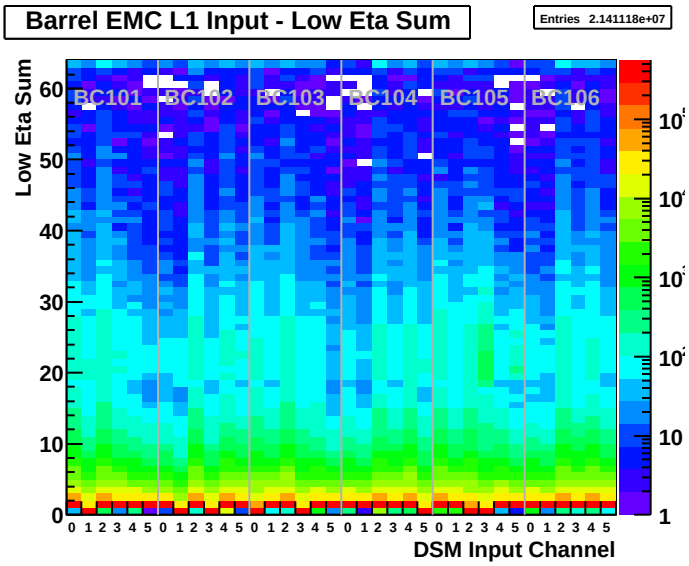
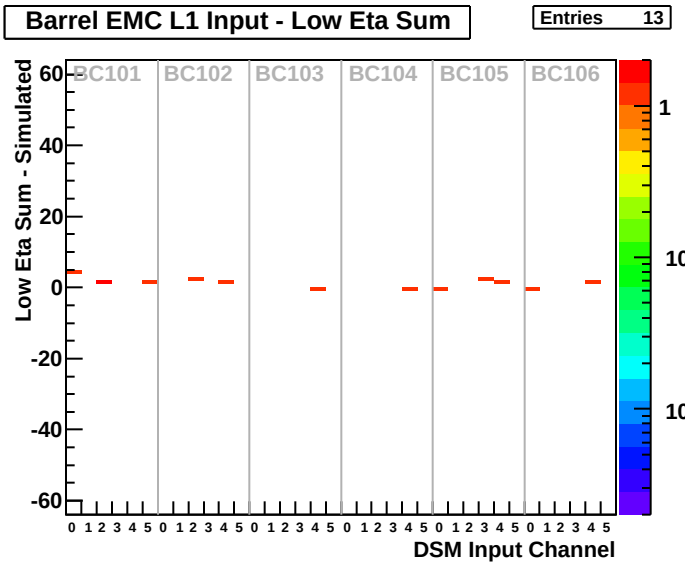
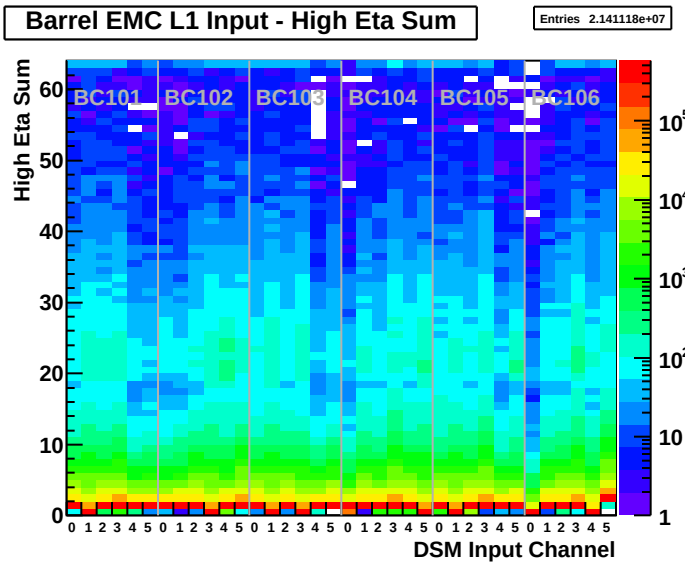
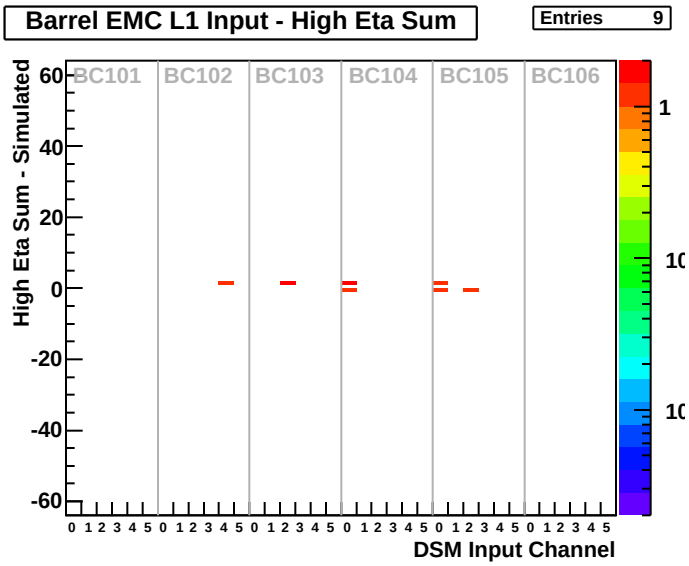
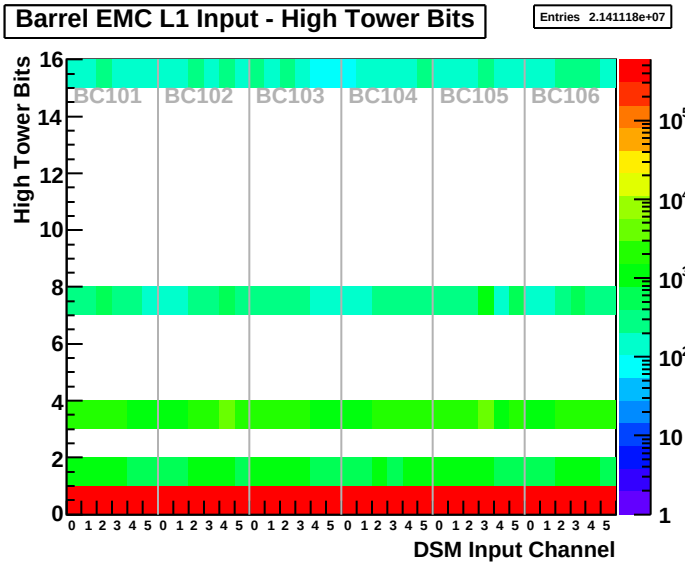
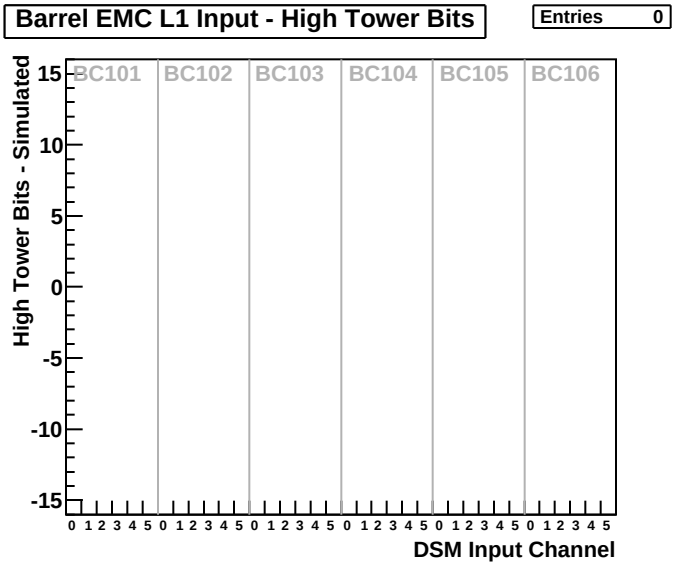

Barrel EMC L1 Input - Low Eta Sum
Entries 2.141118e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

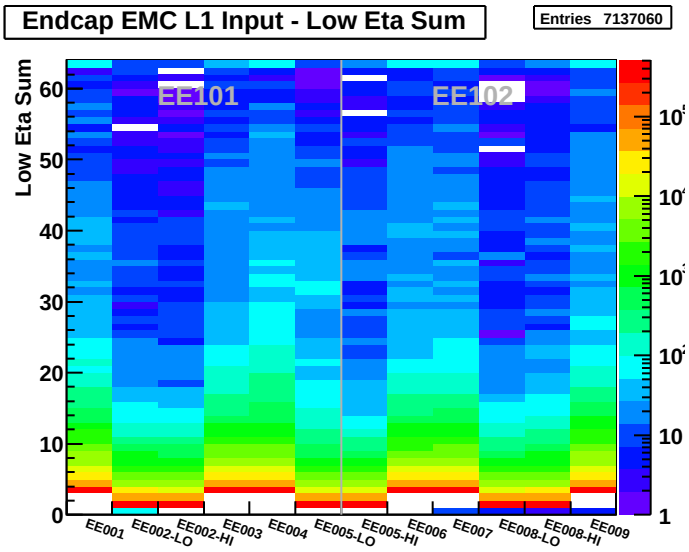

Barrel EMC L1 Input - Low Eta Sum
Entries 13
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

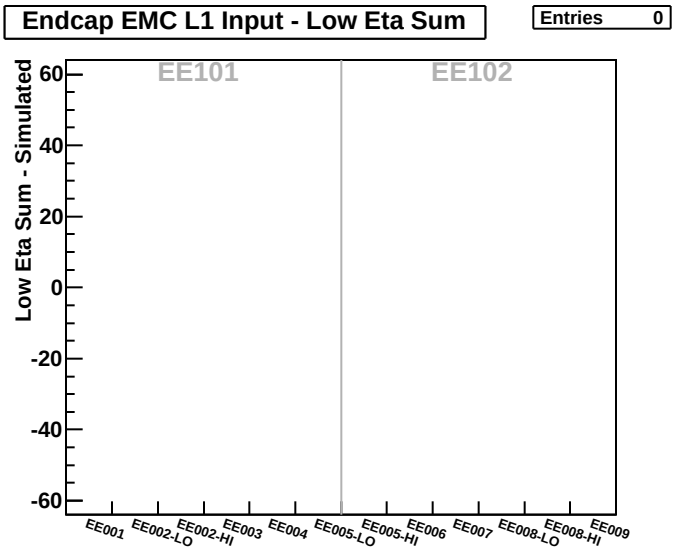

Barrel EMC L1 Input - High Eta Sum
Entries 2.141118e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

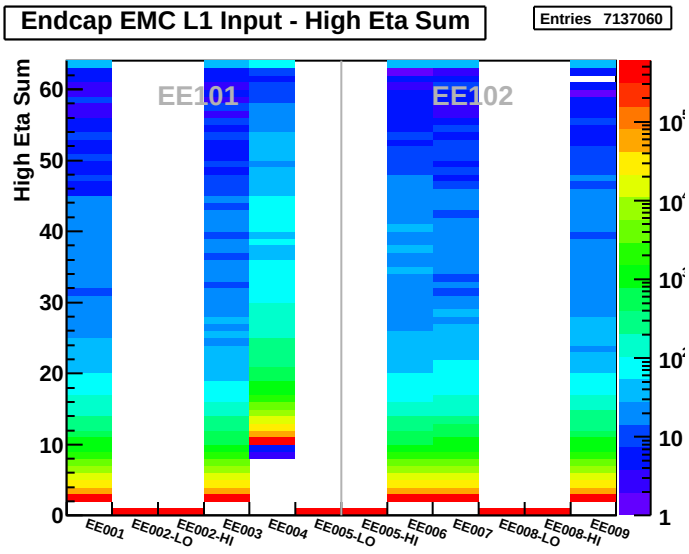

Barrel EMC L1 Input - High Eta Sum
Entries 9
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

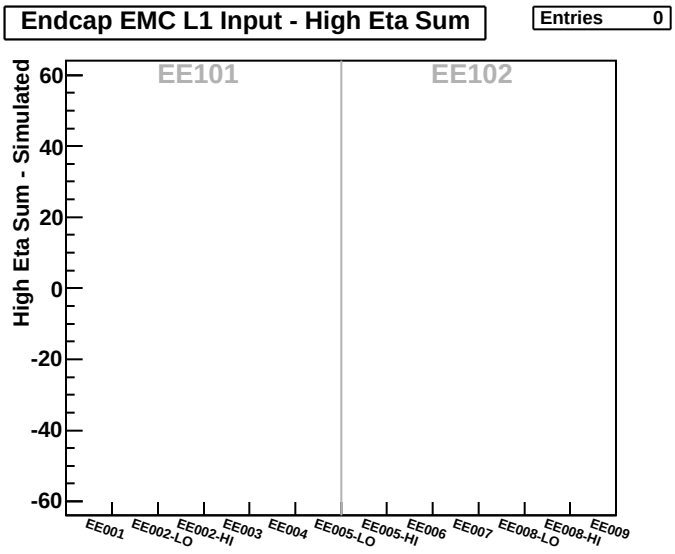

Barrel EMC L1 Input - High Tower Bits
Entries 2.141118e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

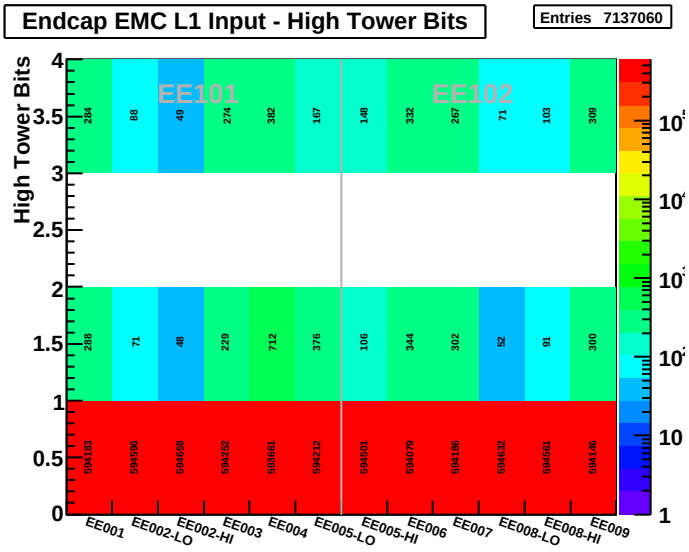

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

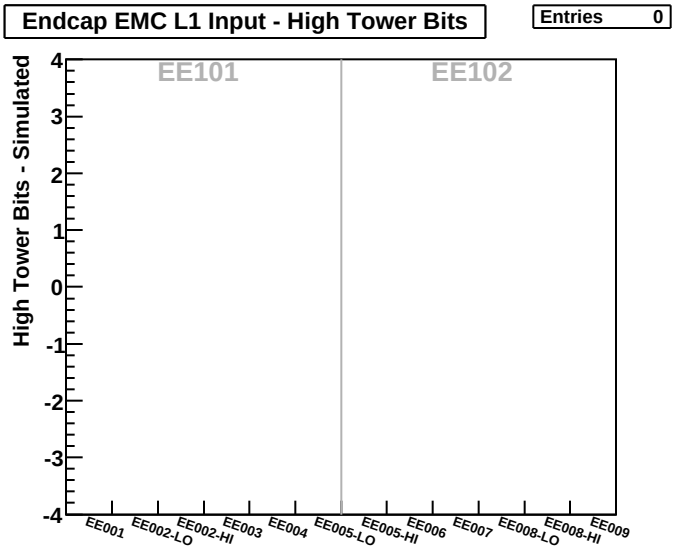

Endcap EMC L1 Input - Low Eta Sum
Entries 7137060
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

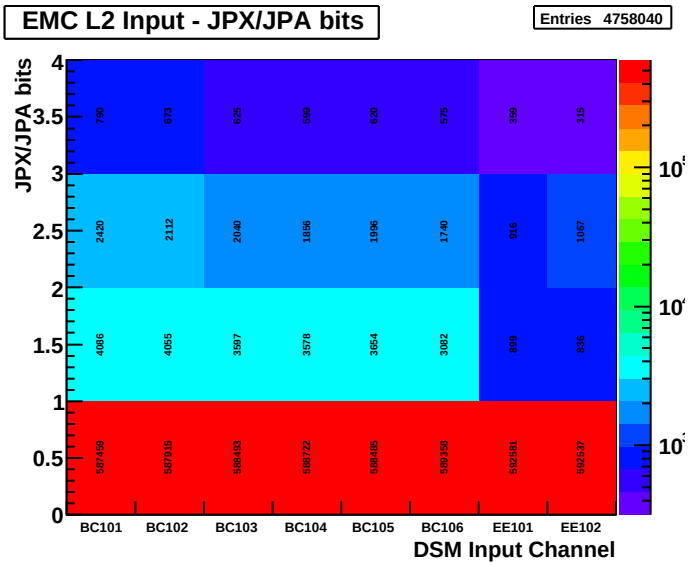

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

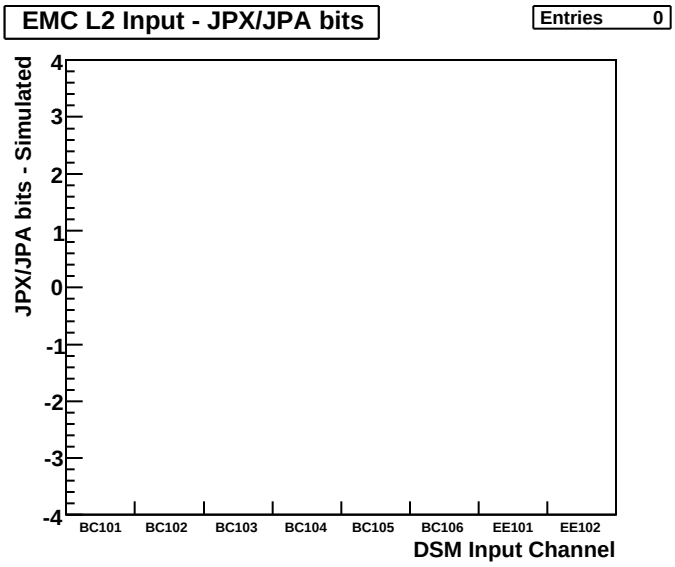

Endcap EMC L1 Input - High Eta Sum
Entries 7137060
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

