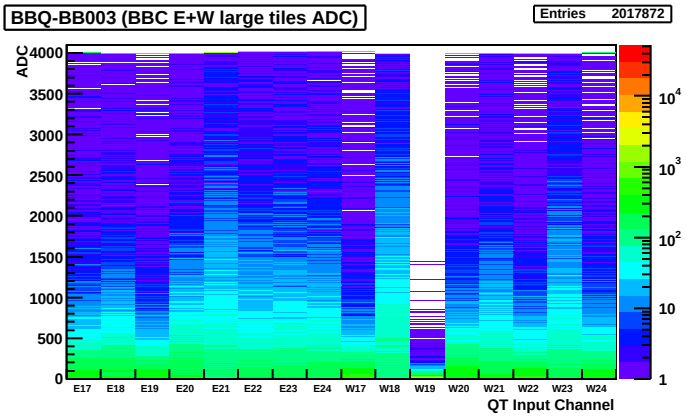

L1-TF201
Entries 756702
Threshold bits
1
0
126117
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2
10
1

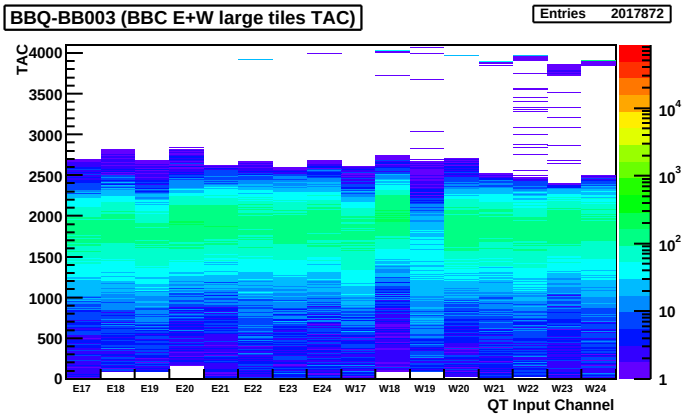

BBQ-BB001 (BBC east small tiles ADC)
Entries 2017872
ADC
QT Input Channel

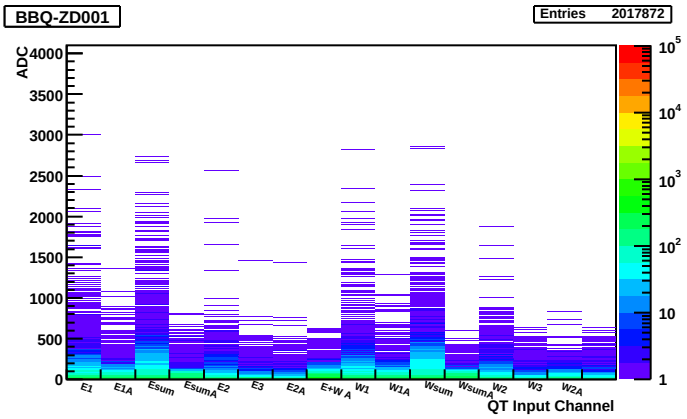

BBQ-BB001 (BBC east small tiles TAC)
Entries 2017872
TAC
QT Input Channel

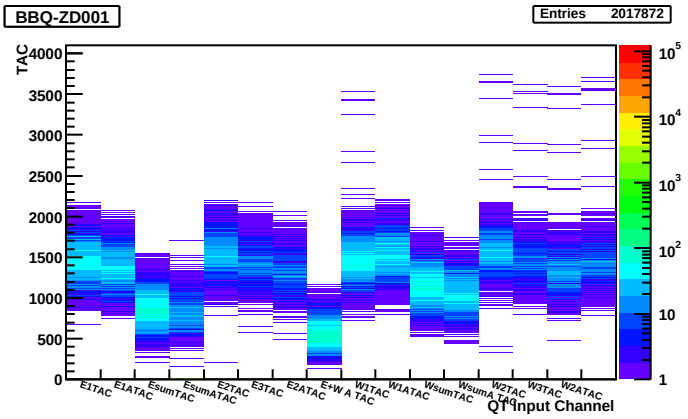

BBQ-BB002 (BBC west small tiles ADC)
Entries 2017872
ADC
QT Input Channel

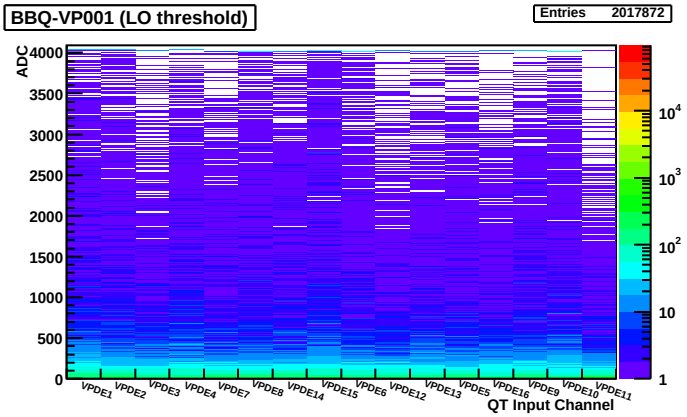

BBQ-BB002 (BBC west small tiles TAC)
Entries 2017872
TAC
QT Input Channel

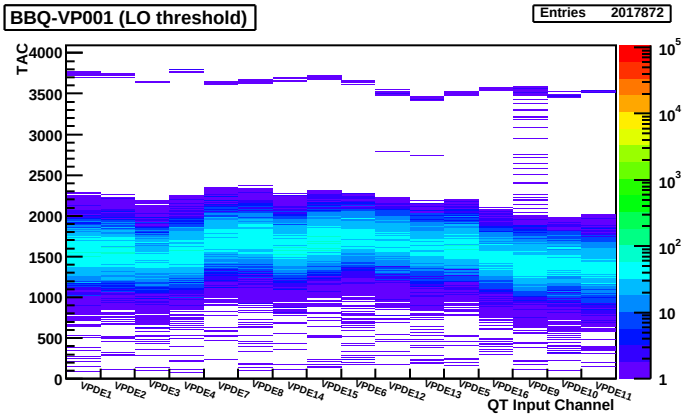

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2017872
ADC
QT Input Channel

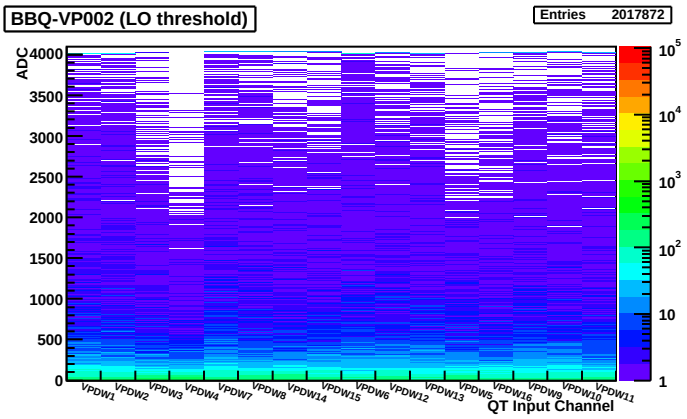

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2017872
TAC
QT Input Channel

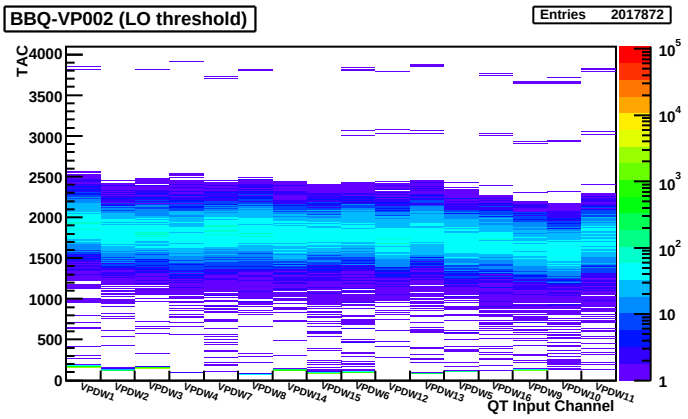

BBQ-ZD001
Entries 2017872
ADC
QT Input Channel

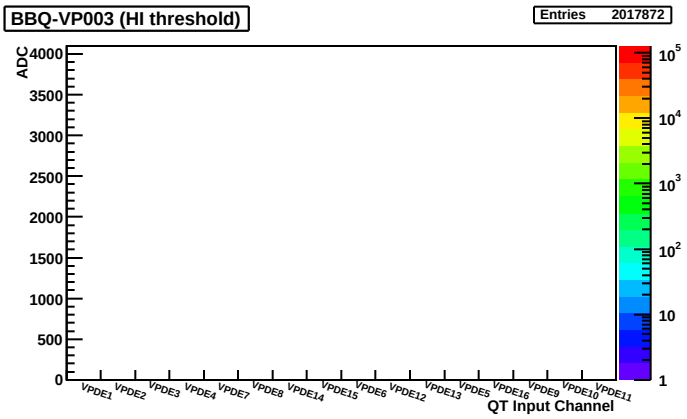

BBQ-ZD001
Entries 2017872
TAC
QT Input Channel

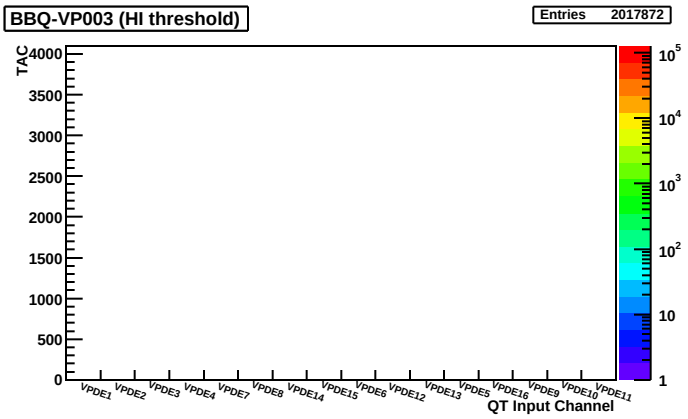

BBQ-VP001 (LO threshold)
Entries 2017872
ADC
QT Input Channel

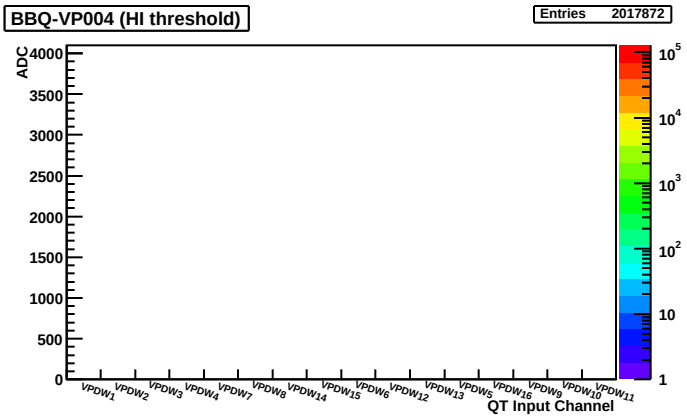

BBQ-VP001 (LO threshold)
Entries 2017872
TAC
QT Input Channel

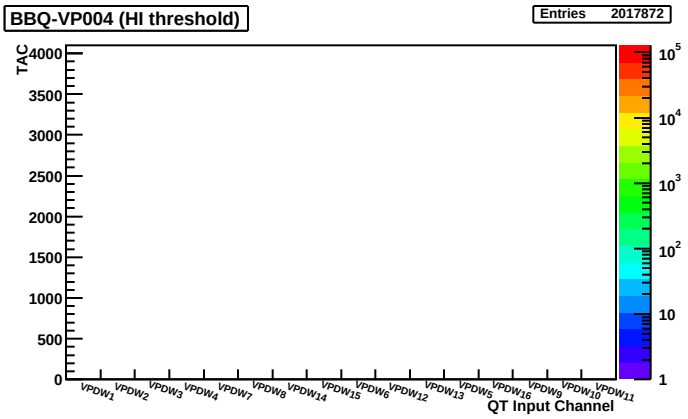

BBQ-VP002 (LO threshold)
Entries 2017872
ADC
QT Input Channel

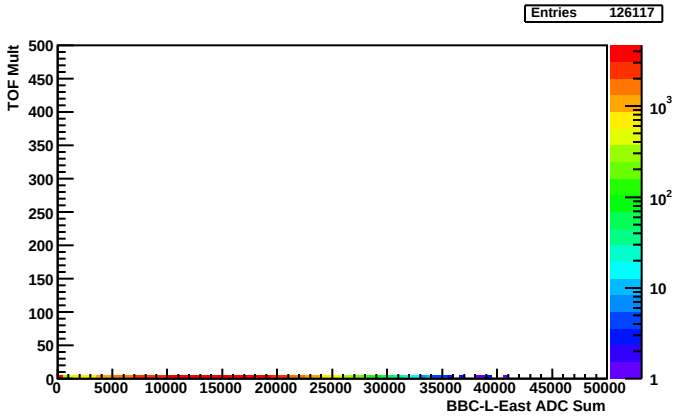

BBQ-VP002 (LO threshold)
Entries 2017872
TAC
QT Input Channel

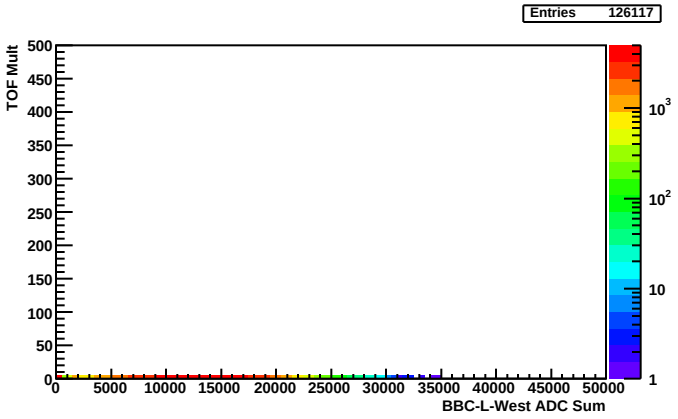

BBQ-VP003 (HI threshold)
Entries 2017872
ADC
QT Input Channel

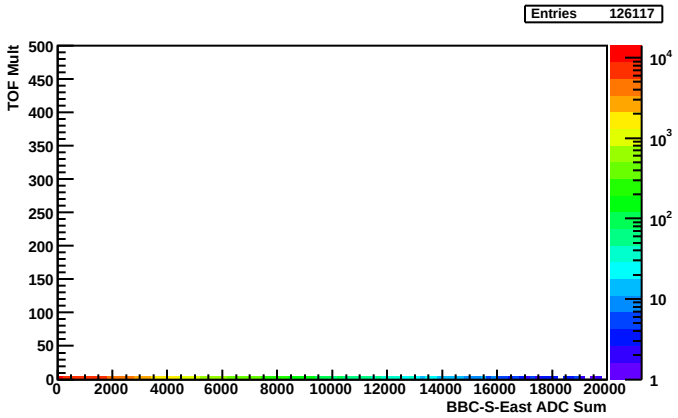

BBQ-VP003 (HI threshold)
Entries 2017872
TAC
QT Input Channel

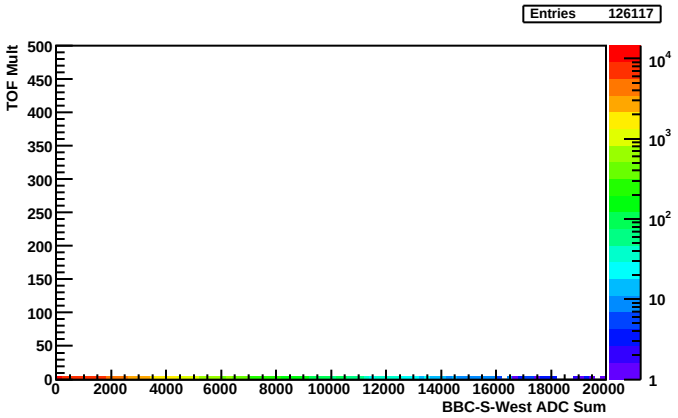

BBQ-VP004 (HI threshold)
Entries 2017872
ADC
QT Input Channel