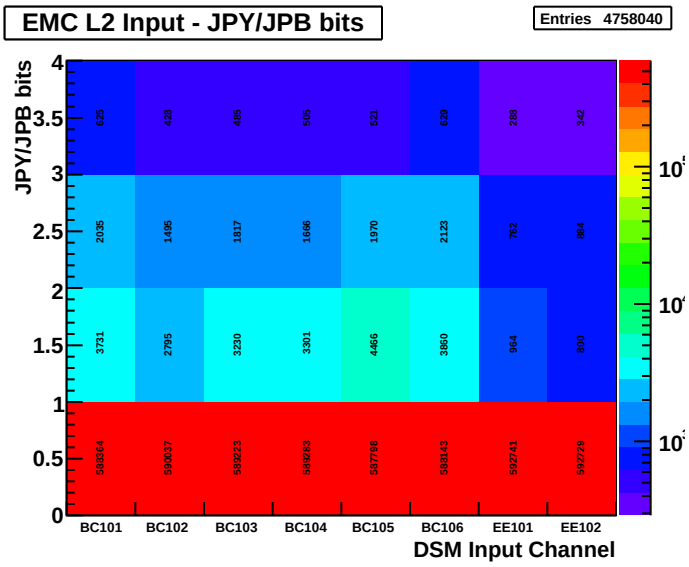

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

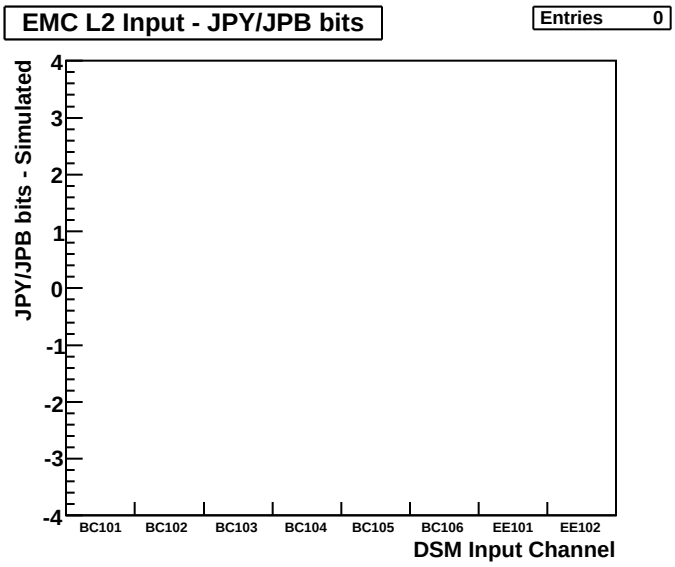

Endcap EMC L1 Input - High Tower Bits
Entries 7137060
High Tower Bits
EE101
EE102
284 88 49 274 382 167 148 332 267 71 103 309
288 71 48 229 712 376 106 344 302 52 91 300
594183 594596 594658 594252 593661 594212 594501 594079 594186 594632 594561 594146
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

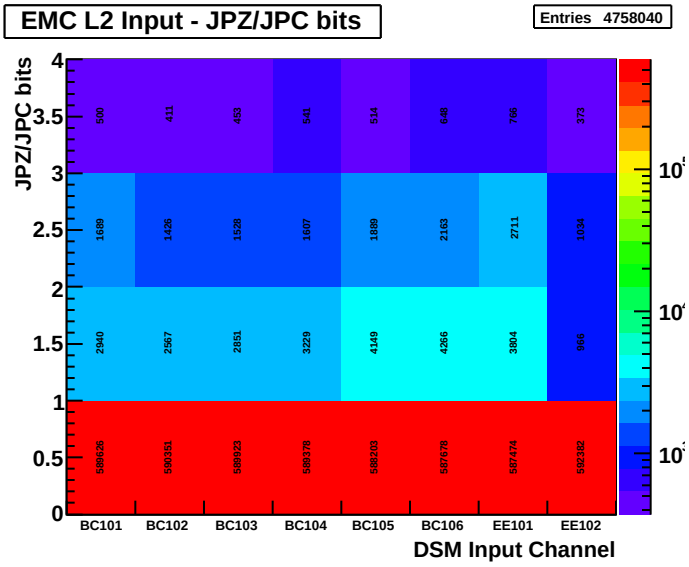

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

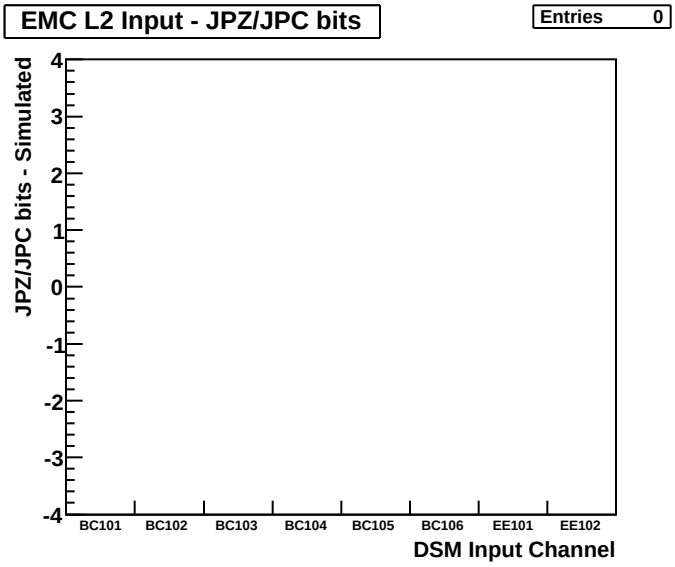

EMC L2 Input - JPX/JPA bits
Entries 4758040
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
790 673 625 599 620 575 359 315
2420 2112 2040 1856 1996 1740 916 1067
4086 4055 3997 3578 3654 3082 899 836
587459 587915 588493 588722 588495 589358 592581 592537

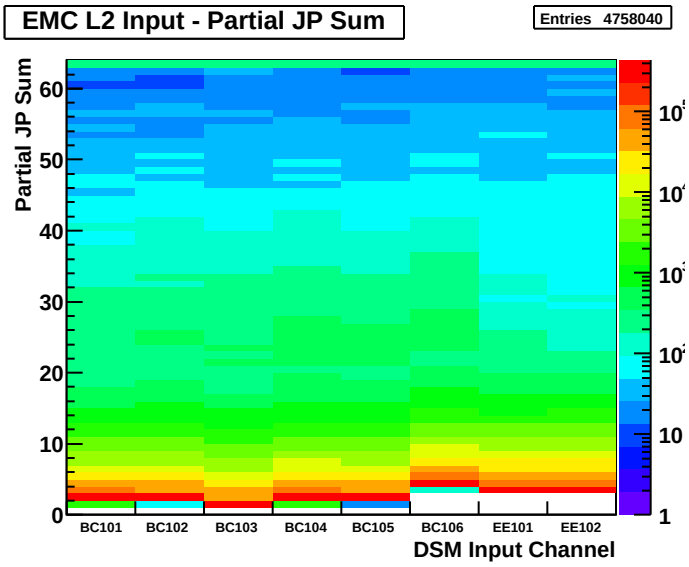

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

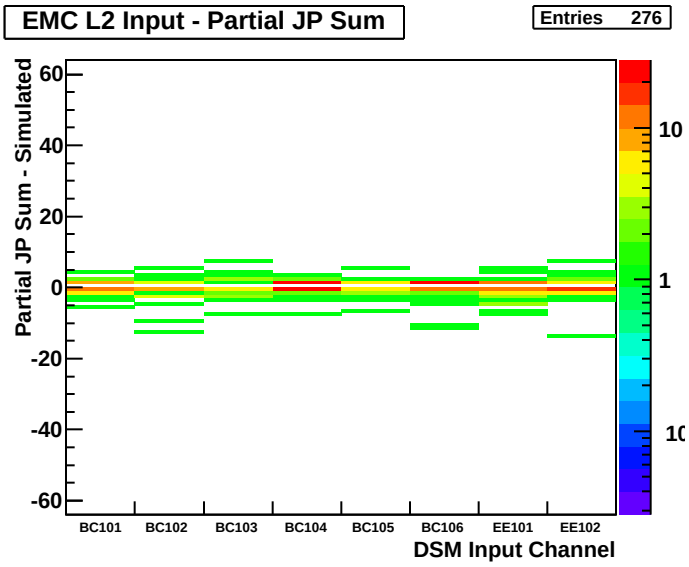

EMC L2 Input - JPY/JPB bits
Entries 4758040
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
625 428 485 506 521 629 288 342
2035 1495 1817 1666 1970 2123 762 884
3731 2795 3230 3301 4466 3860 964 800
588364 590037 589223 589283 587798 589143 592741 592729

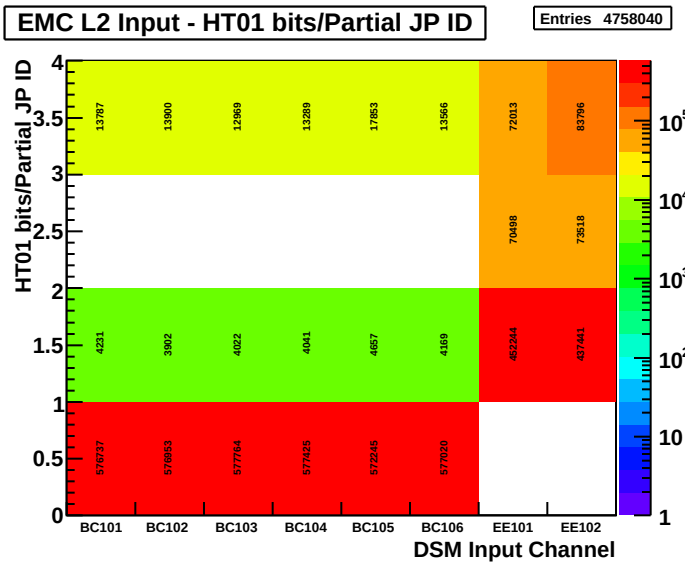

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

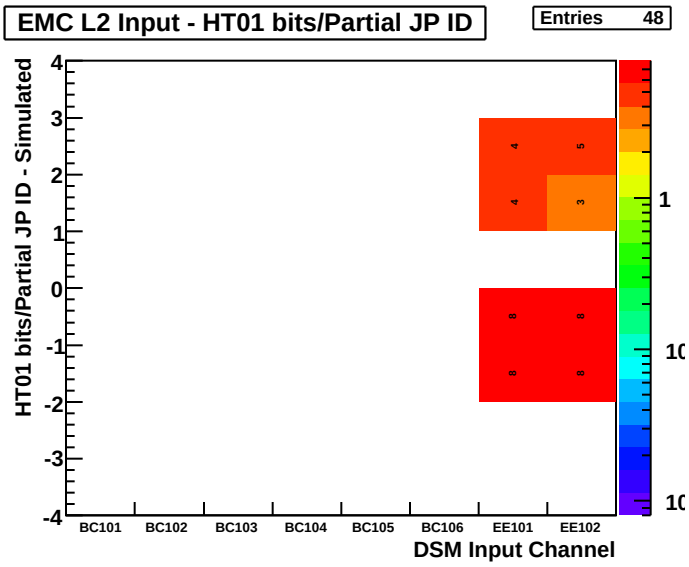

EMC L2 Input - JPZ/JPC bits
Entries 4758040
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
500 411 453 541 514 648 766 373
1689 1426 1528 1607 1889 2163 2711 1034
2940 2567 2851 3229 4149 4266 3804 956
589526 590351 589923 589378 588203 587678 587474 592382

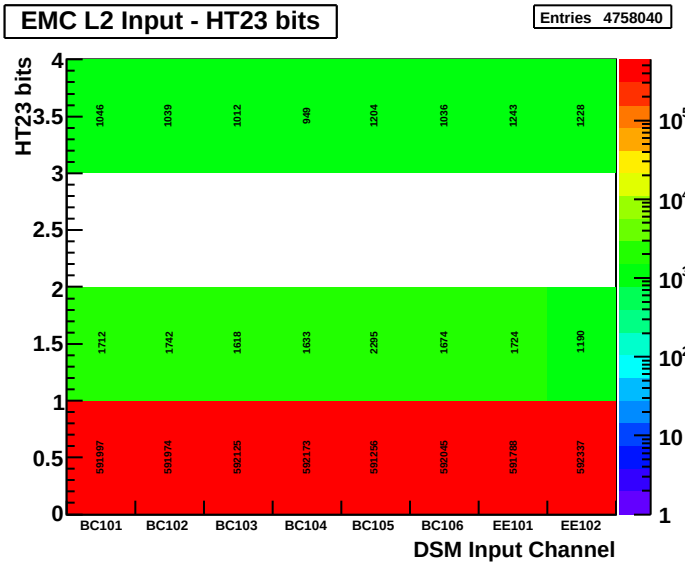

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

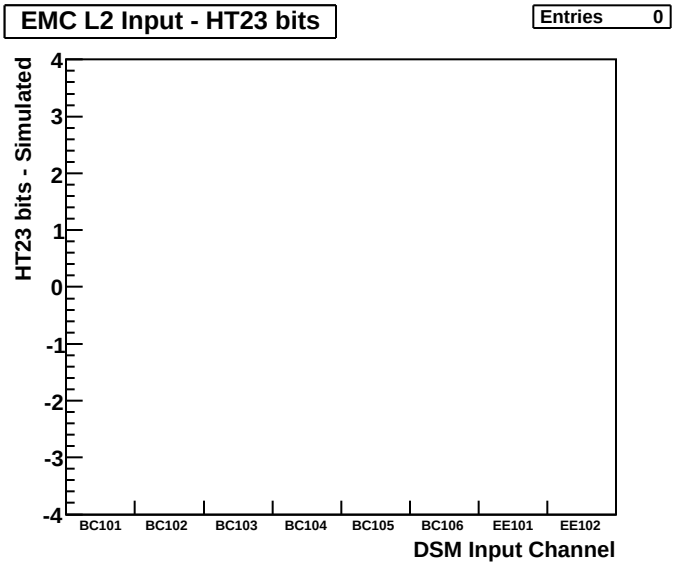

EMC L2 Input - Partial JP Sum
Entries 4758040
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

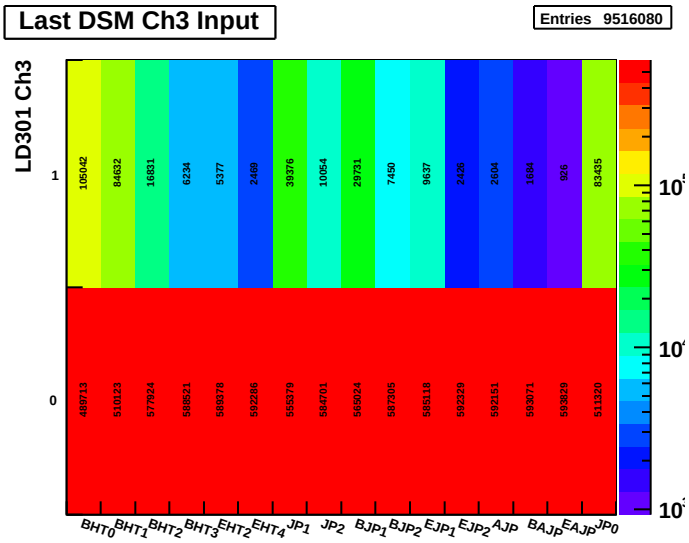

EMC L2 Input - Partial JP Sum
Entries 276
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

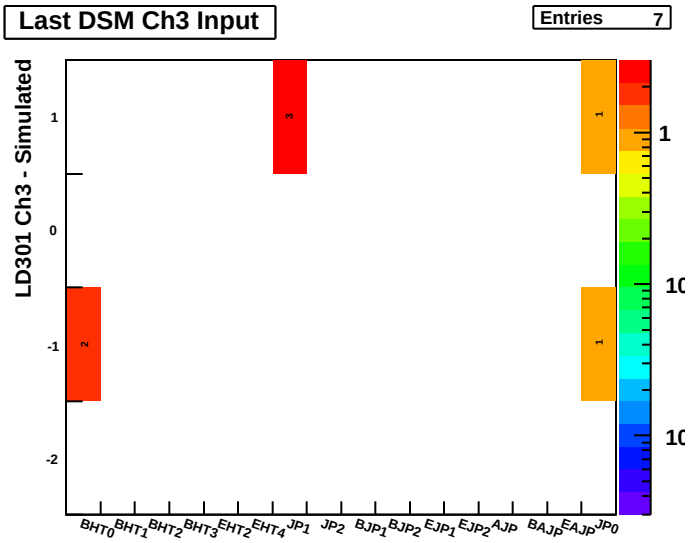

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4758040
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

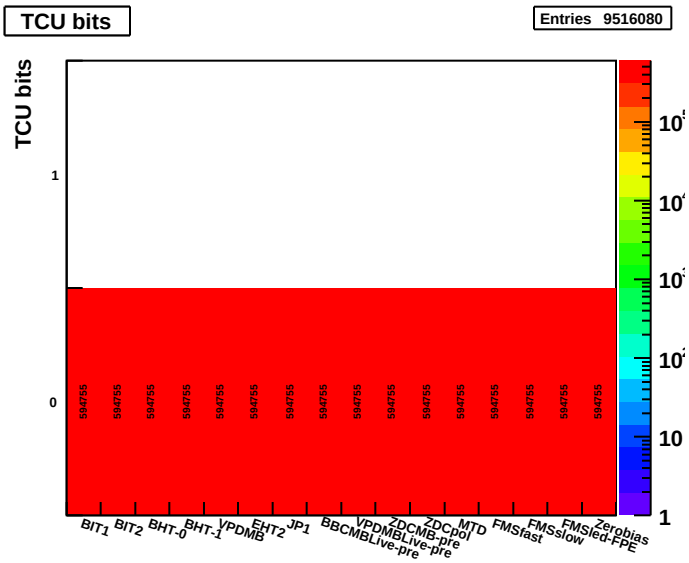

EMC L2 Input - HT01 bits/Partial JP ID
Entries 48
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