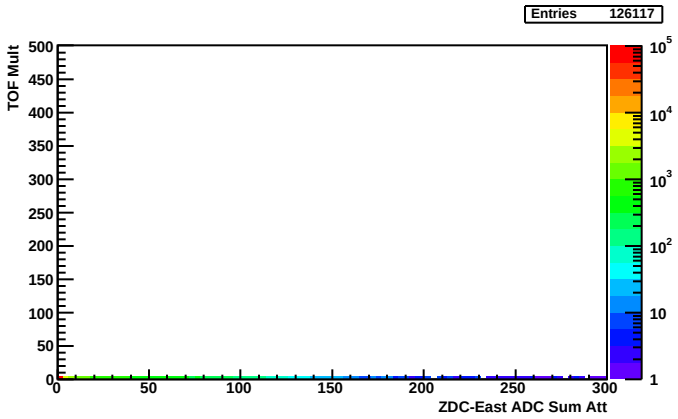

BBQ-VP004 (HI threshold)
Entries 2017872
TAC
QT Input Channel

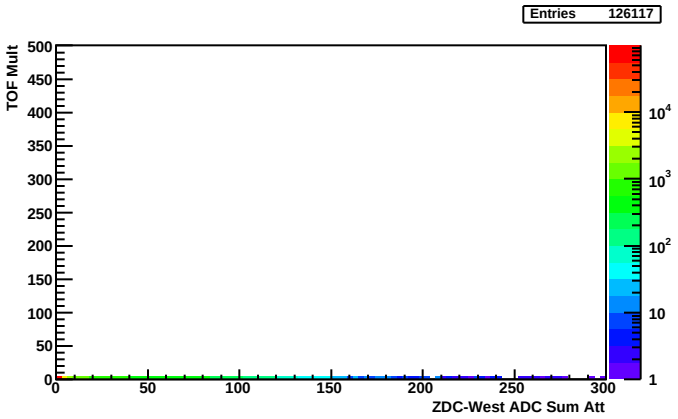

Entries 126117
TOF Mult
BBC-L-East ADC Sum

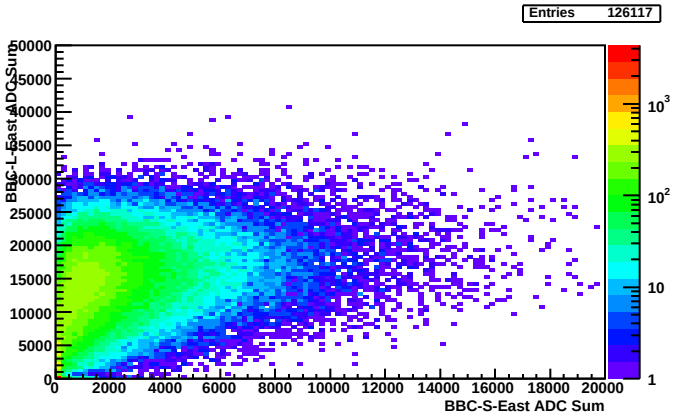

Entries 126117
TOF Mult
BBC-L-West ADC Sum

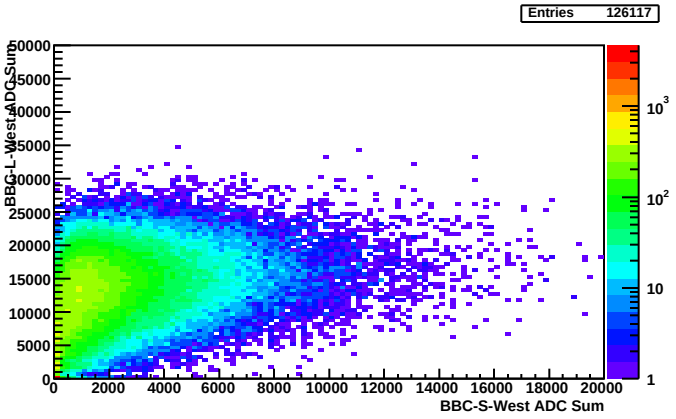

Entries 126117
TOF Mult
BBC-S-East ADC Sum

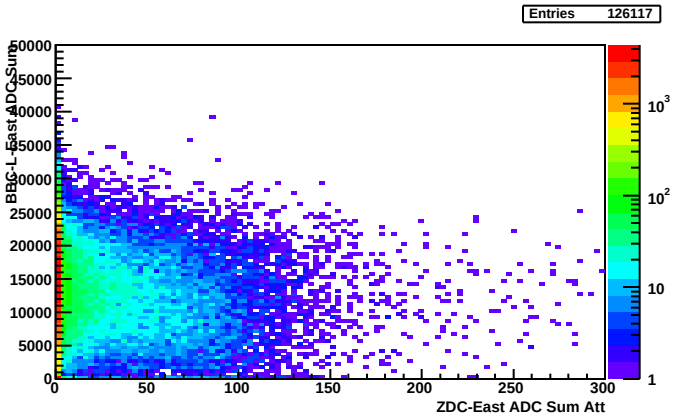

Entries 126117
TOF Mult
BBC-S-West ADC Sum

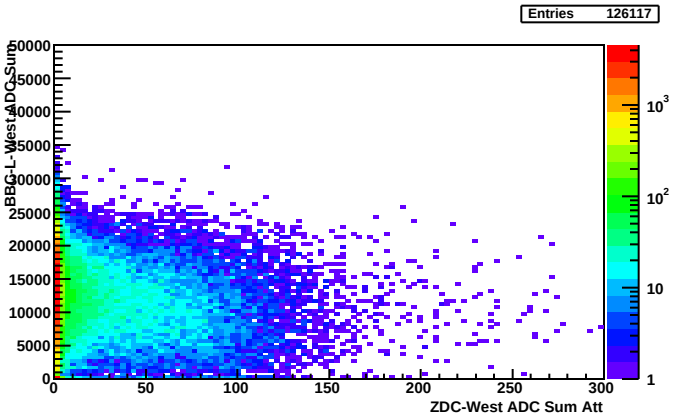

Entries 126117
TOF Mult
ZDC-East ADC Sum Att

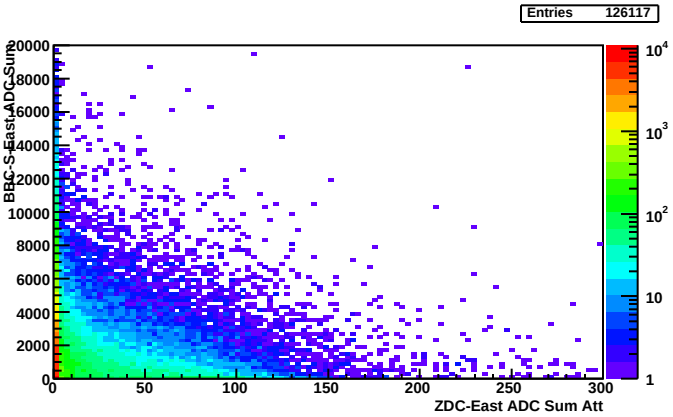

Entries 126117
TOF Mult
ZDC-West ADC Sum Att

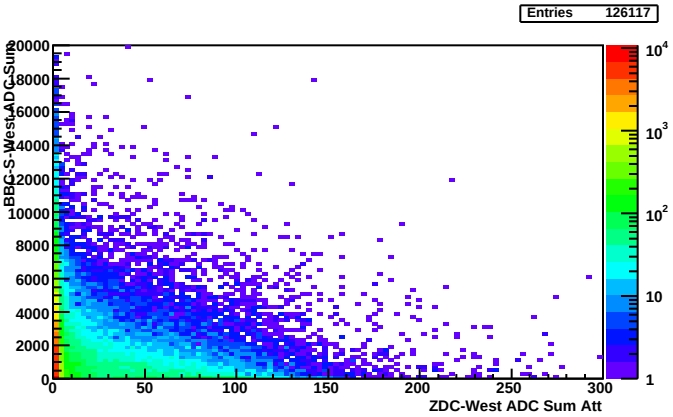

Entries 126117
BBC-L-East ADC Sum
BBC-S-East ADC Sum

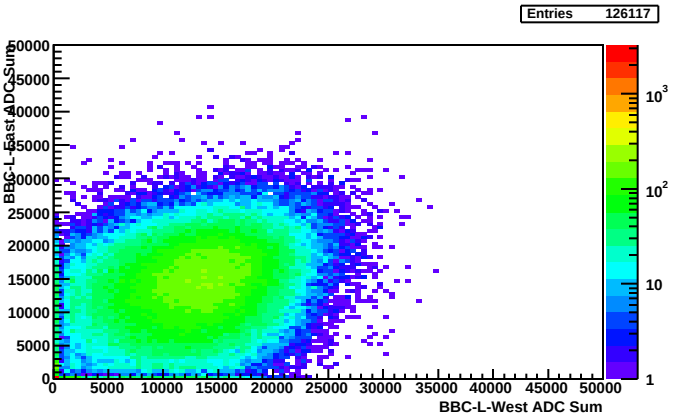

Entries 126117
BBC-L-West ADC Sum
BBC-S-West ADC Sum

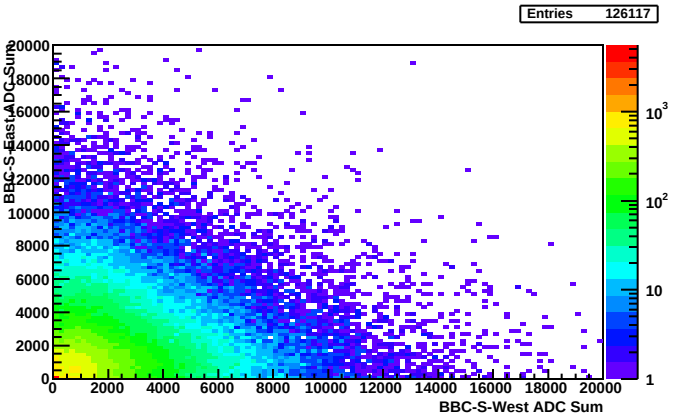

Entries 126117
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