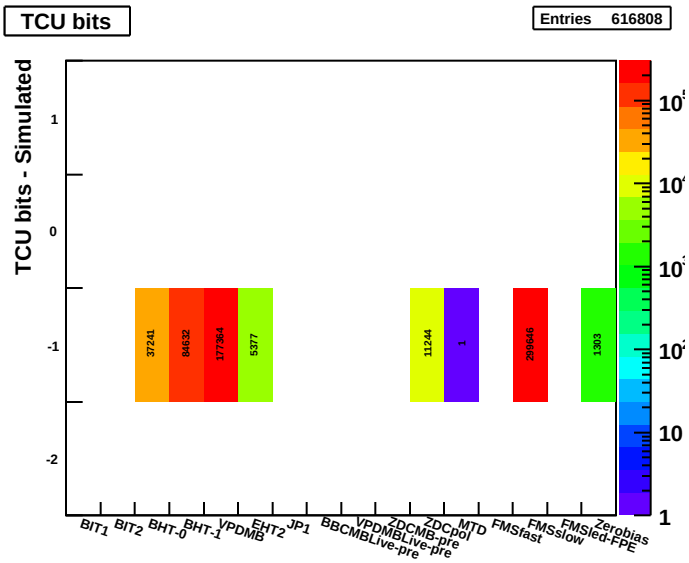

EMC L2 Input - HT23 bits
Entries 4758040
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

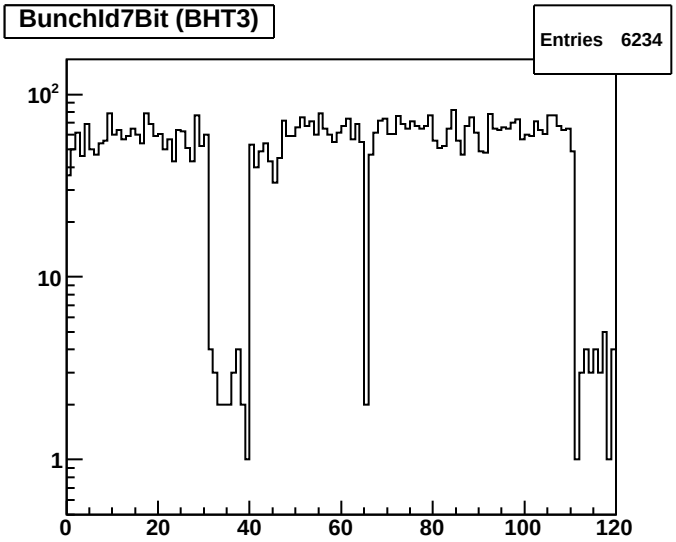

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

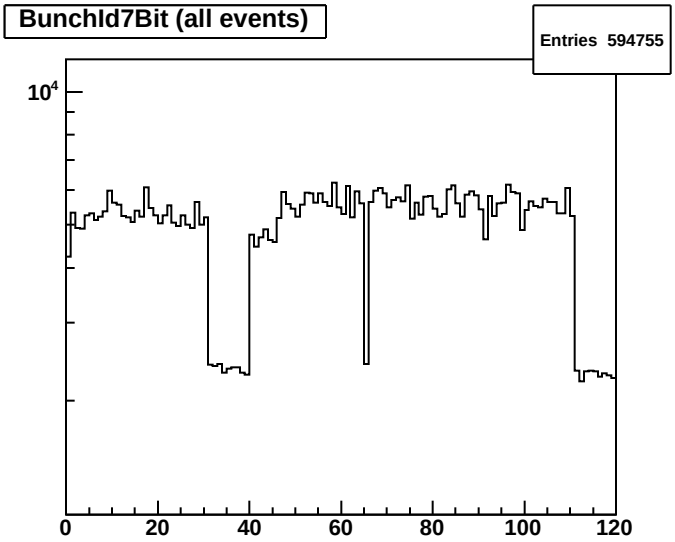

Last DSM Ch3 Input
Entries 9516080
LD301 Ch3
105042 84632 16831 6234 5377 2469 39376 10054 29731 7450 9637 2426 2604 1684 926 83435
489713 510123 577924 588521 589378 592266 555379 584701 565024 587305 585118 592329 592151 593071 593829 511320
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

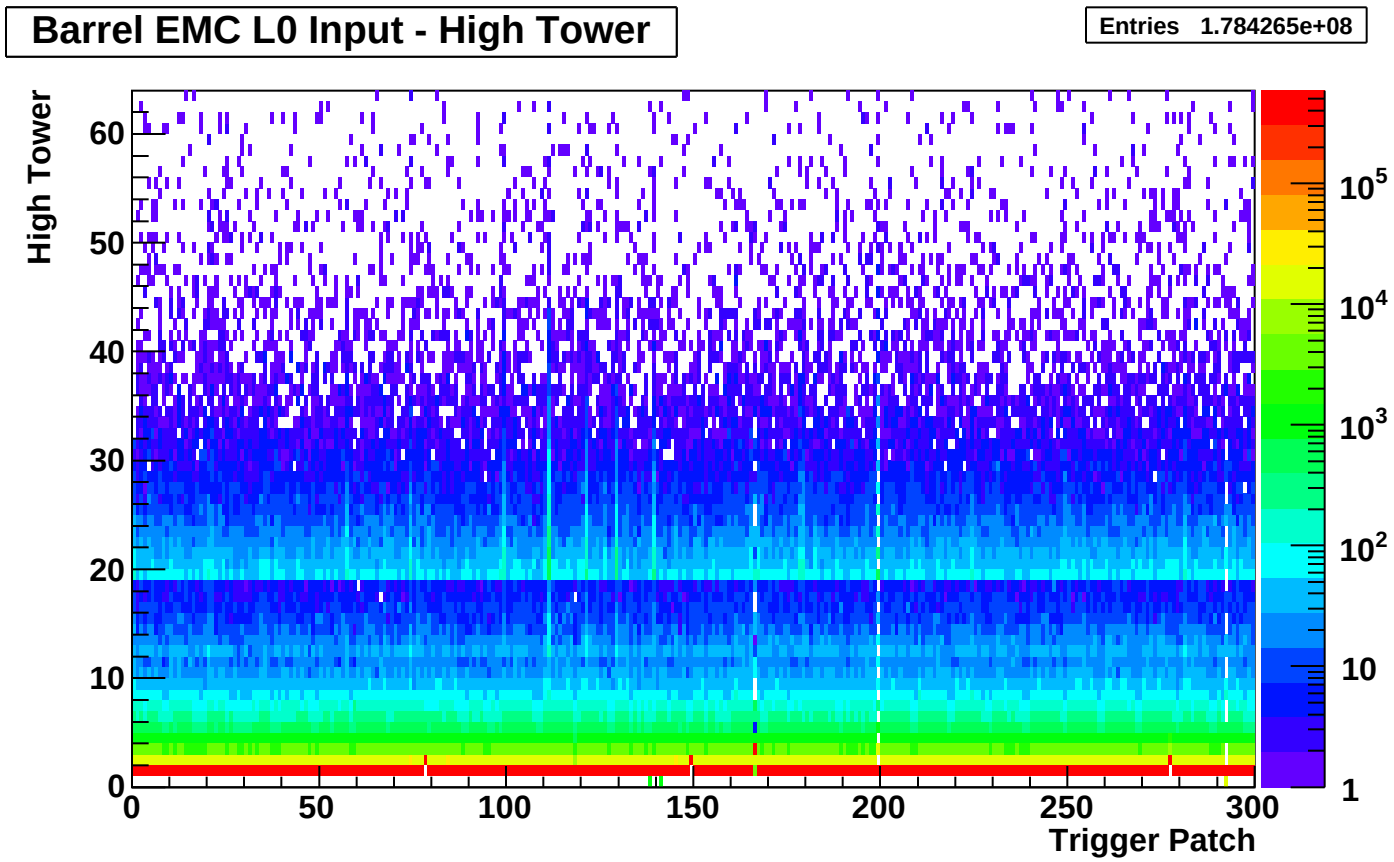

Last DSM Ch3 Input
Entries 7
LD301 Ch3 - Simulated
3
1
2
1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

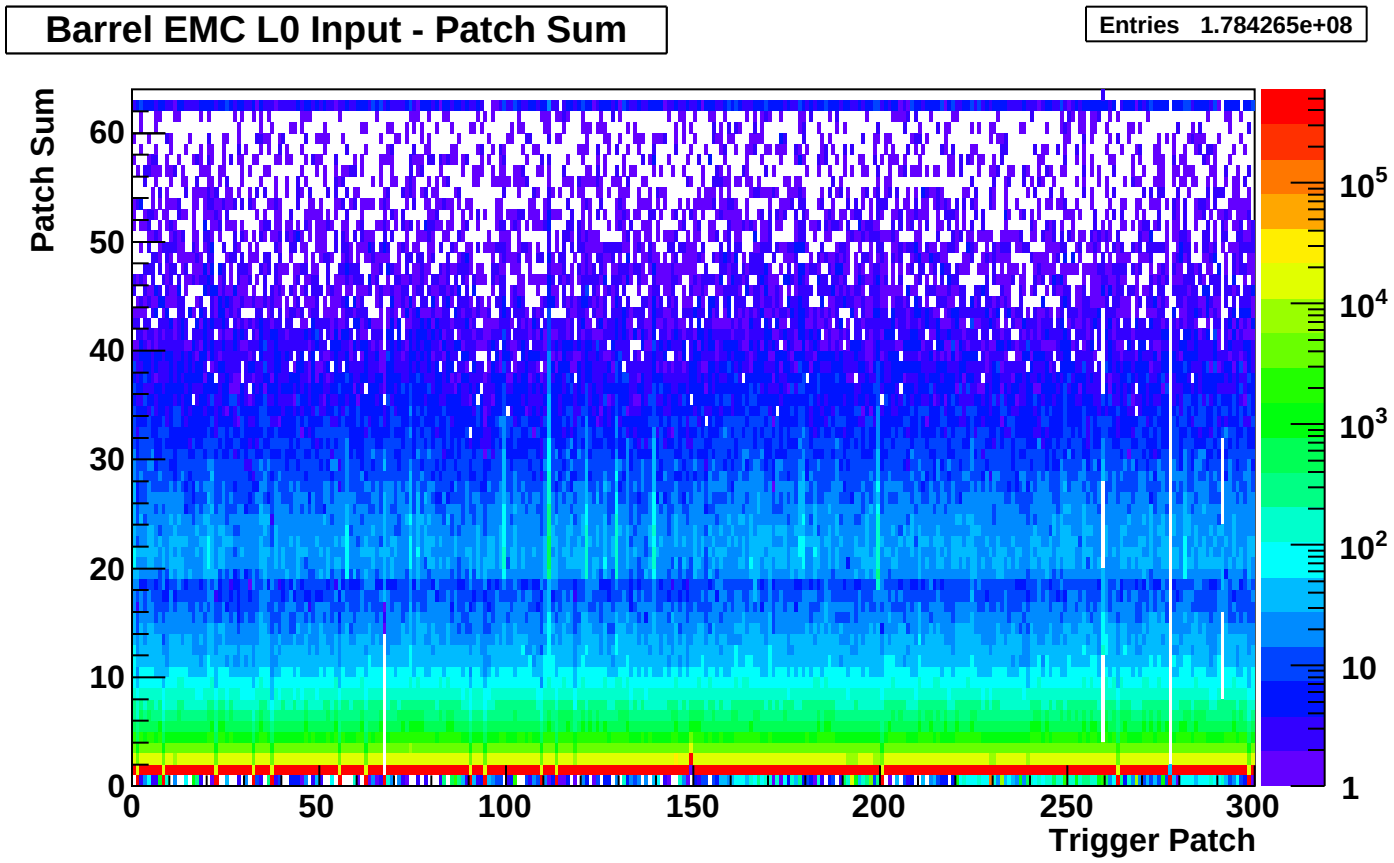

TCU bits
Entries 9516080
TCU bits
594755 594755 594755 594755 594755 594755 594755 594755 594755 594755 594755 594755 594755 594755 594755 594755
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

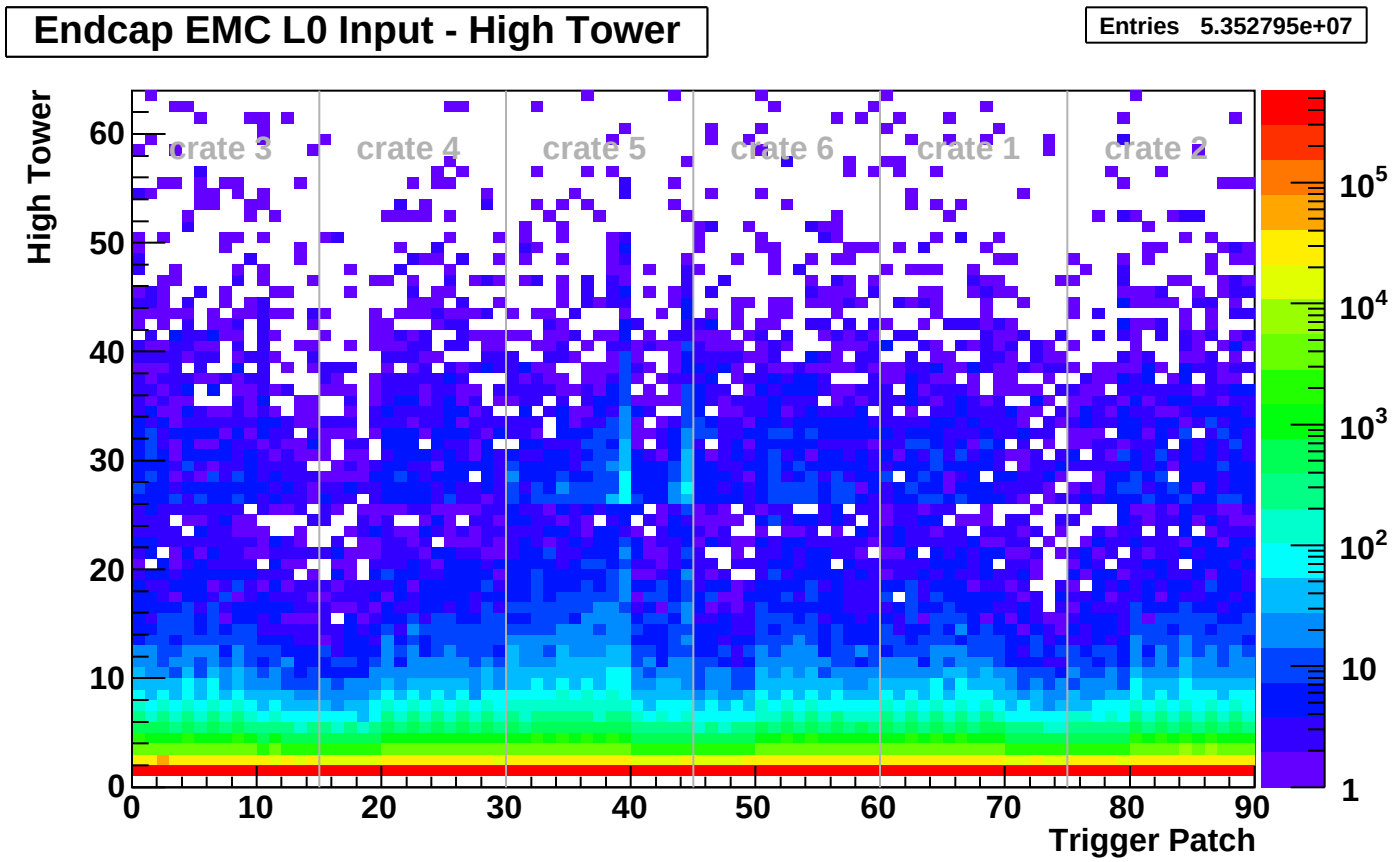

TCU bits
Entries 616808
TCU bits - Simulated
37241 84632 177364 5377 11244 1 293646 1303
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