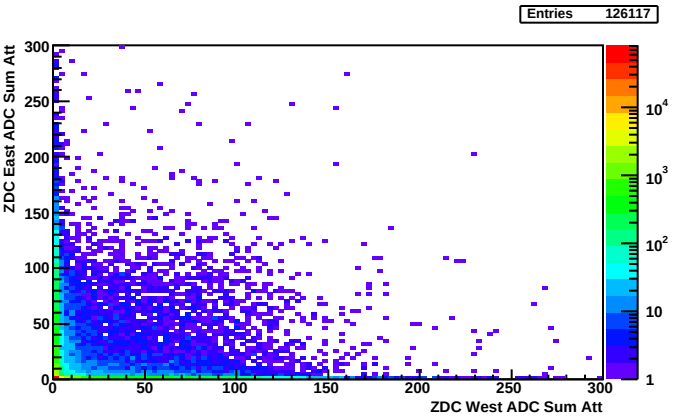

Entries 126117
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

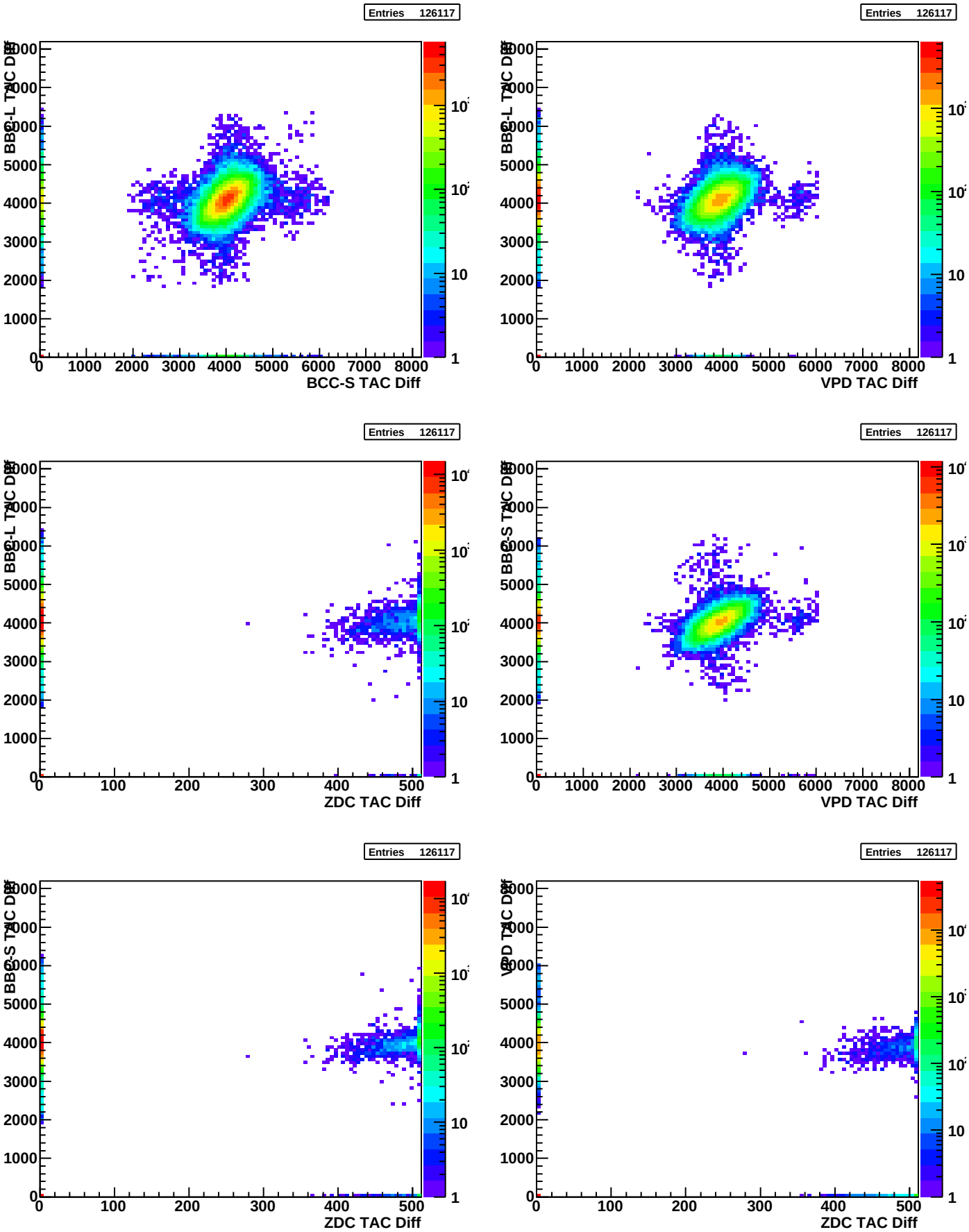

Entries 126117
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

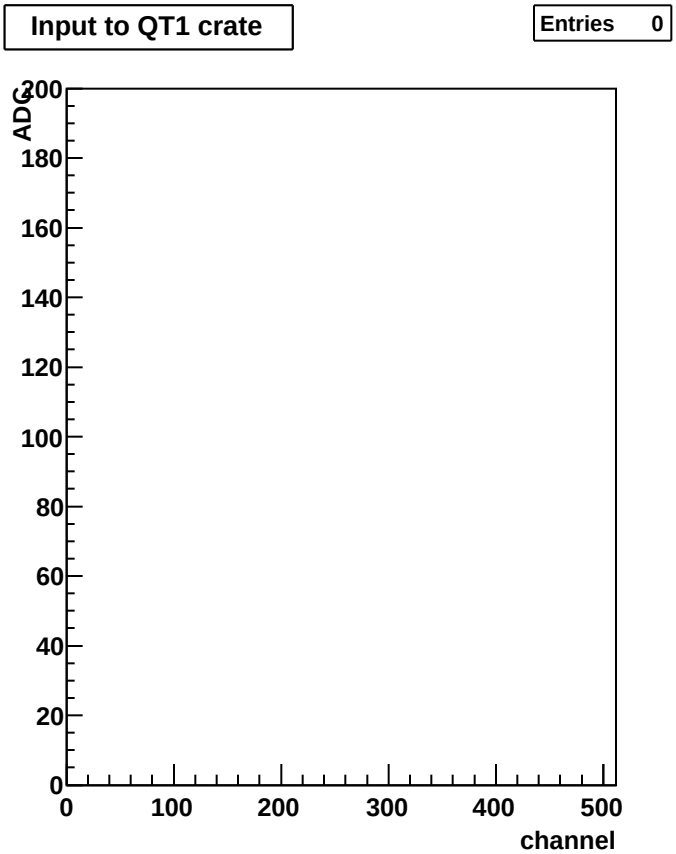

Entries 126117
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

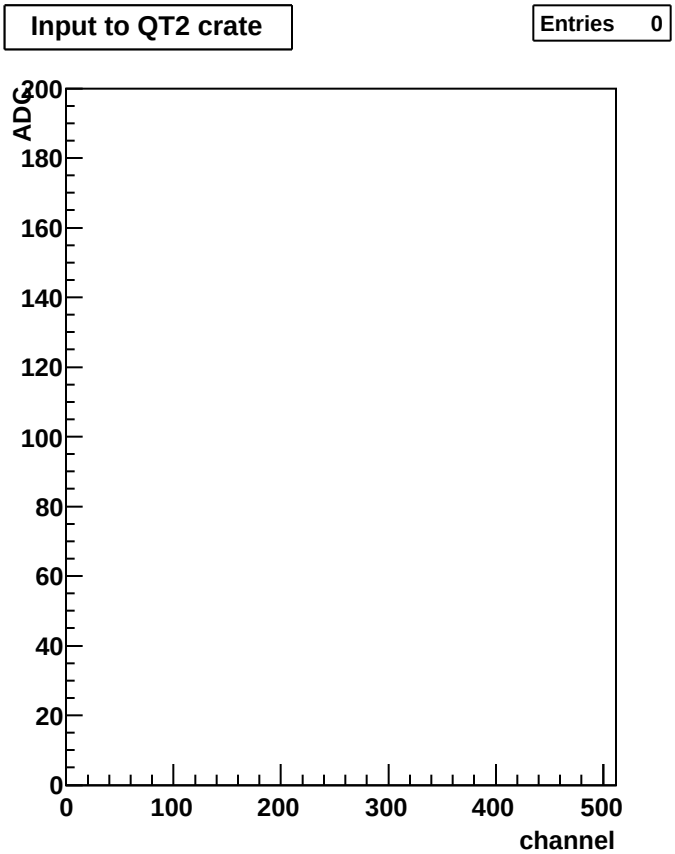

Entries 126117
BBC-L-East ADC Sum
BBC-L-West ADC Sum

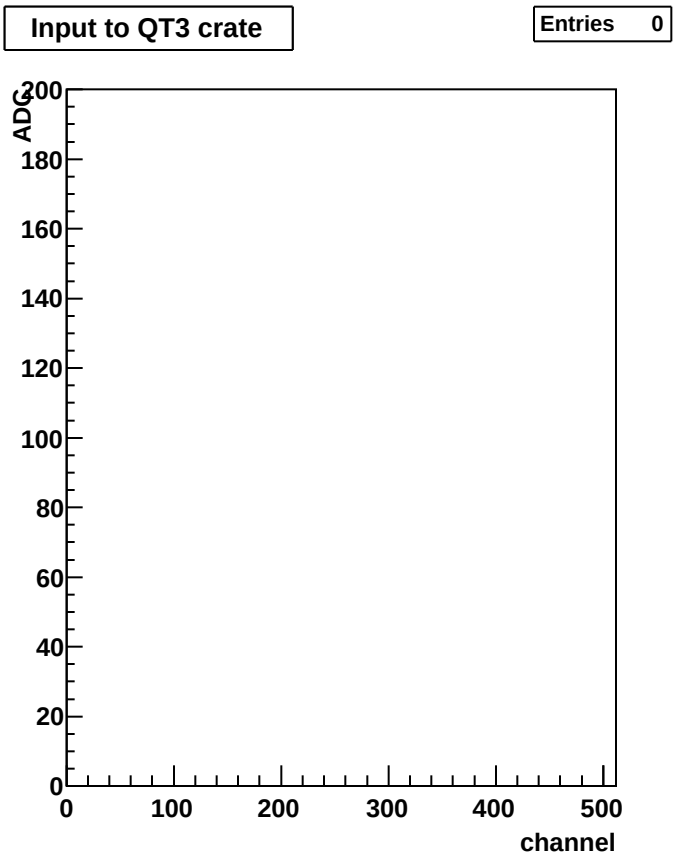

Entries 126117
BBC-S-East ADC Sum
BBC-S-West ADC Sum

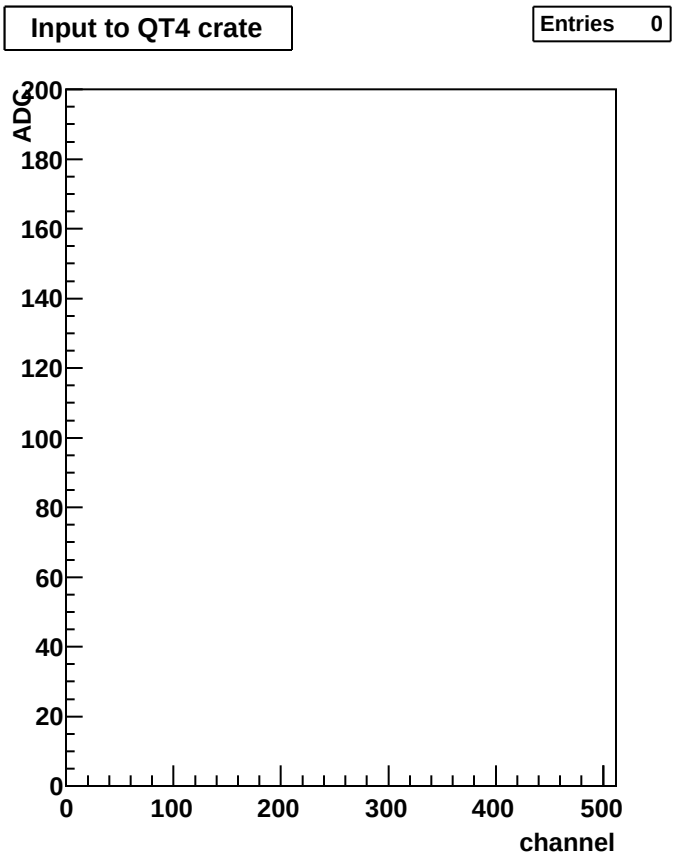

Entries 126117
ZDC East ADC Sum Att
ZDC West ADC Sum Att

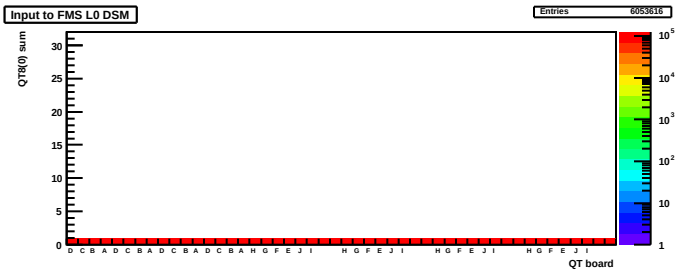

Entries 126117
BBC-L TAC Diff
BCC-S TAC Diff
Entries 126117
BBC-L TAC Diff
VPD TAC Diff
Entries 126117
BBC-L TAC Diff
ZDC TAC Diff
Entries 126117
BBC-S TAC Diff
VPD TAC Diff
Entries 126117
BBC-S TAC Diff
ZDC TAC Diff
Entries 126117
VPD TAC Diff
ZDC TAC Diff

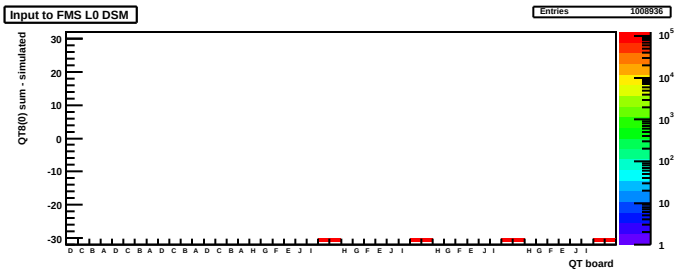

Input to QT1 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

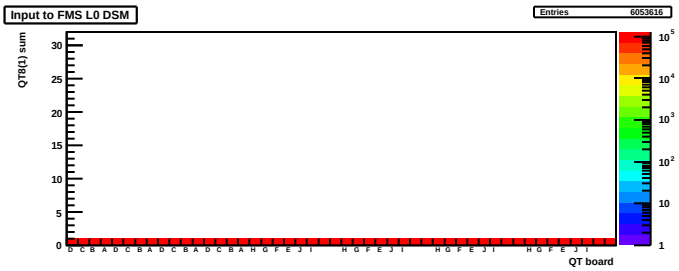

Input to QT2 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

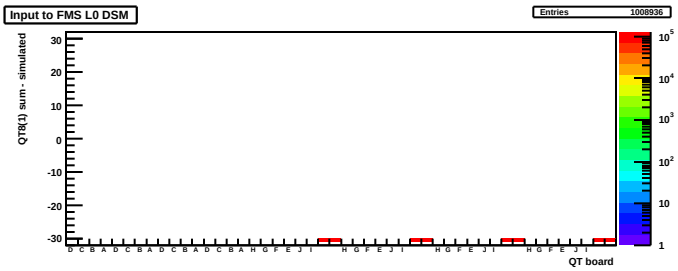

Input to QT3 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

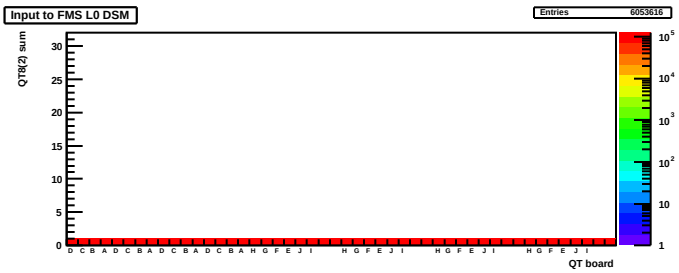

Input to QT4 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

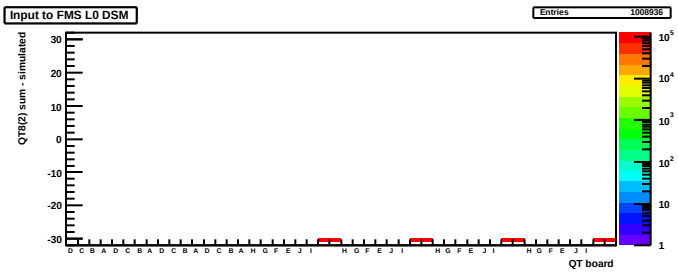

Input to FMS L0 DSM
Entries 6053616
QT8(0) sum
QT board

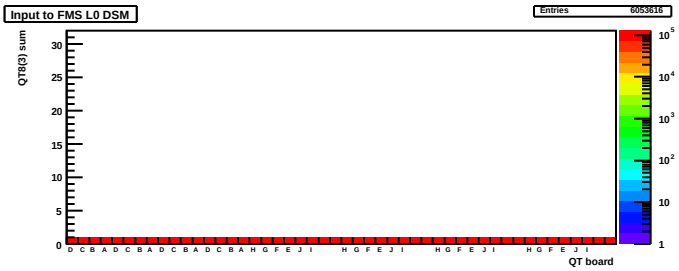

Input to FMS L0 DSM
Entries 1008936
QT8(0) sum - simulated
QT board

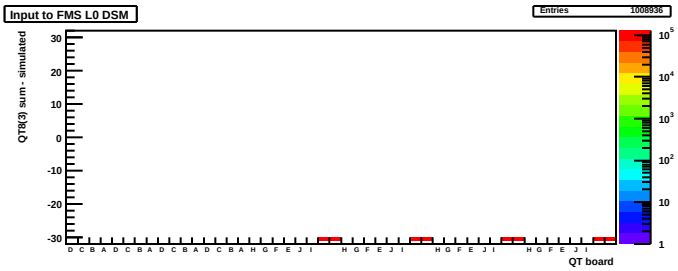

Input to FMS L0 DSM
Entries 6053616
QT8(1) sum
QT board

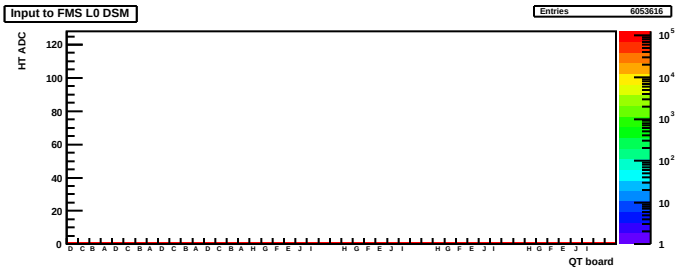

Input to FMS L0 DSM
Entries 1008936
QT8(1) sum - simulated
QT board

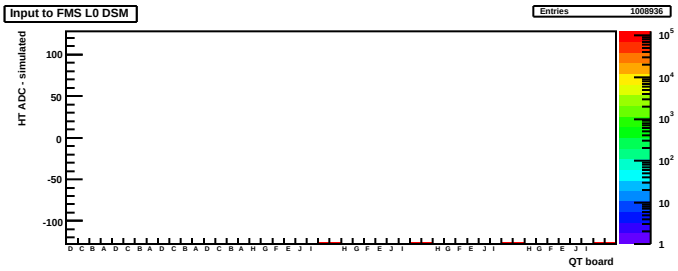

Input to FMS L0 DSM
Entries 6053616
QT8(2) sum
QT board

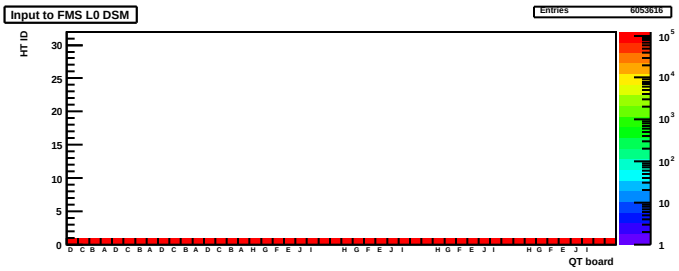

Input to FMS L0 DSM
Entries 1008936
QT8(2) sum - simulated
QT board

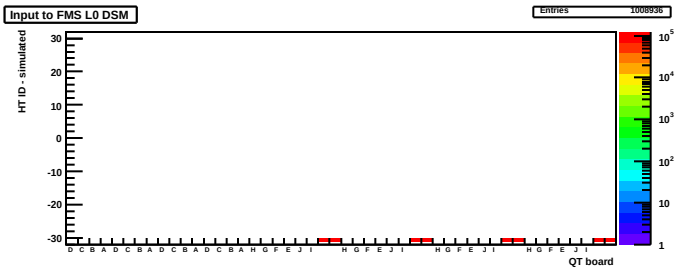

Input to FMS L0 DSM
Entries 6053616
QT8(3) sum
QT board

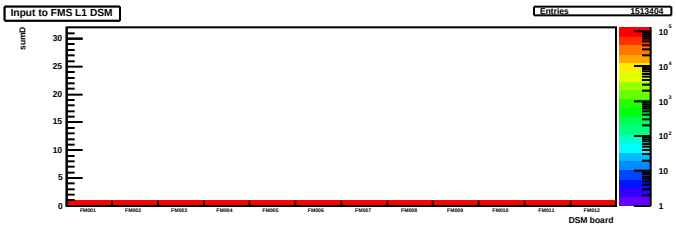

Input to FMS L0 DSM
Entries 1008936
QT8(3) sum - simulated
QT board

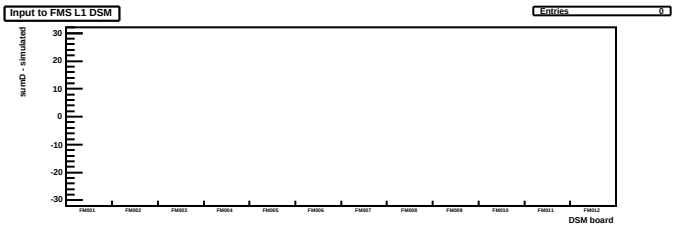

Input to FMS L0 DSM
Entries 6053616
HT ADC
QT board

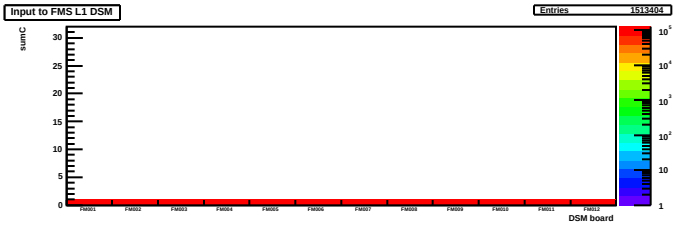

Input to FMS L0 DSM
Entries 1008936
HT ADC - simulated
QT board

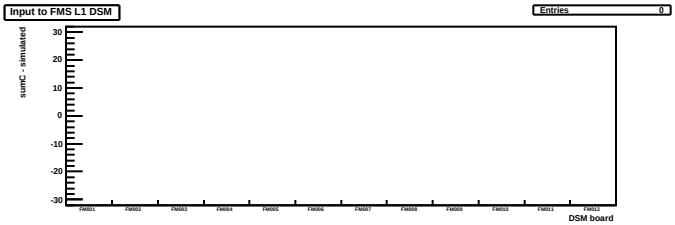

Input to FMS L0 DSM
Entries 6053616
HT ID
QT board

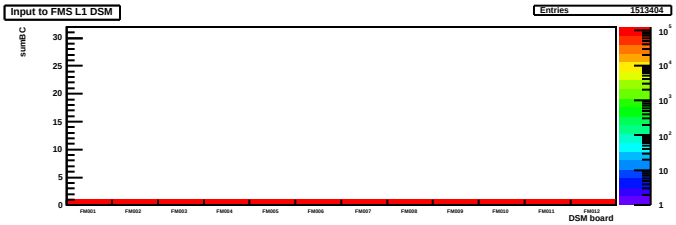

Input to FMS L0 DSM
Entries 1008936