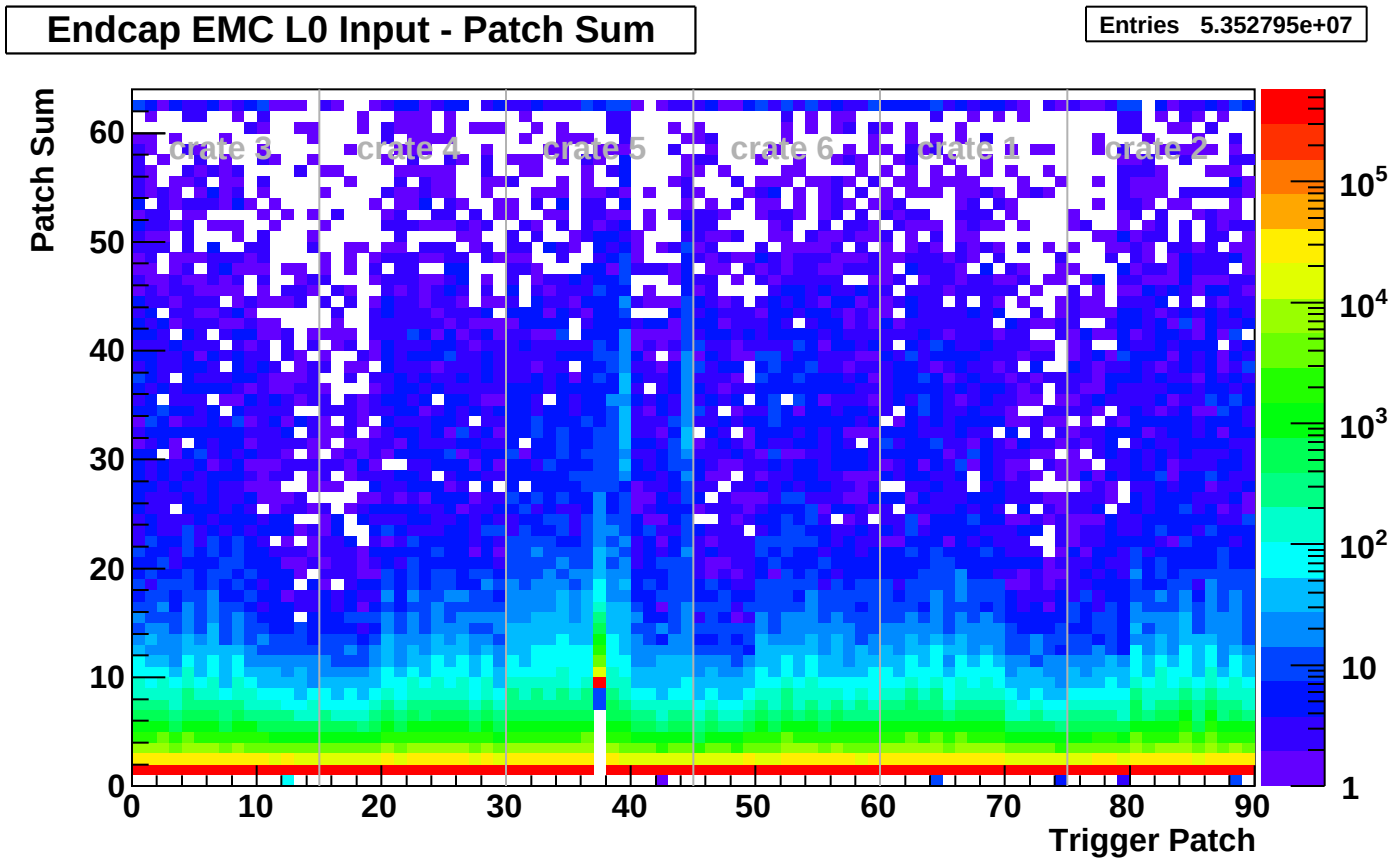

BunchId7Bit (BHT3)
Entries 6234

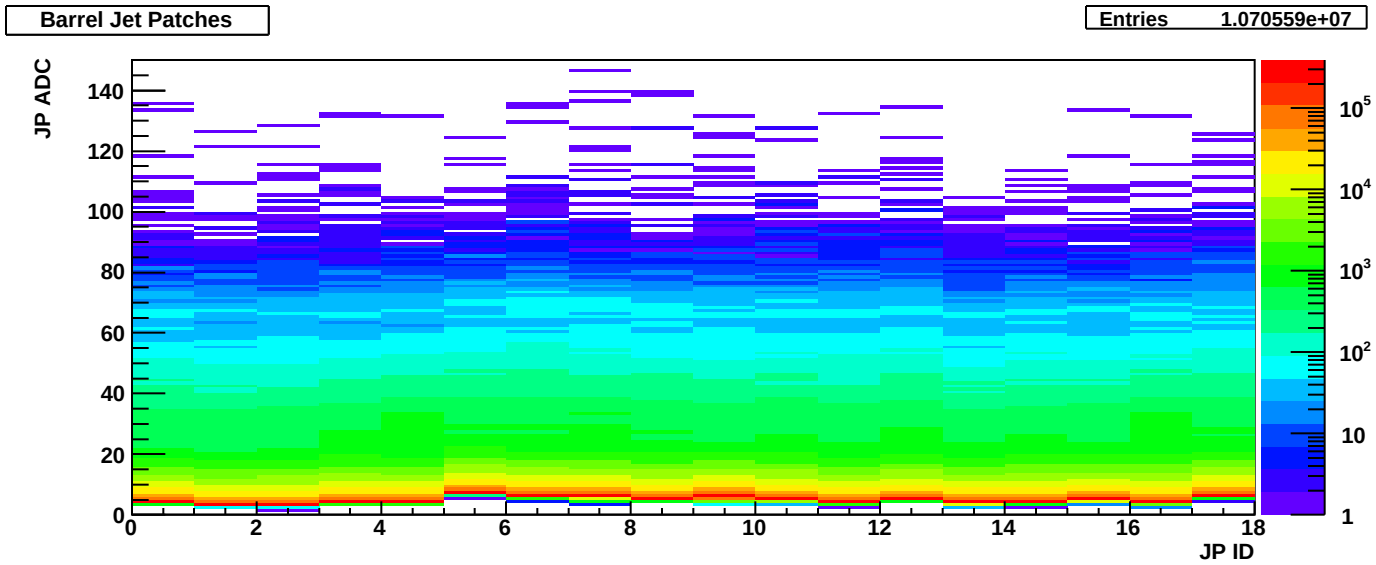

BunchId7Bit (all events)
Entries 594755

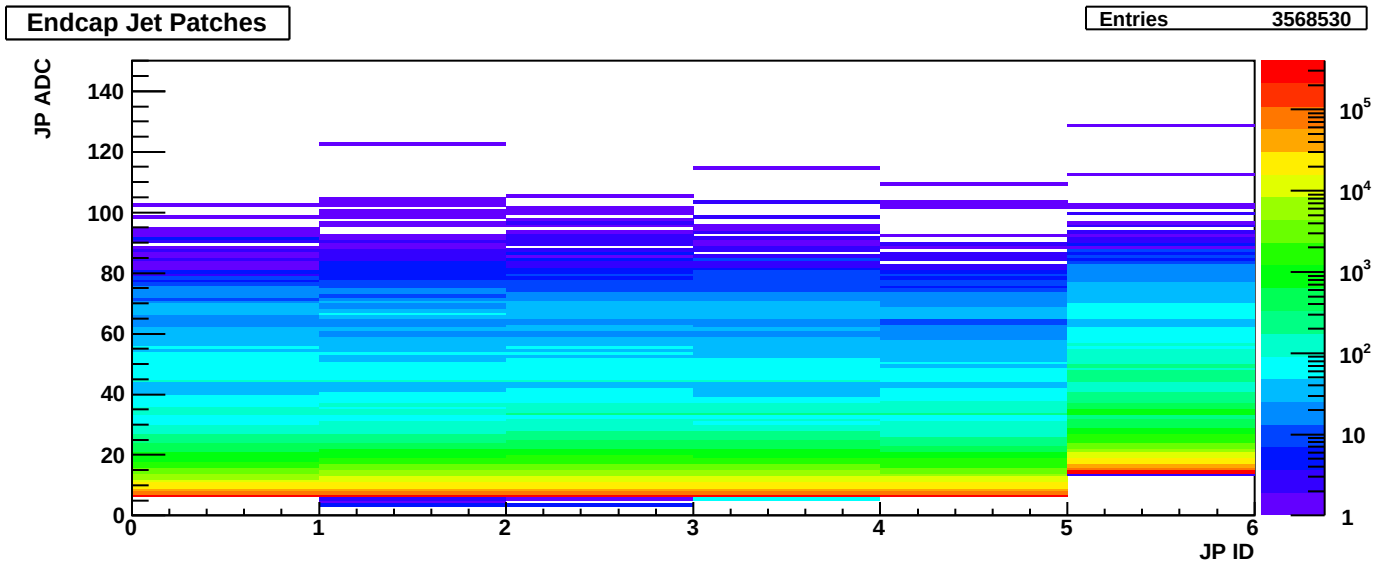

Barrel EMC L0 Input - High Tower
Entries 1.784265e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

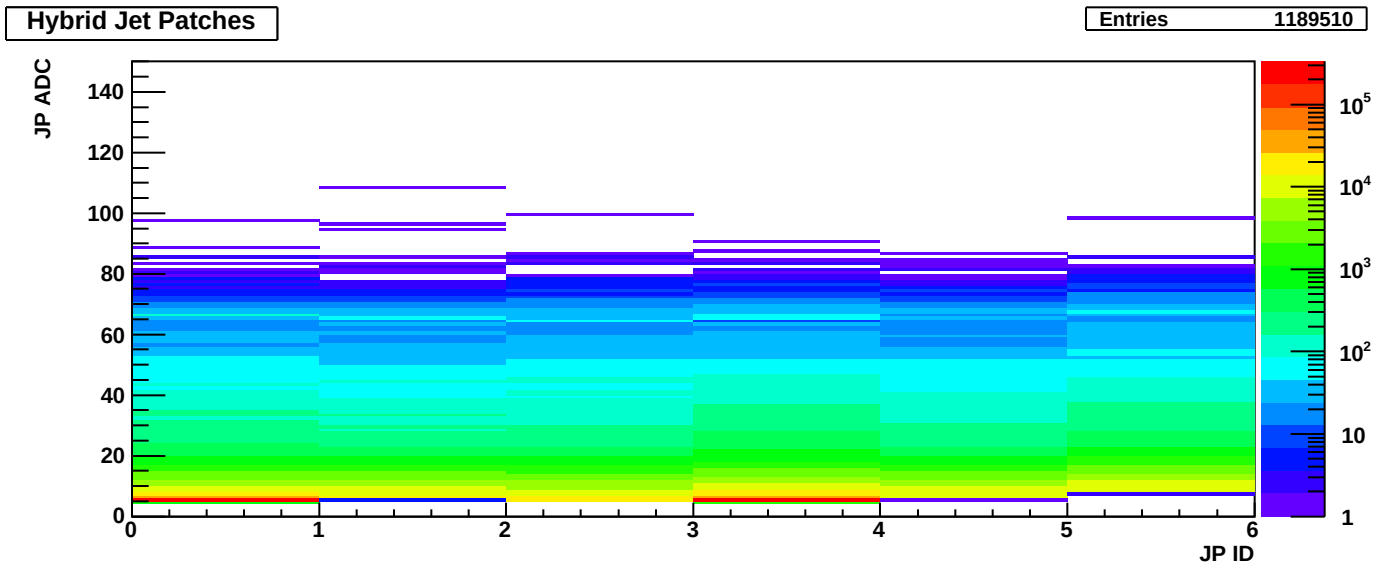

Barrel EMC L0 Input - Patch Sum
Entries 1.784265e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

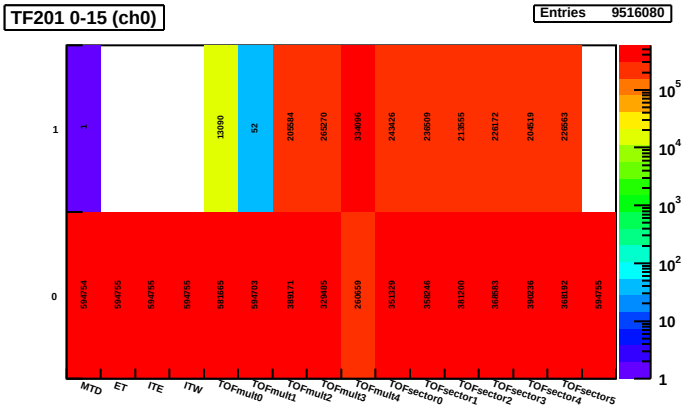

Endcap EMC L0 Input - High Tower
Entries 5.352795e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

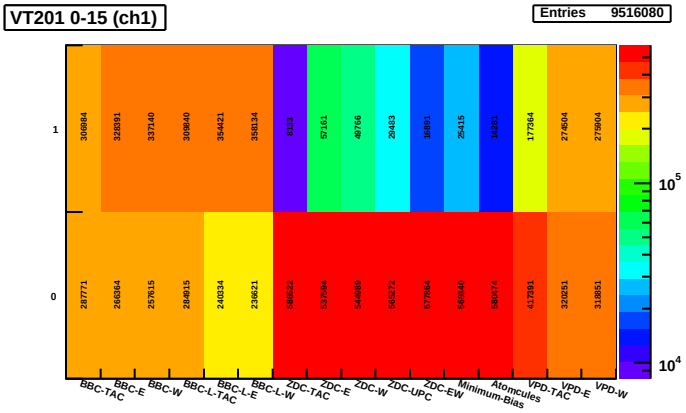

Endcap EMC L0 Input - Patch Sum
Entries 5.352795e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

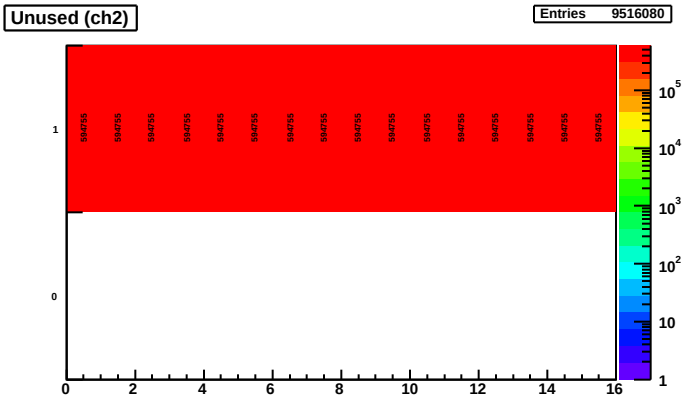

Barrel Jet Patches
Entries 1.070559e+07
JP ADC
JP ID

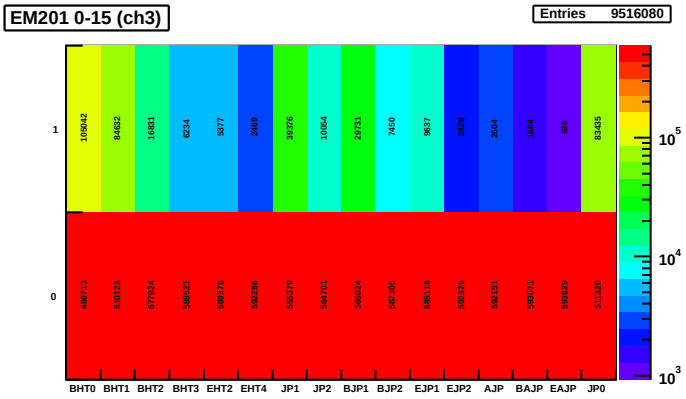

Endcap Jet Patches
Entries 3568530
JP ADC
JP ID

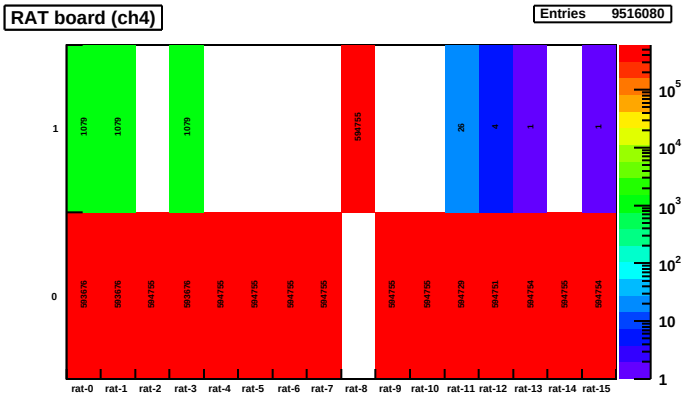

Hybrid Jet Patches
Entries 1189510
JP ADC
JP ID

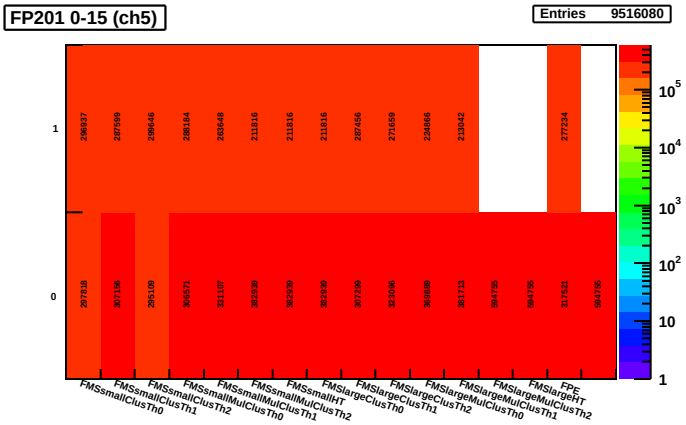

TF201 0-15 (ch0)
Entries 9516080
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

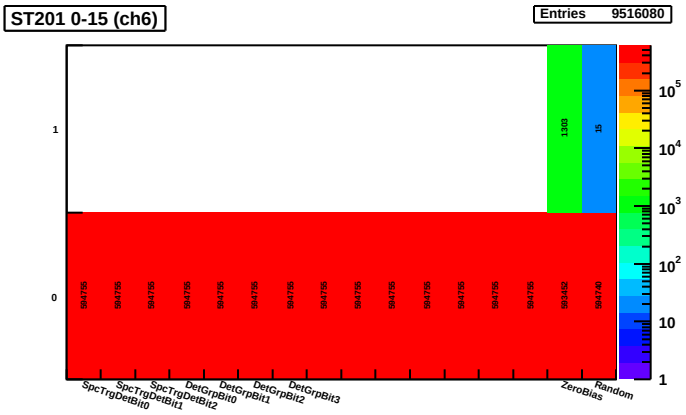

VT201 0-15 (ch1)
Entries 9516080
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