HT ID - simulated
QT board

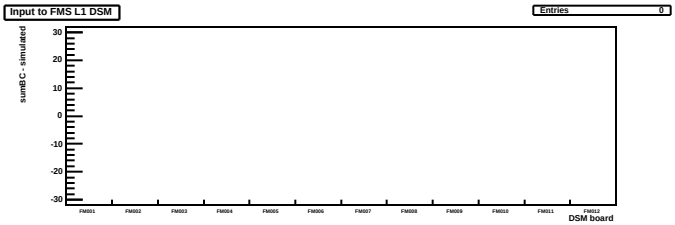

Input to FMS L1 DSM
Entries 1513404
sumD
DSM board

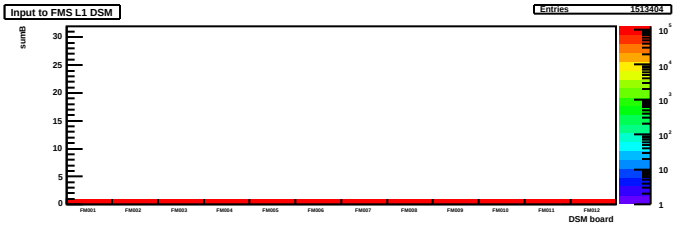

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

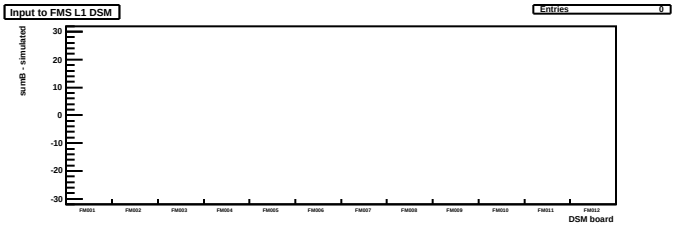

Input to FMS L1 DSM
Entries 1513404
sumC
DSM board

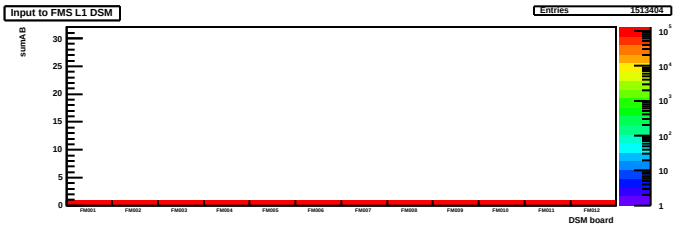

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

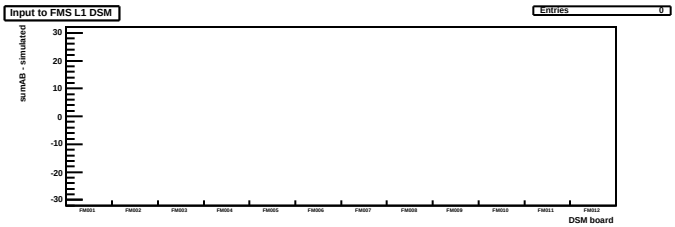

Input to FMS L1 DSM
Entries 1513404
sumBC
DSM board

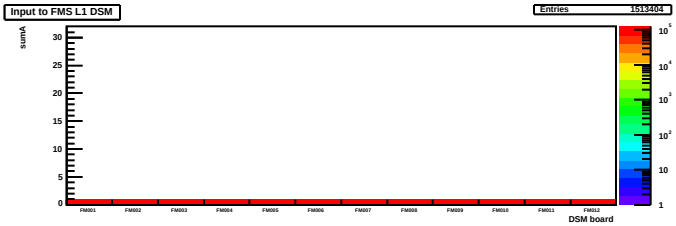

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

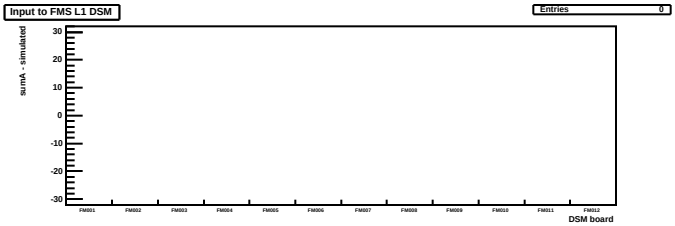

Input to FMS L1 DSM
Entries 1513404
sumB
DSM board

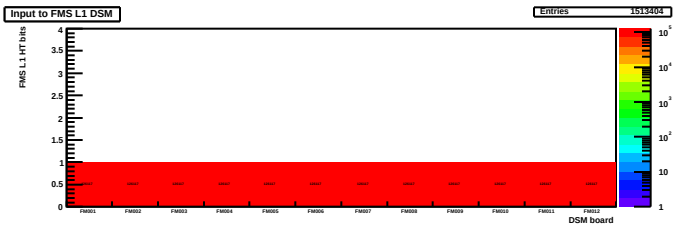

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

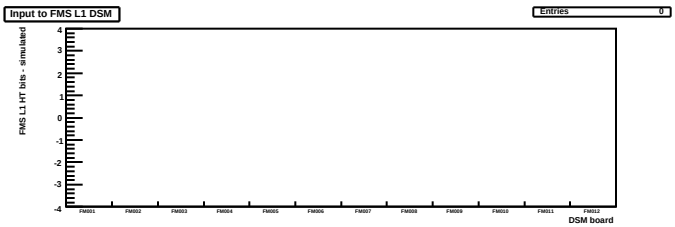

Input to FMS L1 DSM
Entries 1513404
sumAB
DSM board

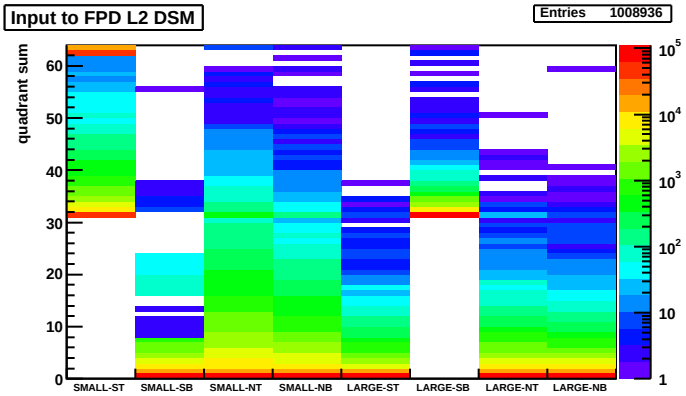

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

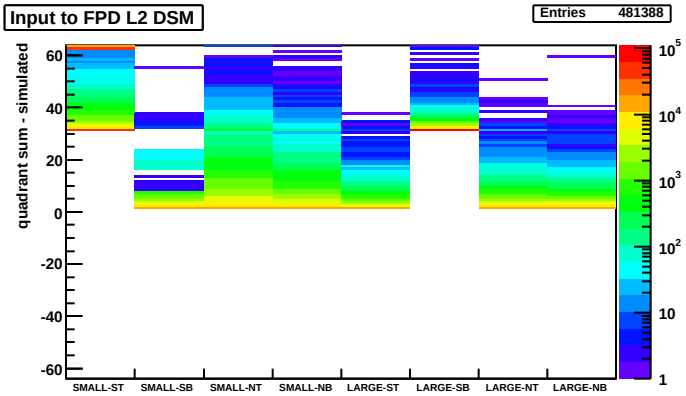

Input to FMS L1 DSM
Entries 1513404
sumA
DSM board

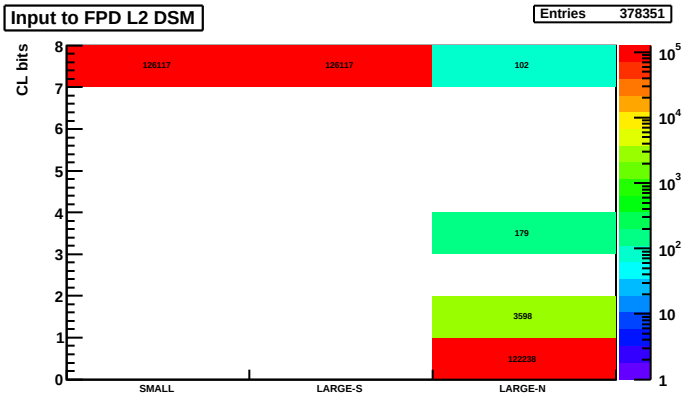

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

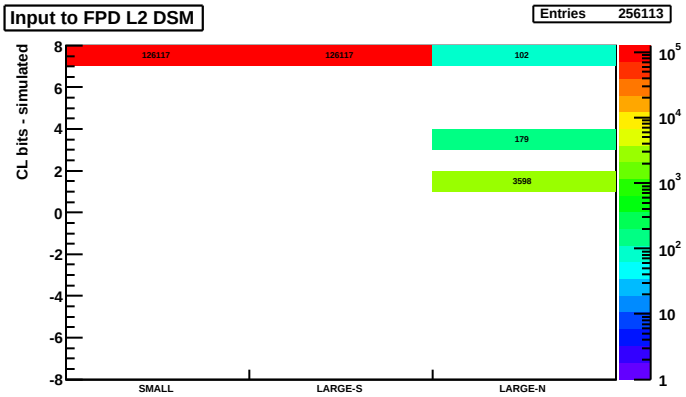

Input to FMS L1 DSM
Entries 1513404
FMS L1 HT bits
DSM board

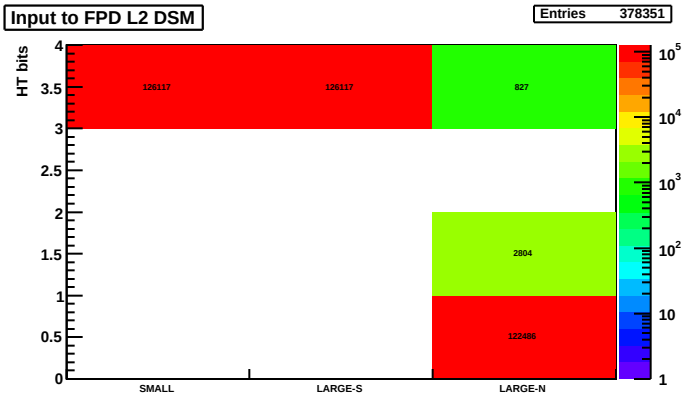

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

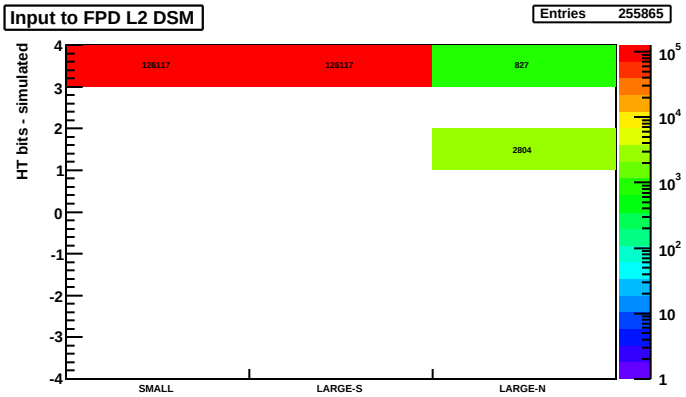

Input to FPD L2 DSM
Entries 1008936
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

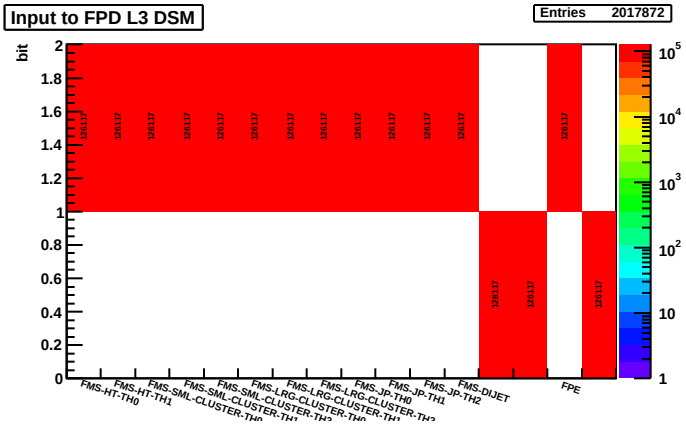

Input to FPD L2 DSM
Entries 481388
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