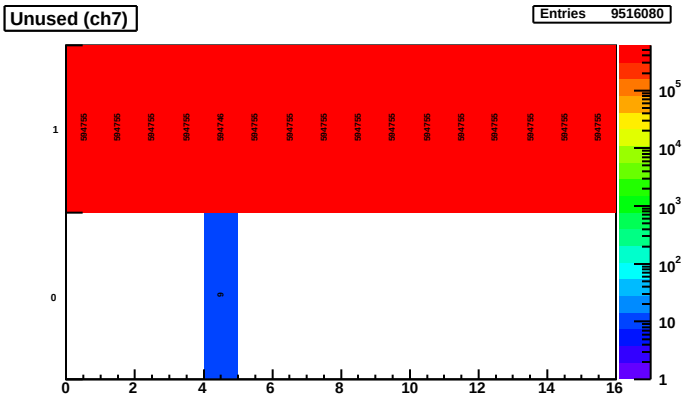

Unused (ch2)
Entries 9516080

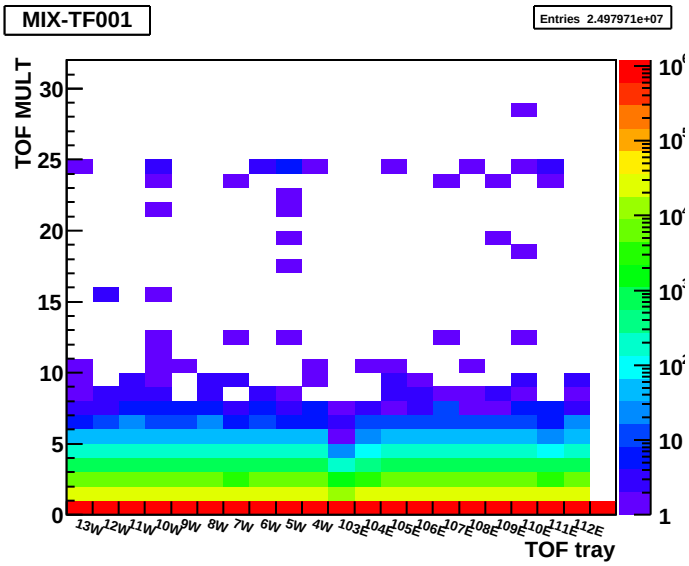

EM201 0-15 (ch3)
Entries 9516080
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

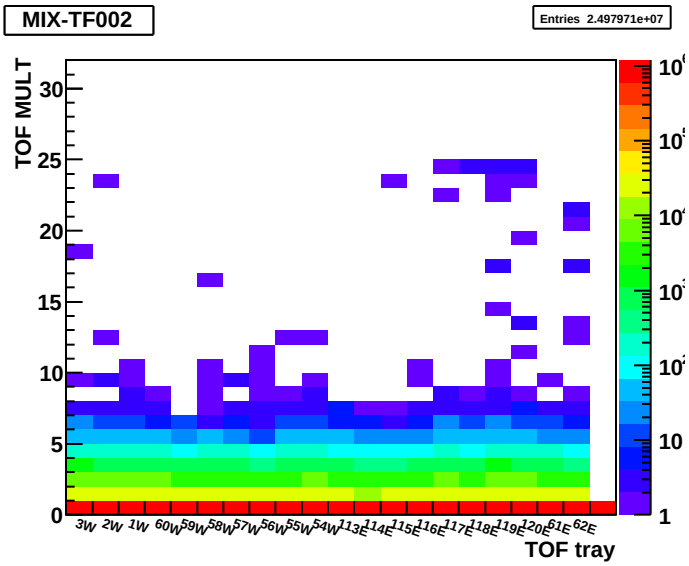

RAT board (ch4)
Entries 9516080
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

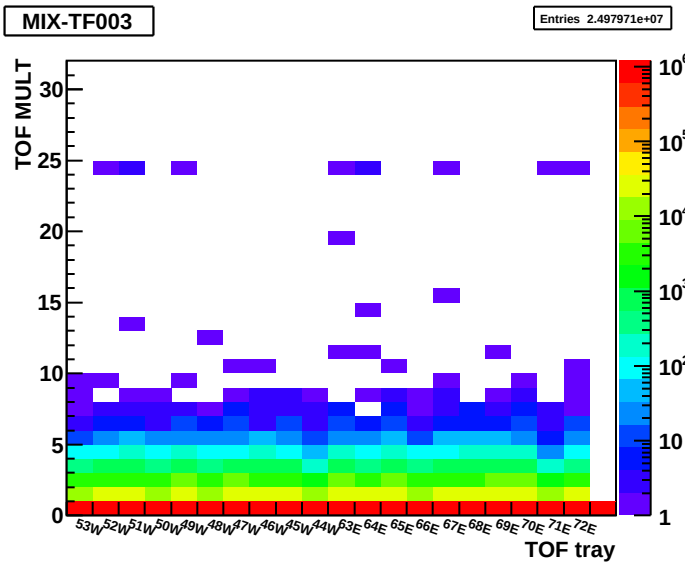

FP201 0-15 (ch5)
Entries 9516080
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

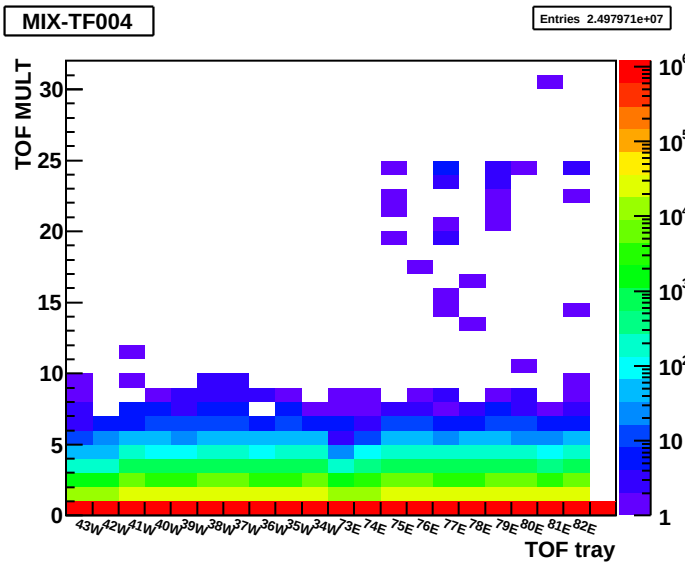

ST201 0-15 (ch6)
Entries 9516080
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

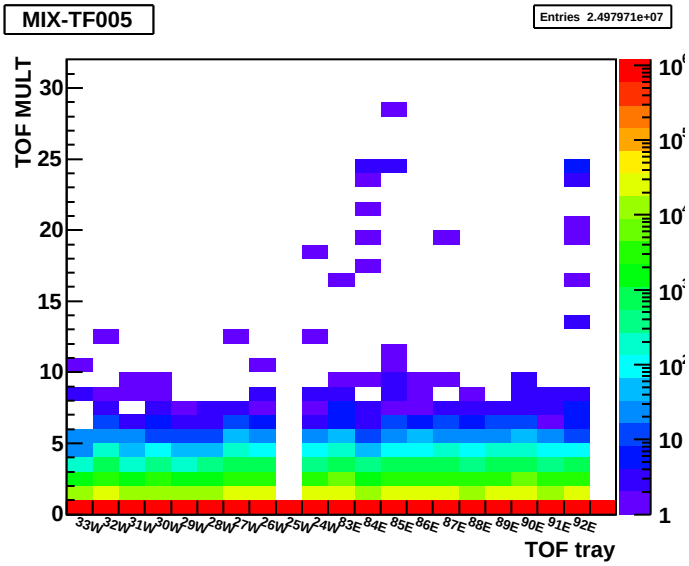

Unused (ch7)
Entries 9516080

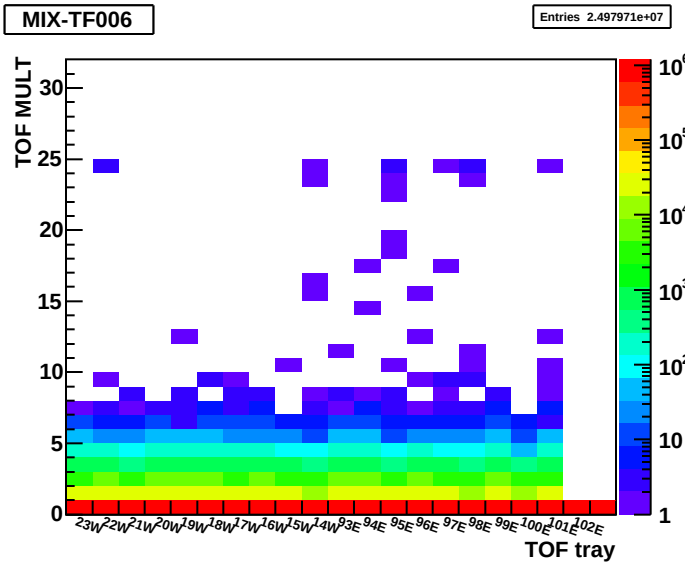

MIX-TF001
Entries 2.497971e+07
TOF MULT
TOF tray

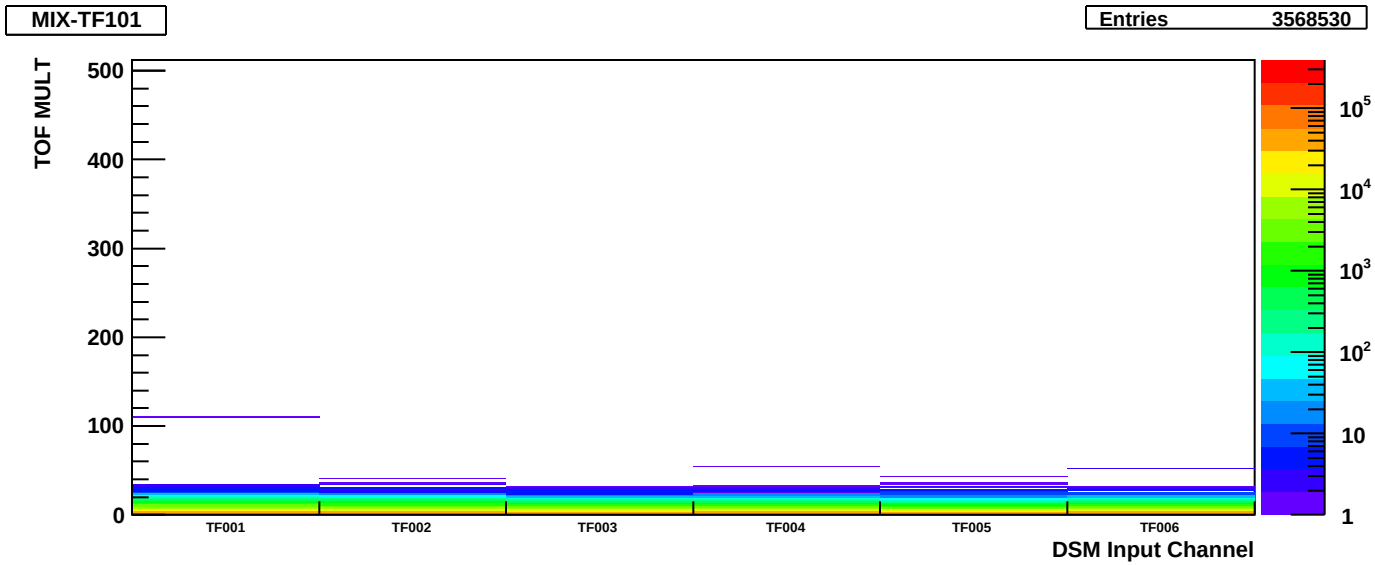

MIX-TF002
Entries 2.497971e+07
TOF MULT
TOF tray

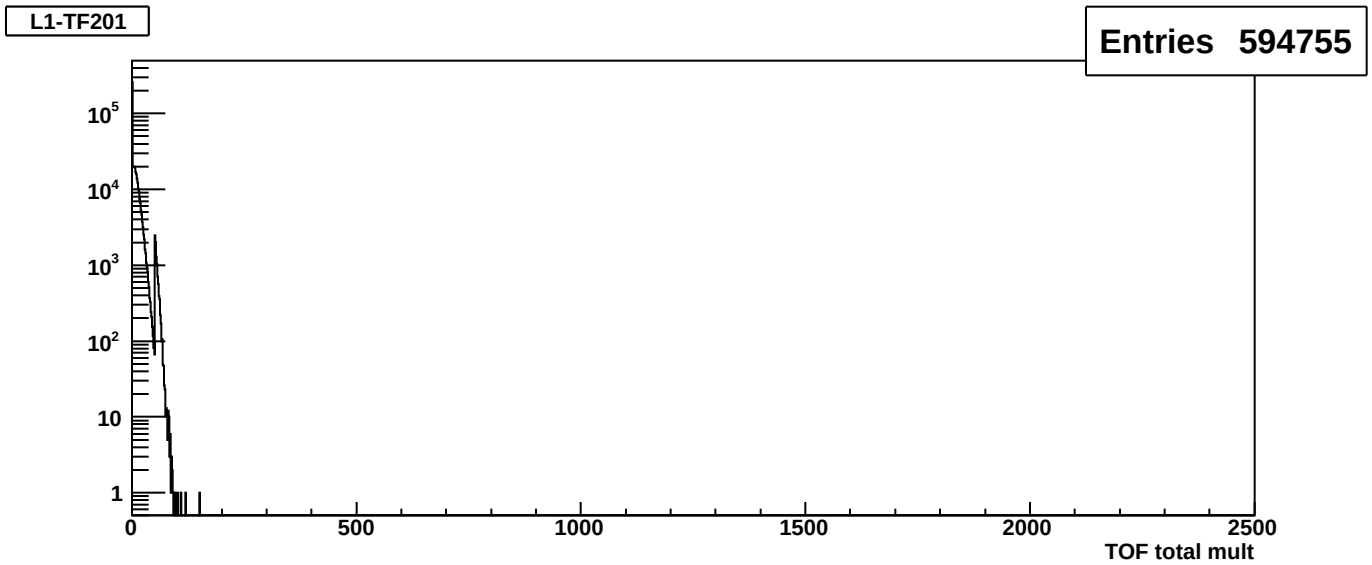

MIX-TF003
Entries 2.497971e+07
TOF MULT
TOF tray

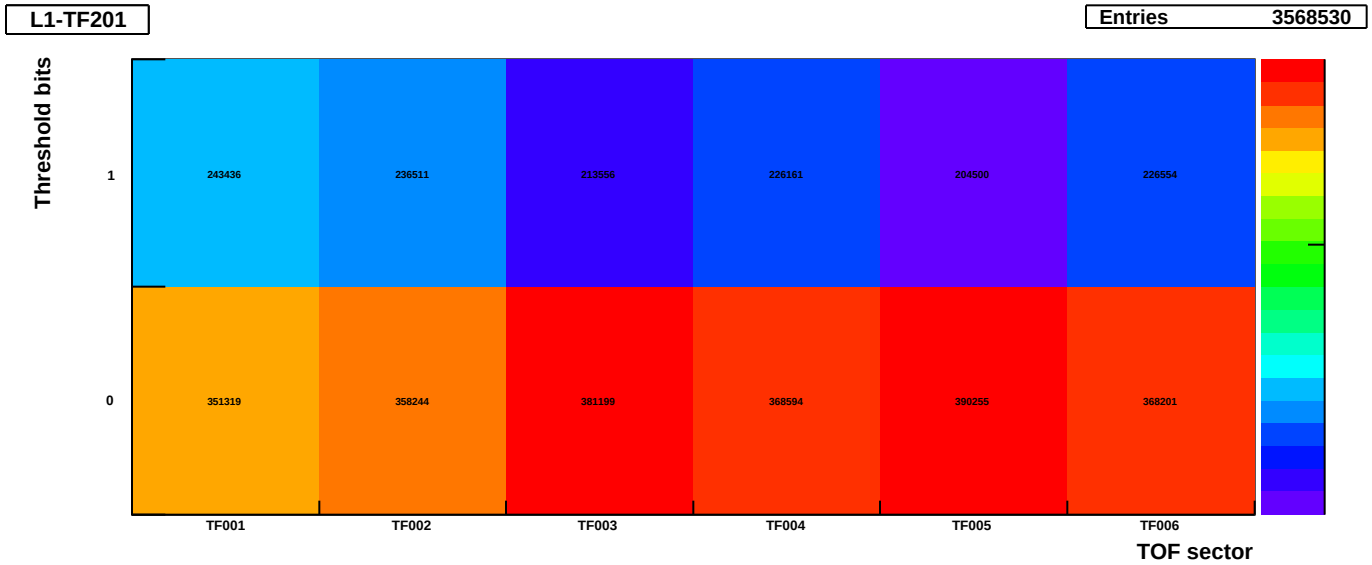

MIX-TF004
Entries 2.497971e+07
TOF MULT
TOF tray

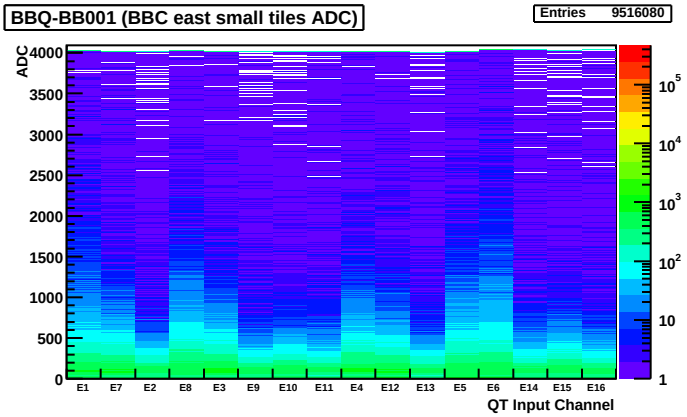

MIX-TF005
Entries 2.497971e+07
TOF MULT
TOF tray

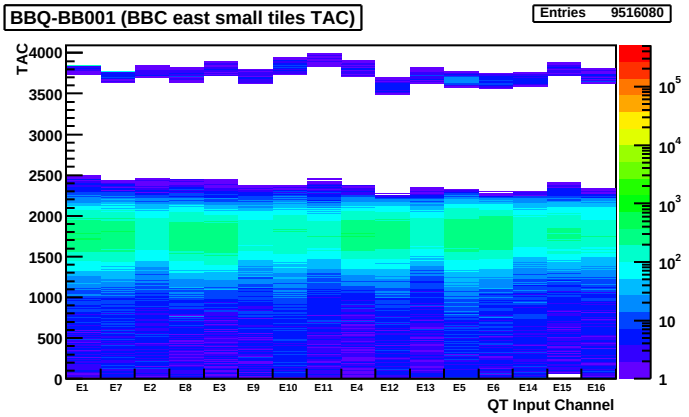

MIX-TF006
Entries 2.497971e+07
TOF MULT
TOF tray

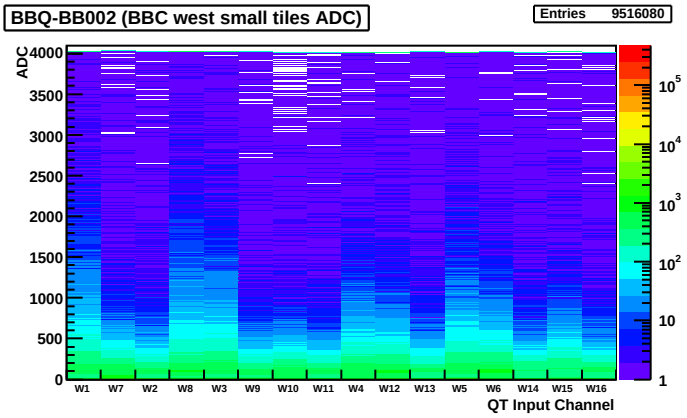

MIX-TF101
Entries 3568530
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

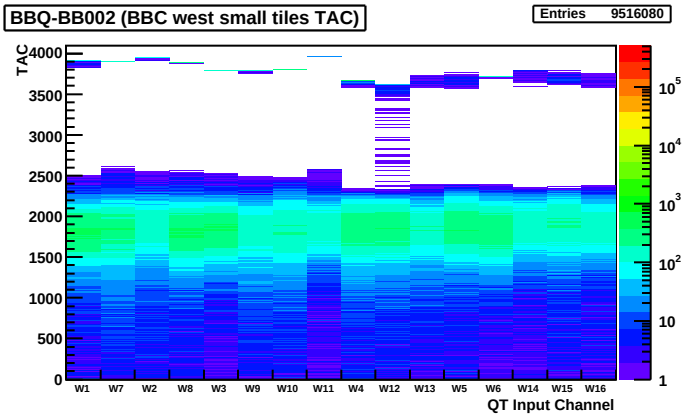

L1-TF201
Entries 594755
10^5
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

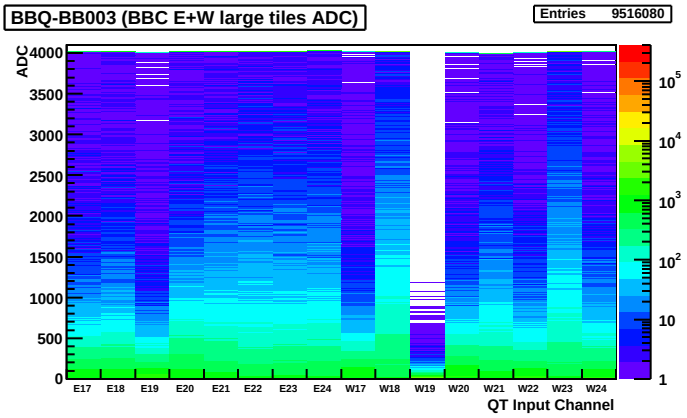

L1-TF201
Entries 3568530
Threshold bits
1
0
243436
236511
213556
226161
204500
226554
351319
358244
381199
368594
390255
368201
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

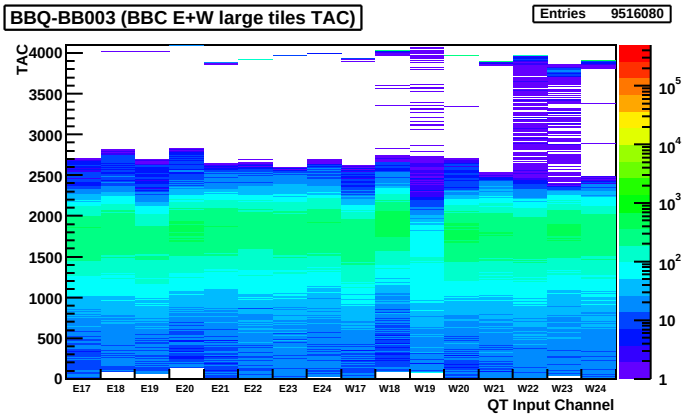

BBQ-BB001 (BBC east small tiles ADC)
Entries 9516080
ADC
QT Input Channel

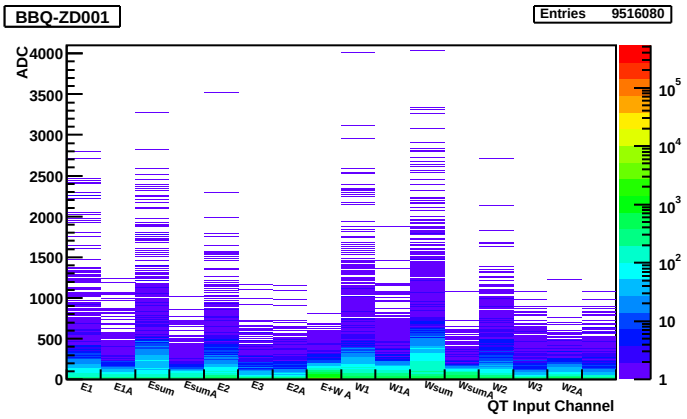

BBQ-BB001 (BBC east small tiles TAC)
Entries 9516080
TAC
QT Input Channel

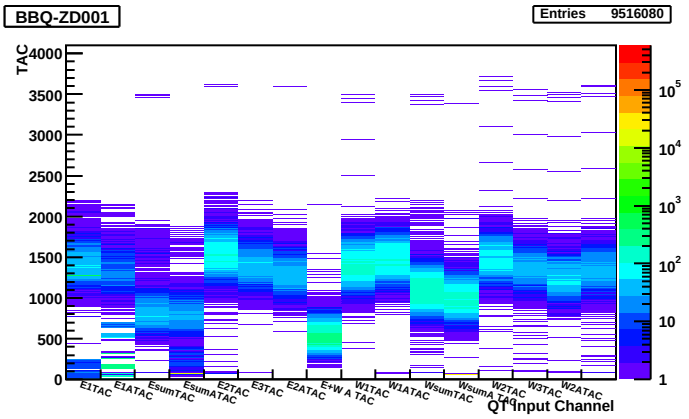

BBQ-BB002 (BBC west small tiles ADC)
Entries 9516080
ADC
QT Input Channel

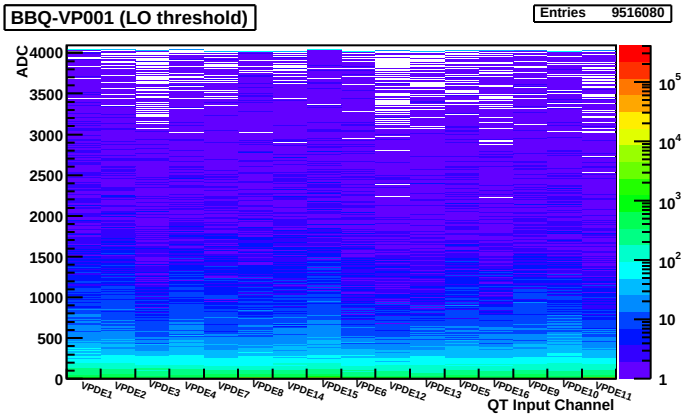

BBQ-BB002 (BBC west small tiles TAC)
Entries 9516080
TAC
QT Input Channel

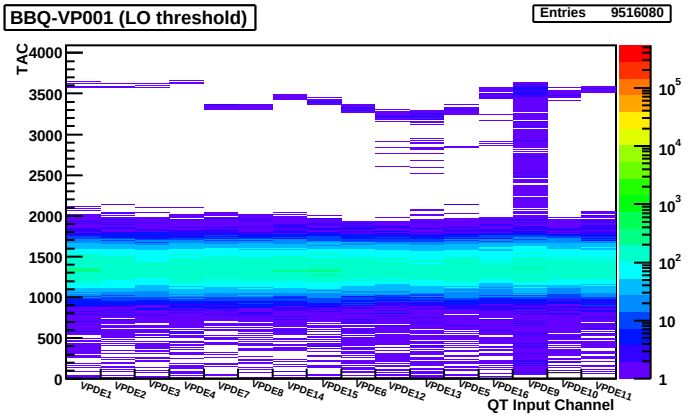

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 9516080
ADC
QT Input Channel

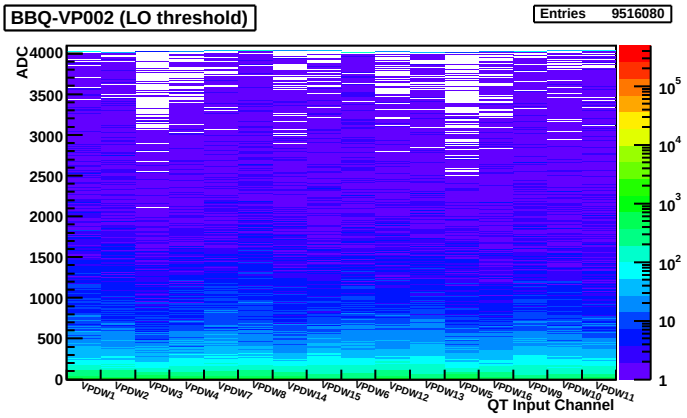

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 9516080
TAC
QT Input Channel