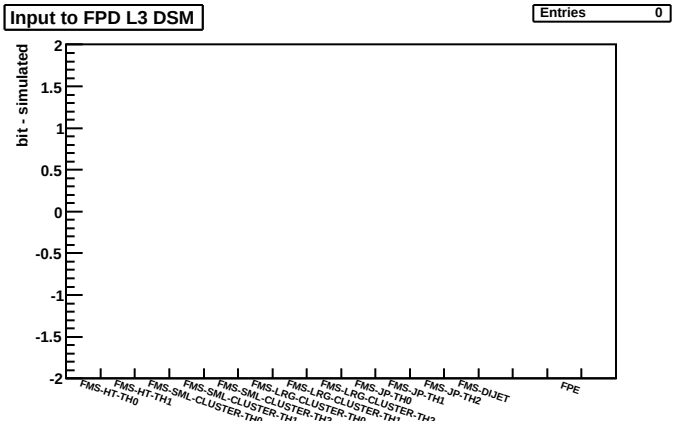

Input to FPD L2 DSM
Entries 378351
CL bits
126117
126117
102
179
3598
122238
SMALL
LARGE-S
LARGE-N

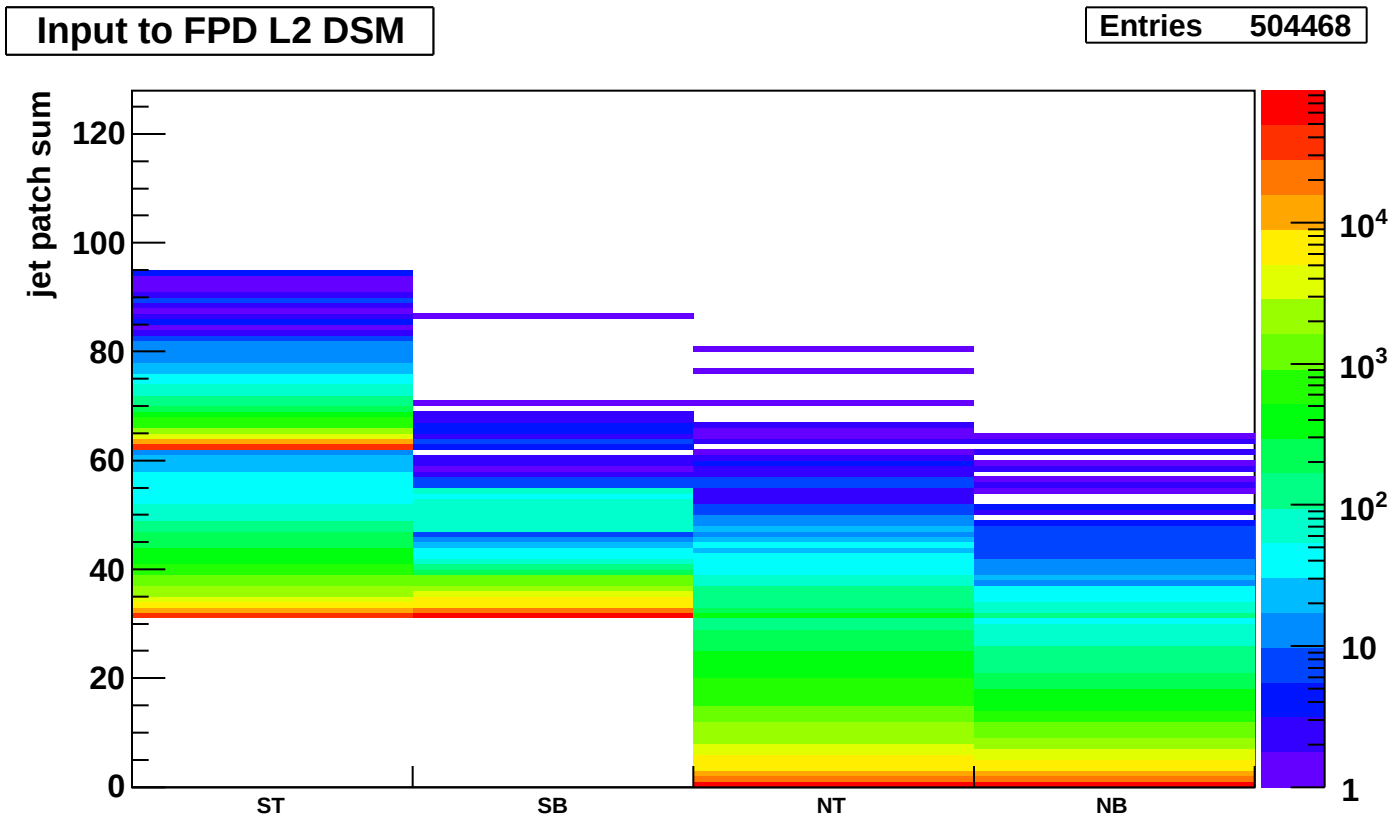

Input to FPD L2 DSM
Entries 256113
CL bits - simulated
126117
126117
102
179
3598
SMALL
LARGE-S
LARGE-N

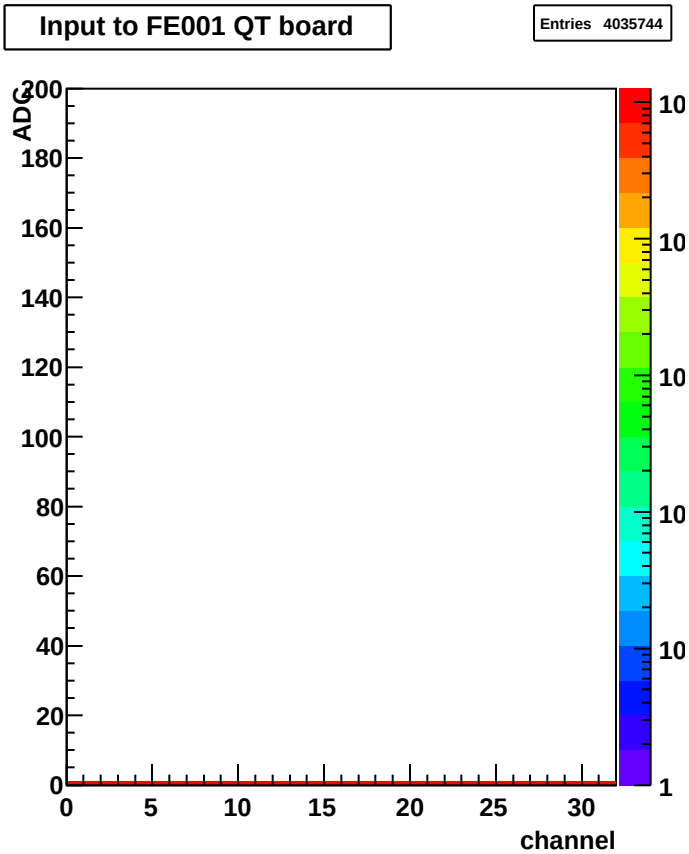

Input to FPD L2 DSM
Entries 378351
HT bits
126117
126117
827
2804
122486
SMALL
LARGE-S
LARGE-N

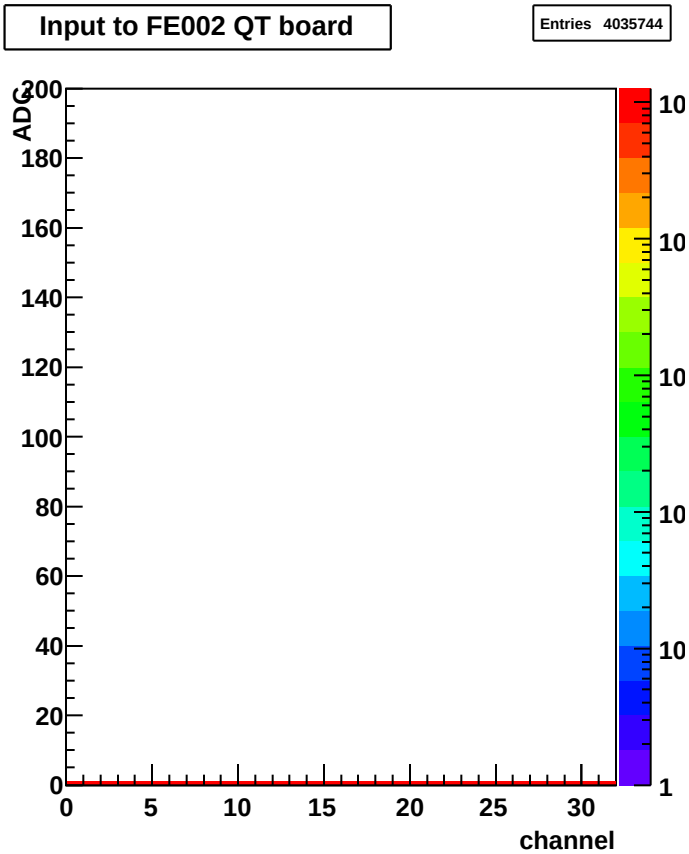

Input to FPD L2 DSM
Entries 255865
HT bits - simulated
126117
126117
827
2804
SMALL
LARGE-S
LARGE-N

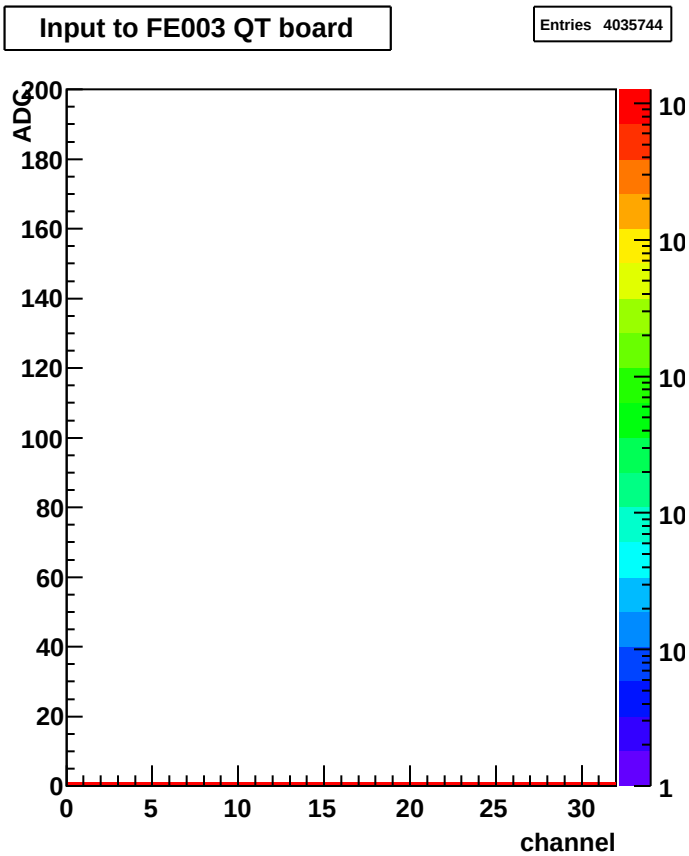

Input to FPD L3 DSM
Entries 2017872
bit
126117
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

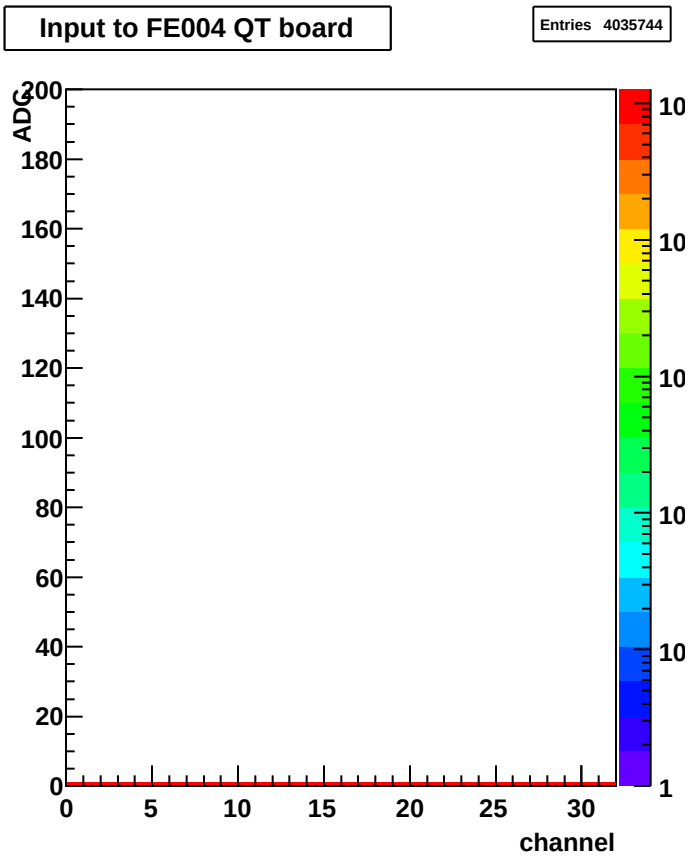

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

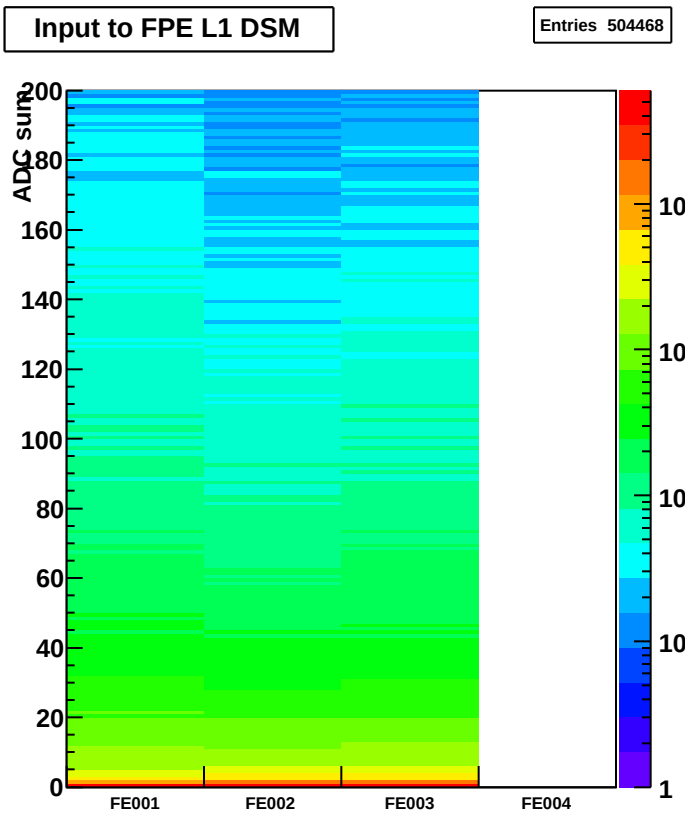

Input to FPD L2 DSM
Entries 504468
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10^4
10^3
10^2
10
1

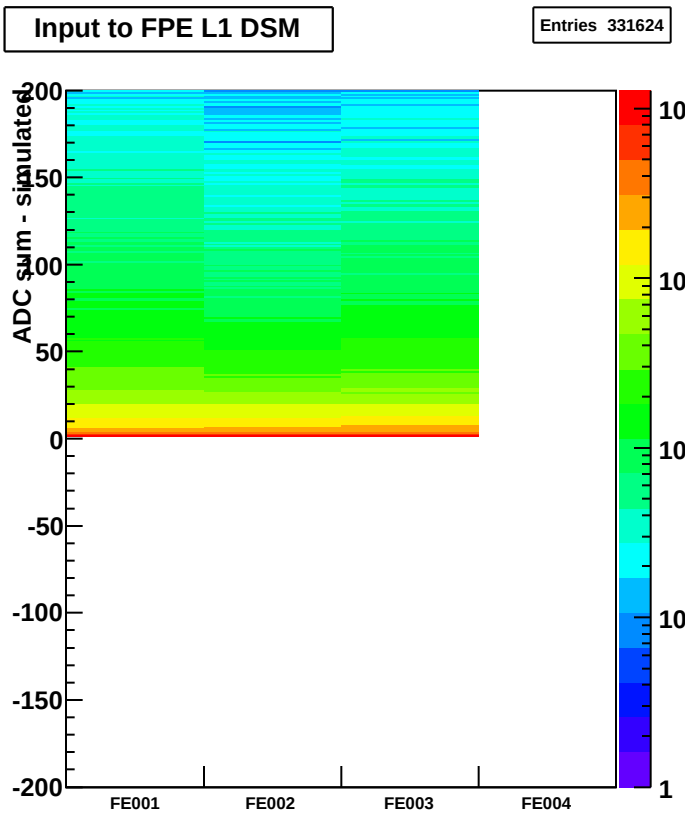

Input to FE001 QT board
Entries 4035744
ADC
channel

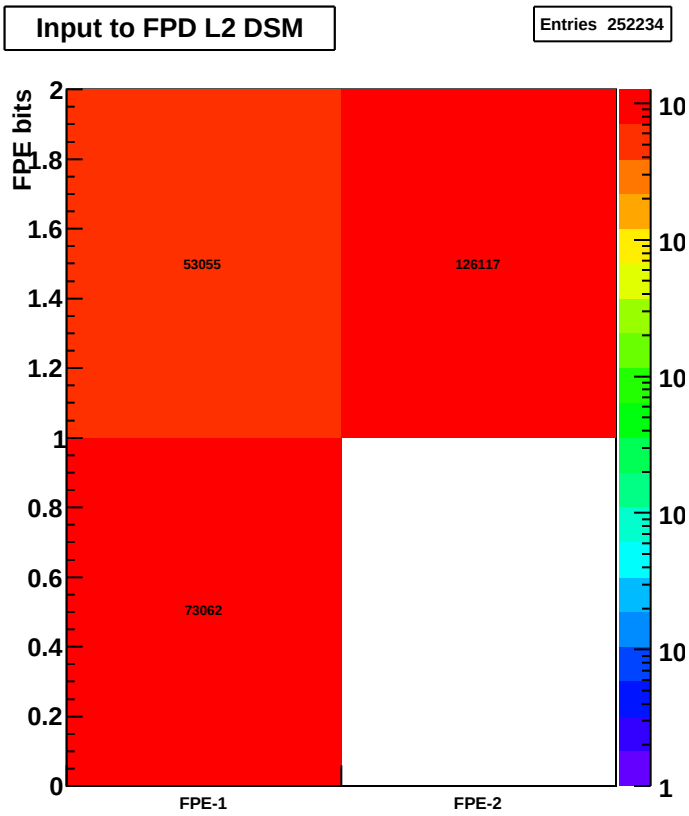

Input to FE002 QT board
Entries 4035744
ADC
channel

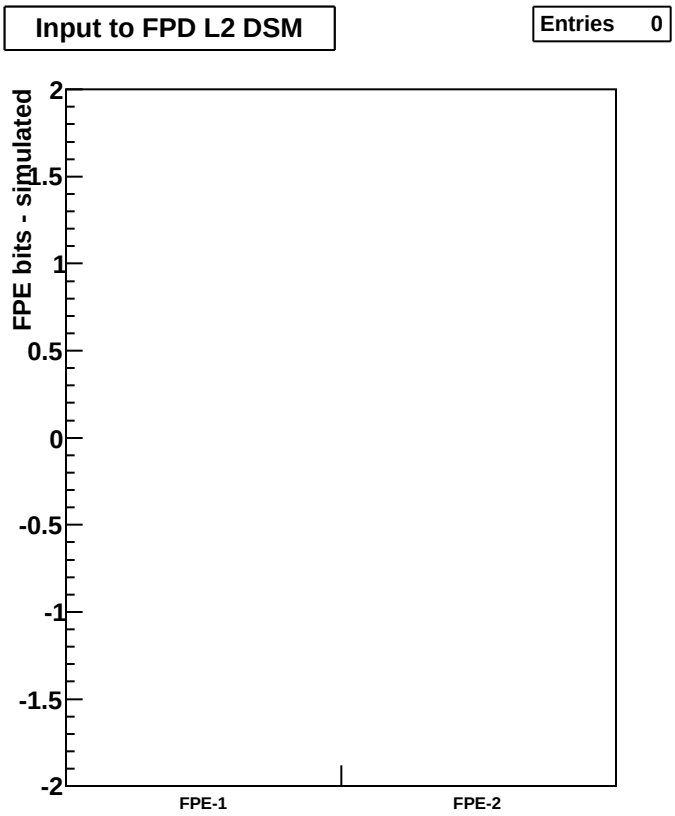

Input to FE003 QT board
Entries 4035744
ADC
channel


Input to FE004 QT board
Entries 4035744
ADC
channel


Input to FPE L1 DSM
Entries 504468
ADC sum
FE001
FE002
FE003
FE004


Input to FPE L1 DSM
Entries 331624
ADC sum - simulated
FE001
FE002
FE003
FE004


Input to FPD L2 DSM
Entries 252234
FPE bits
53055
126117
73062
FPE-1
FPE-2


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