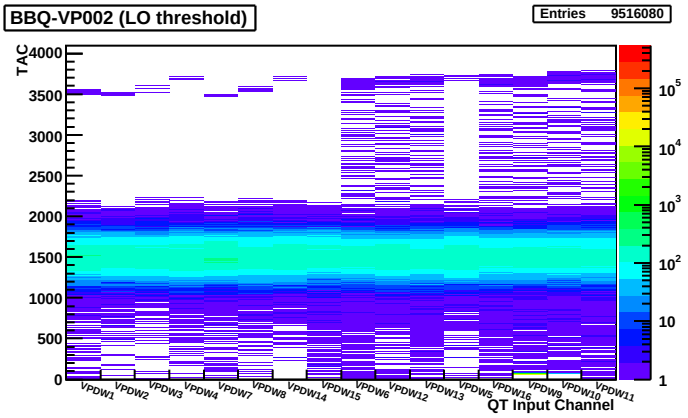

BBQ-ZD001
Entries 9516080
ADC
QT Input Channel

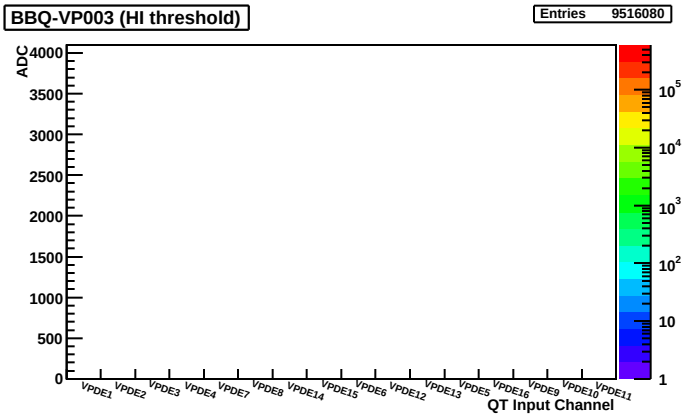

BBQ-ZD001
Entries 9516080
TAC
QT Input Channel

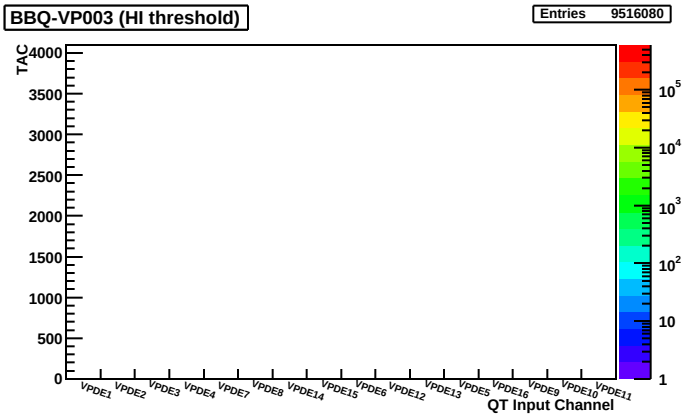

BBQ-VP001 (LO threshold)
Entries 9516080
ADC
QT Input Channel

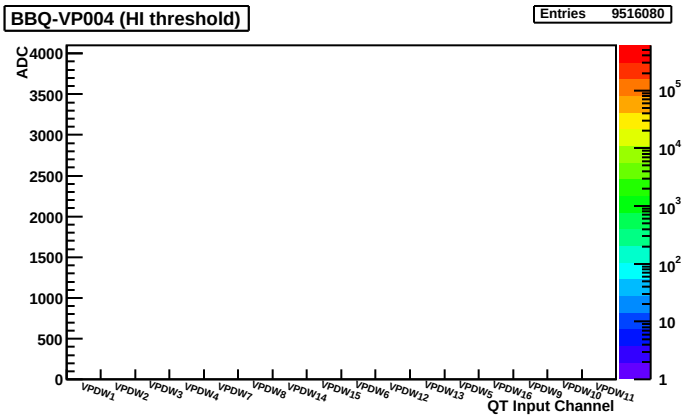

BBQ-VP001 (LO threshold)
Entries 9516080
TAC
QT Input Channel

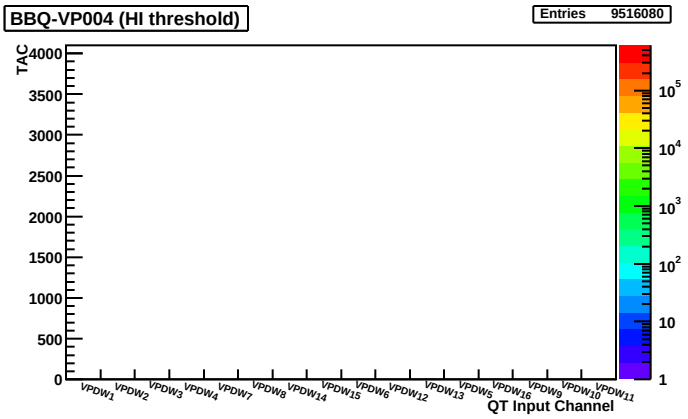

BBQ-VP002 (LO threshold)
Entries 9516080
ADC
QT Input Channel

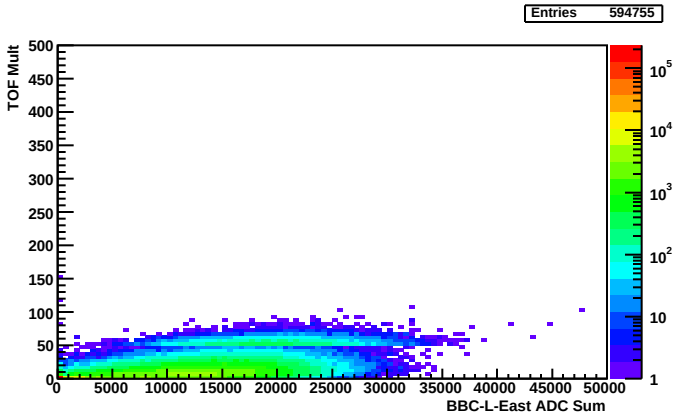

BBQ-VP002 (LO threshold)
Entries 9516080
TAC
QT Input Channel

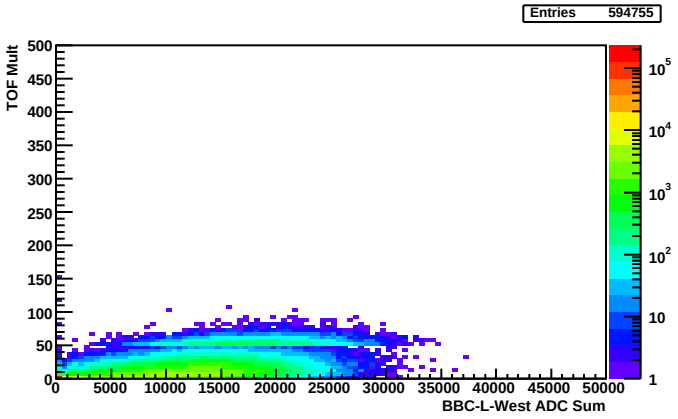

BBQ-VP003 (HI threshold)
Entries 9516080
ADC
QT Input Channel

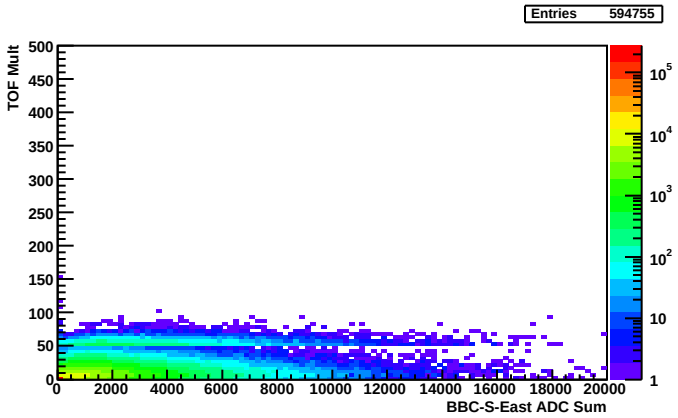

BBQ-VP003 (HI threshold)
Entries 9516080
TAC
QT Input Channel

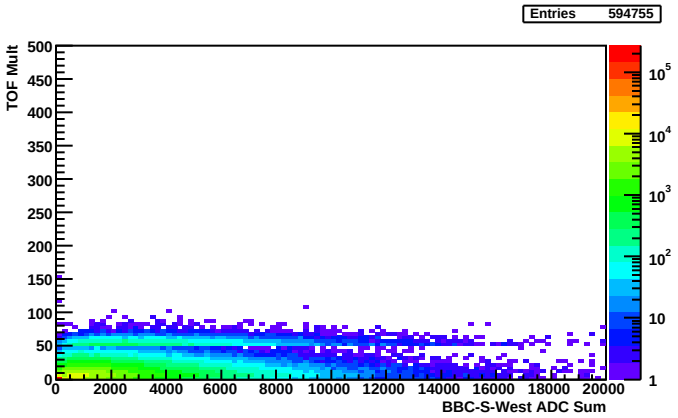

BBQ-VP004 (HI threshold)
Entries 9516080
ADC
QT Input Channel

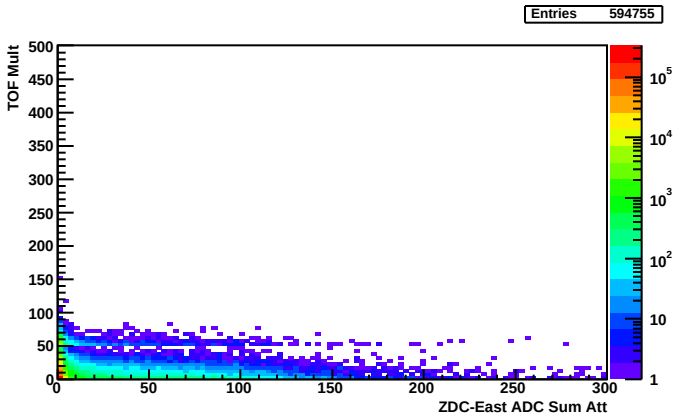

BBQ-VP004 (HI threshold)
Entries 9516080
TAC
QT Input Channel

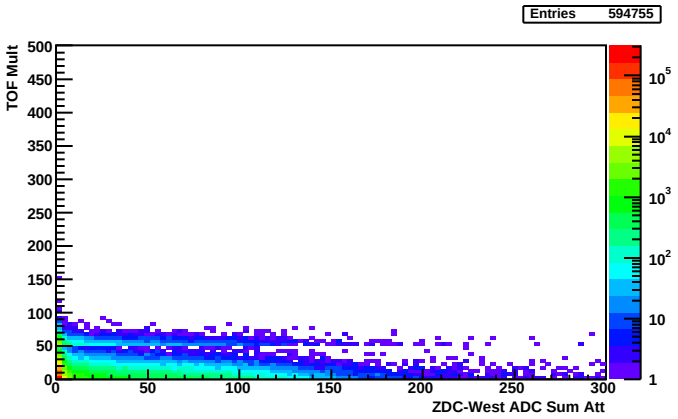

Entries 594755
TOF Mult
BBC-L-East ADC Sum

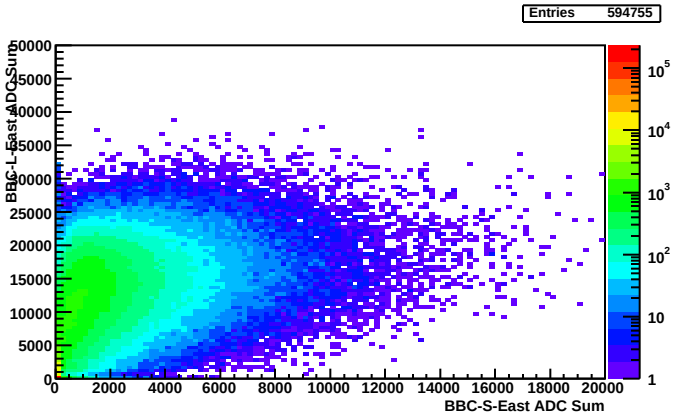

Entries 594755
TOF Mult
BBC-L-West ADC Sum

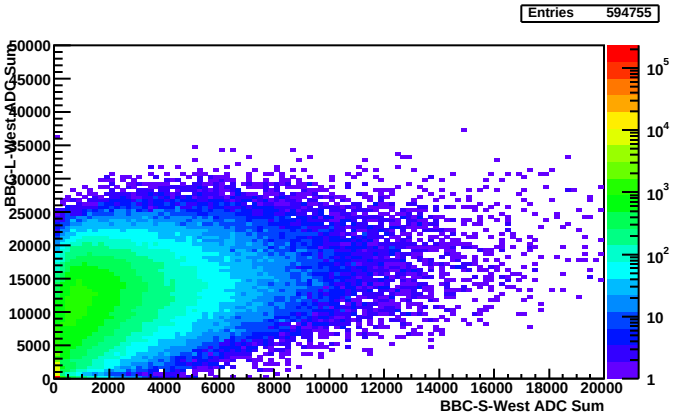

Entries 594755
TOF Mult
BBC-S-East ADC Sum

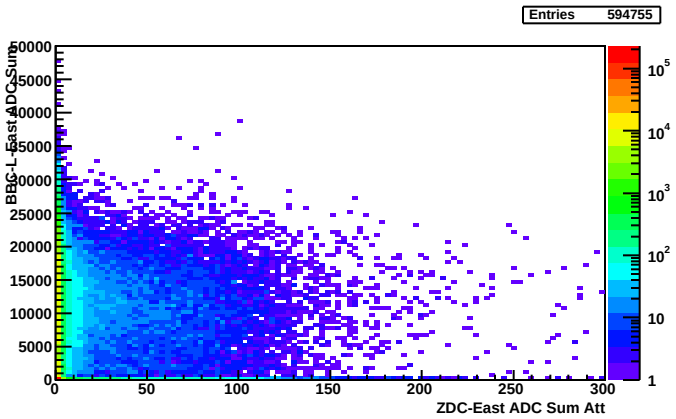

Entries 594755
TOF Mult
BBC-S-West ADC Sum

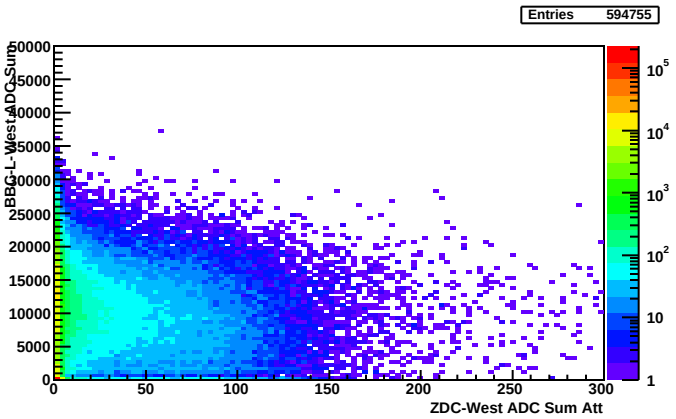

Entries 594755
TOF Mult
ZDC-East ADC Sum Att

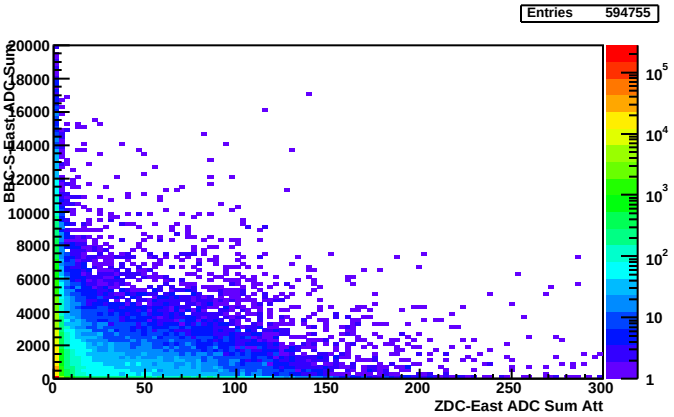

Entries 594755
TOF Mult
ZDC-West ADC Sum Att

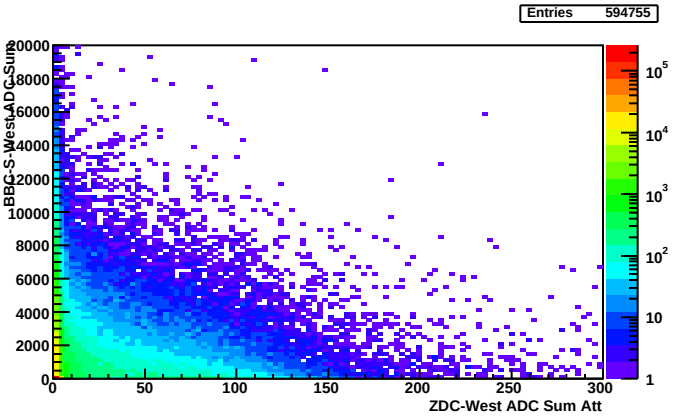

Entries 594755
BBC-L-East ADC Sum
BBC-S-East ADC Sum

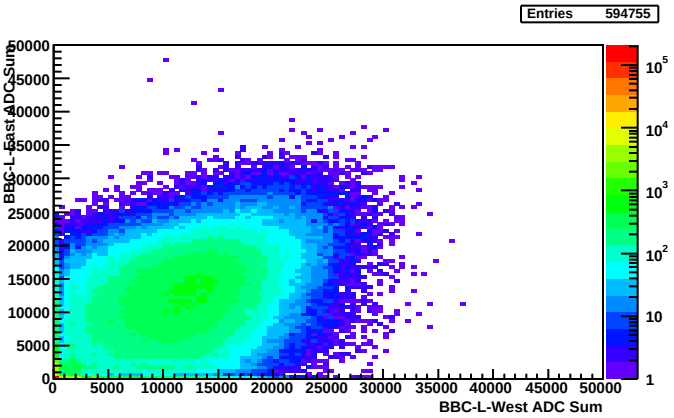

Entries 594755
BBC-L-West ADC Sum
BBC-S-West ADC Sum

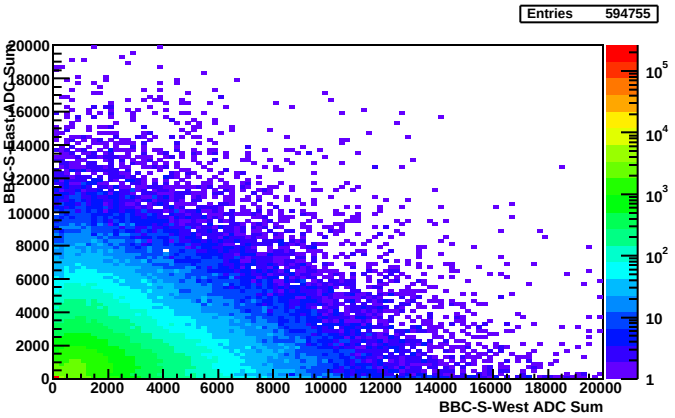

Entries 594755
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

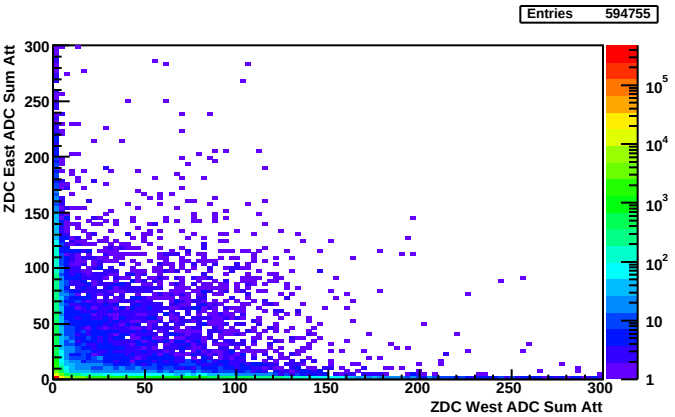

Entries 594755
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

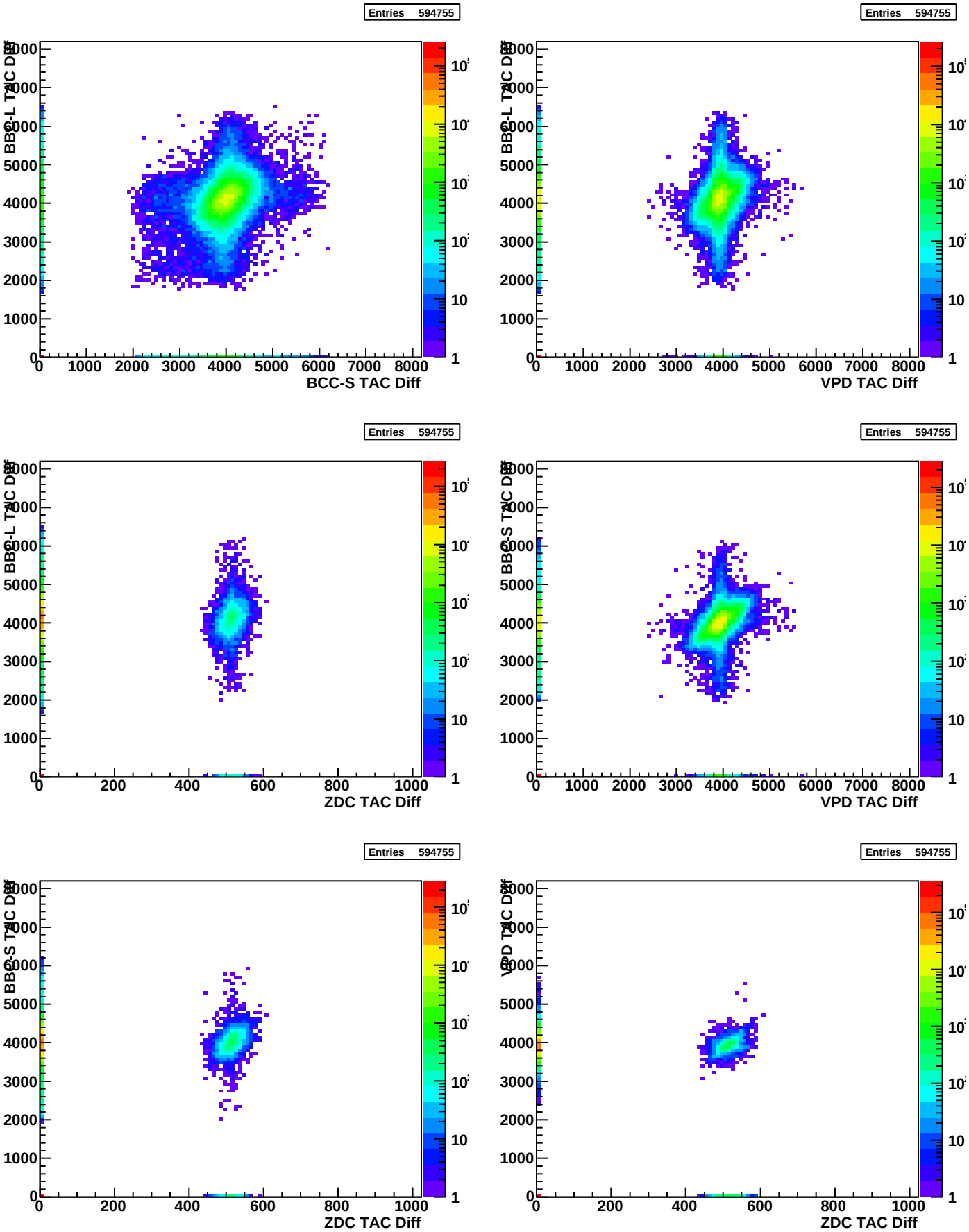

Entries 594755
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

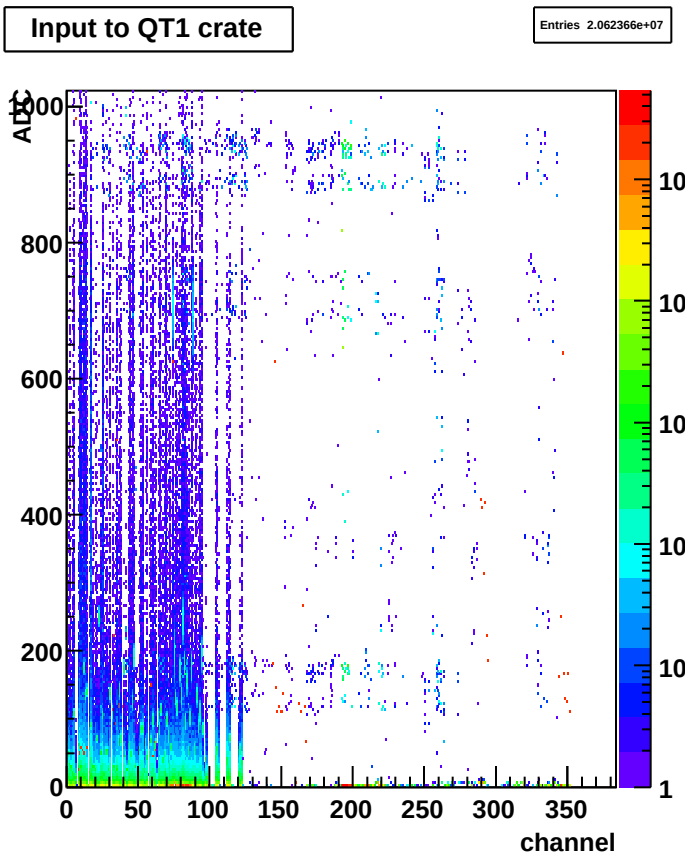

Entries 594755
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

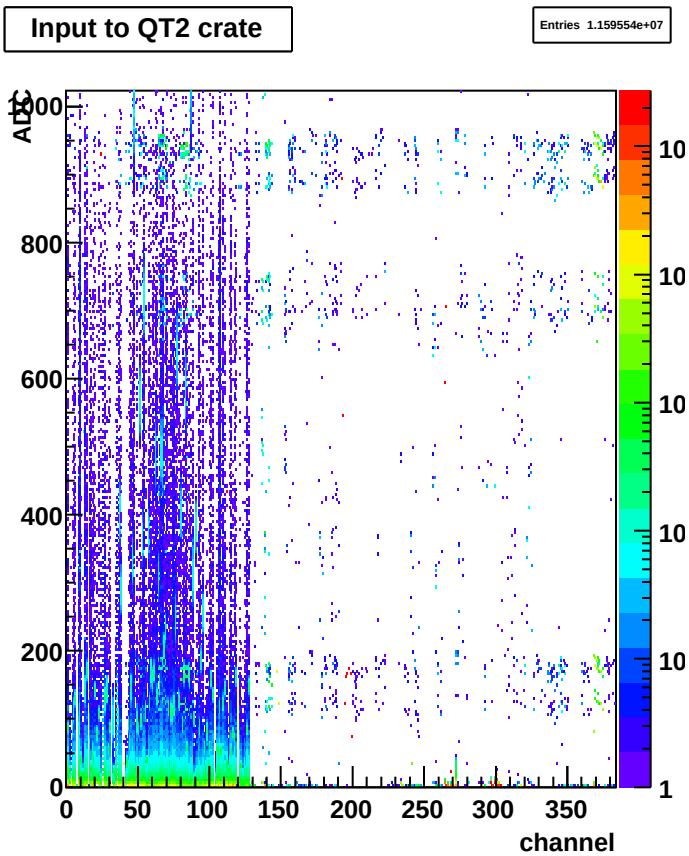

Entries 594755
BBC-L-East ADC Sum
BBC-L-West ADC Sum

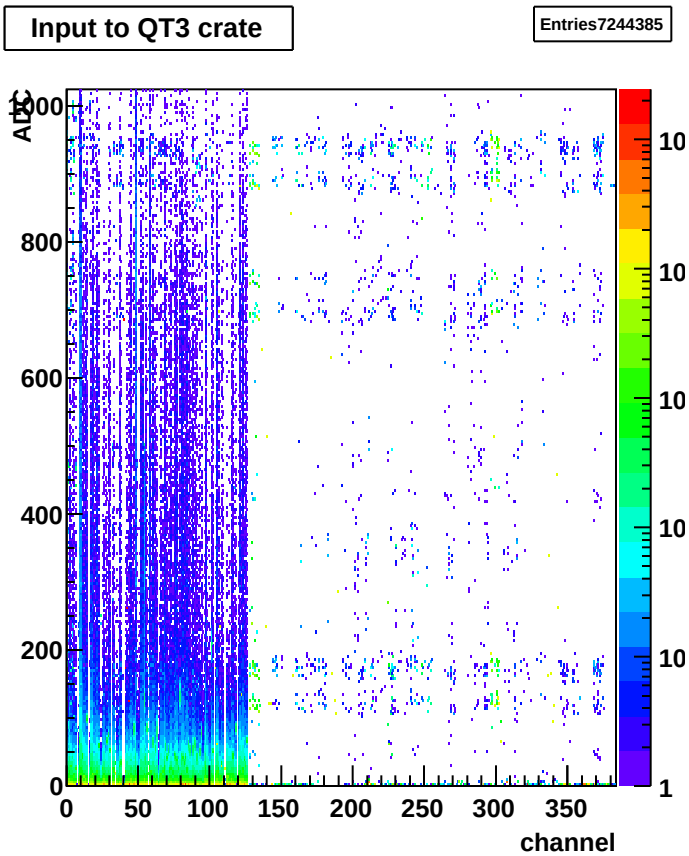

Entries 594755
BBC-S-East ADC Sum
BBC-S-West ADC Sum

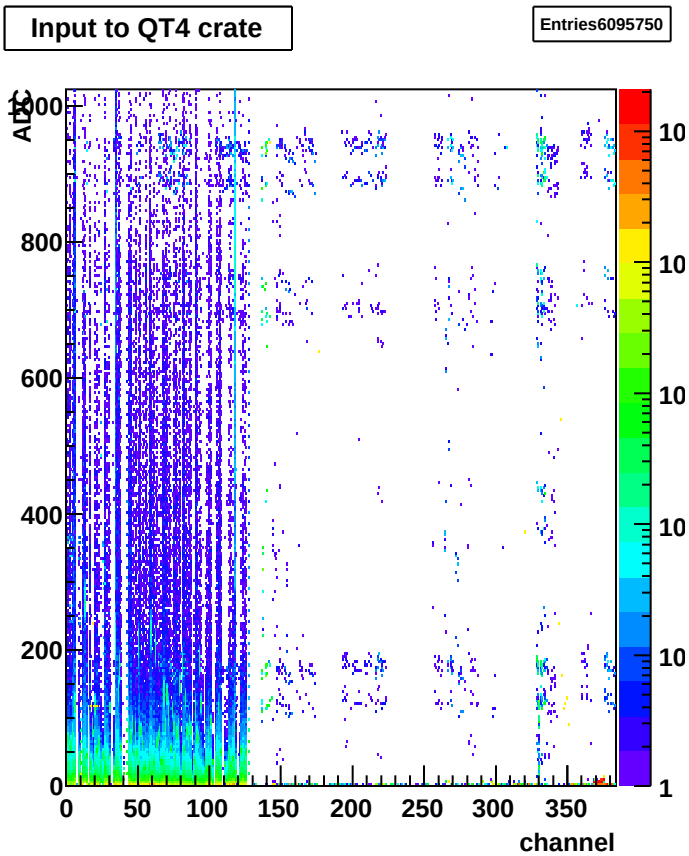

Entries 594755
ZDC East ADC Sum Att
ZDC West ADC Sum Att

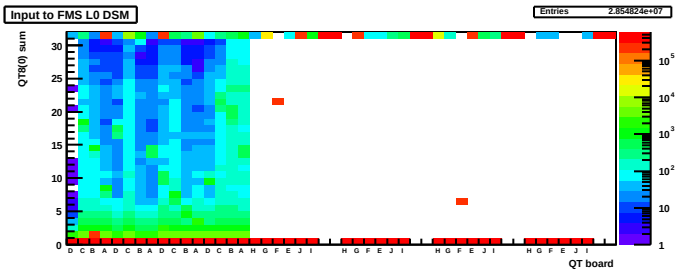

Entries 594755
BBC-L TAC Diff
BCC-S TAC Diff
Entries 594755
BBC-L TAC Diff
VPD TAC Diff
Entries 594755
BBC-L TAC Diff
ZDC TAC Diff
Entries 594755
BBC-S TAC Diff
VPD TAC Diff
Entries 594755
BBC-S TAC Diff
ZDC TAC Diff
Entries 594755
VPD TAC Diff
ZDC TAC Diff

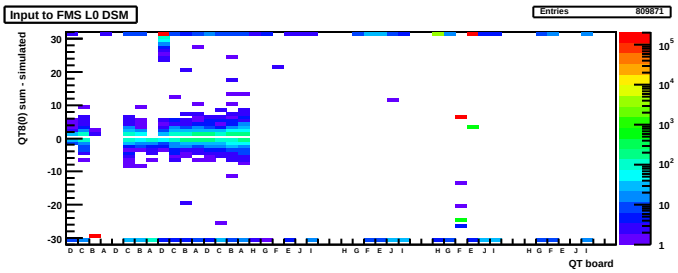

Input to QT1 crate
Entries 2.062366e+07
ADC
channel

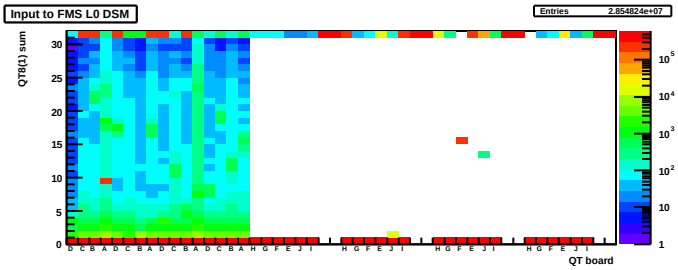

Input to QT2 crate
Entries 1.159554e+07
ADC
channel

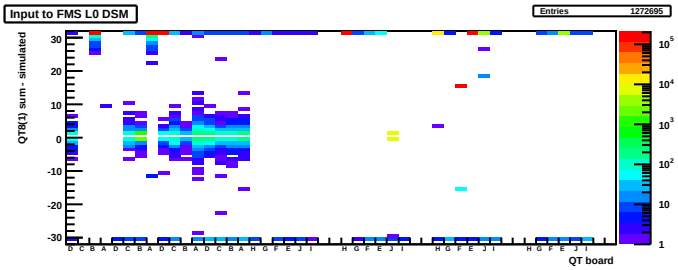

Input to QT3 crate
Entries7244385
ADC
channel

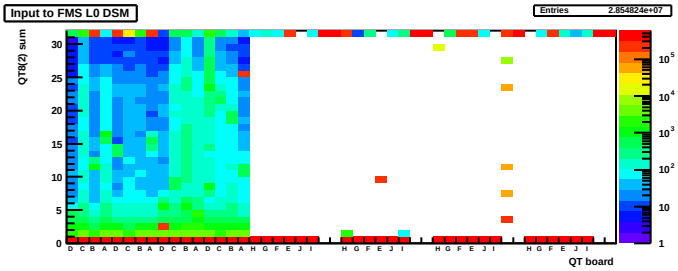

Input to QT4 crate
Entries6095750
ADC
channel

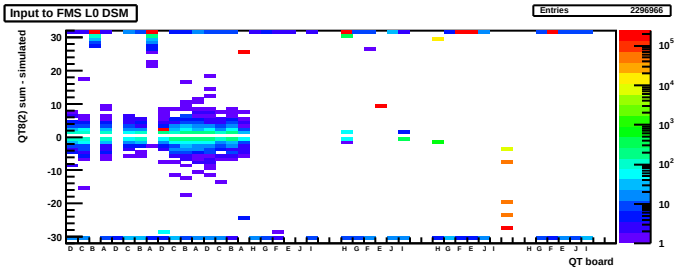

Input to FMS L0 DSM
Entries 2.854824e+07
QT8(0) sum
QT board

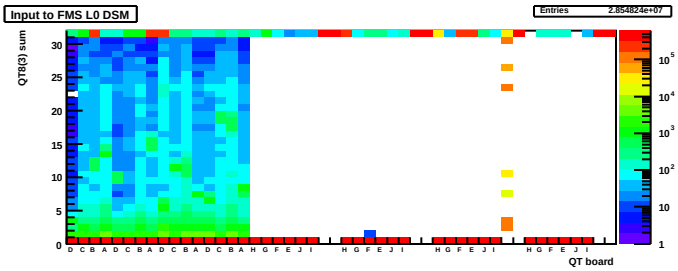

Input to FMS L0 DSM
Entries 809871
QT8(0) sum - simulated
QT board

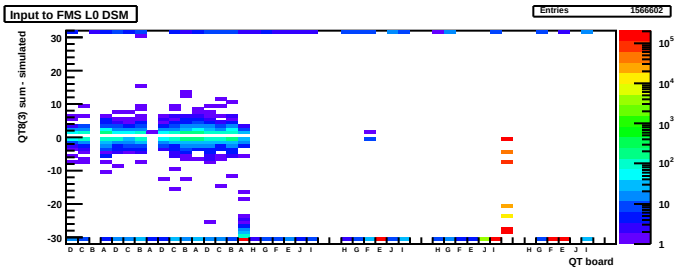

Input to FMS L0 DSM
Entries 2.854824e+07
QT8(1) sum
QT board

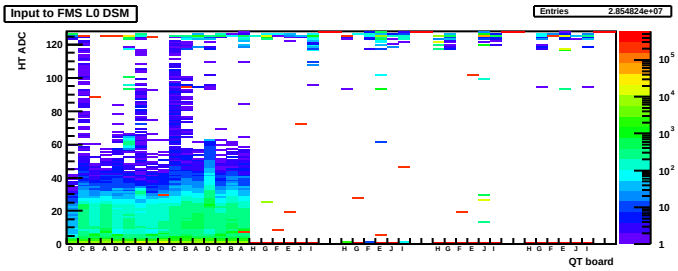

Input to FMS L0 DSM
Entries 1272695
QT8(1) sum - simulated
QT board

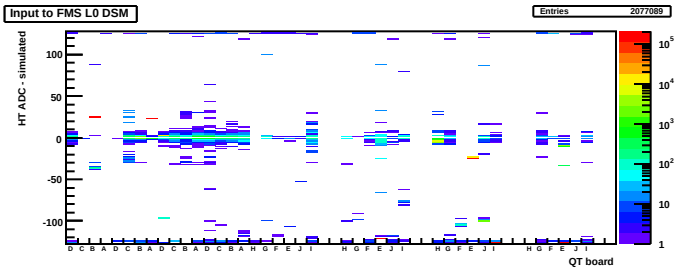

Input to FMS L0 DSM
Entries 2.854824e+07
QT8(2) sum
QT board

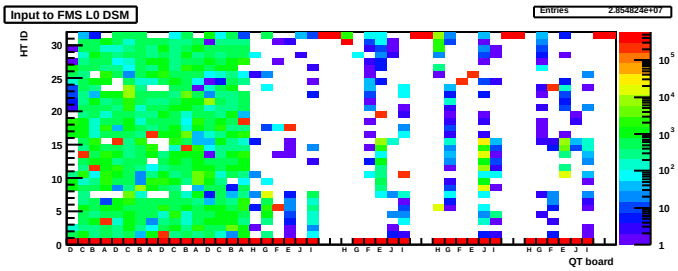

Input to FMS L0 DSM
Entries 2296966
QT8(2) sum - simulated
QT board

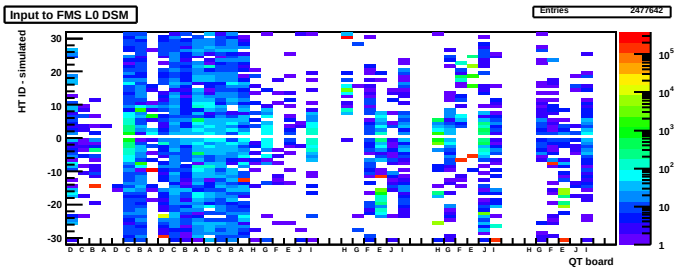

Input to FMS L0 DSM
Entries 2.854824e+07
QT8(3) sum
QT board

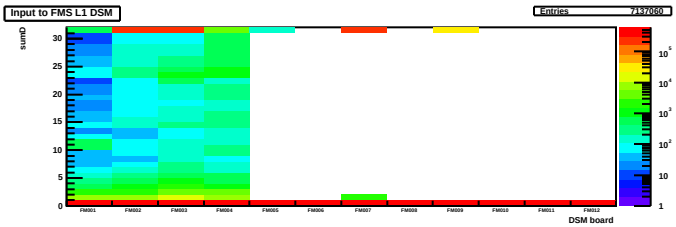

Input to FMS L0 DSM
Entries 1566602
QT8(3) sum - simulated
QT board

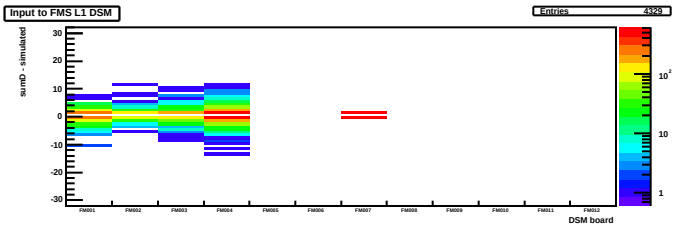

Input to FMS L0 DSM
Entries 2.854824e+07
HT ADC
QT board

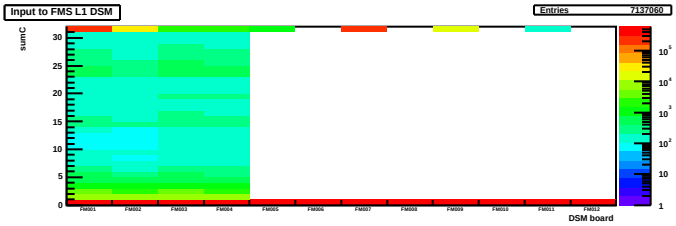

Input to FMS L0 DSM
Entries 2077089
HT ADC - simulated
QT board

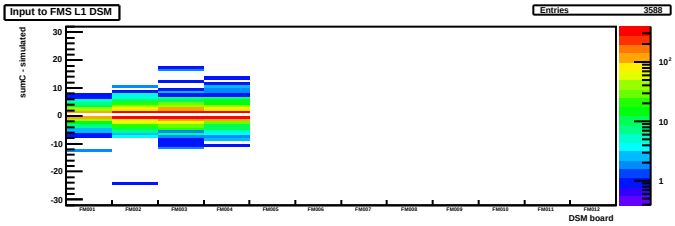

Input to FMS L0 DSM
Entries 2.854824e+07
HT ID
QT board

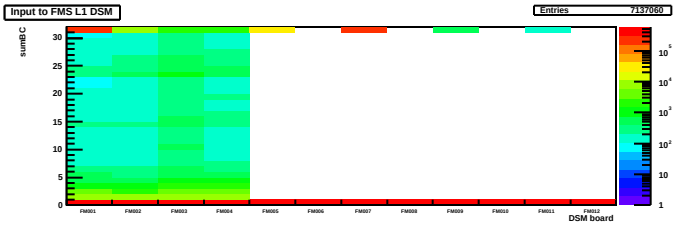

Input to FMS L0 DSM
Entries 2477642
HT ID - simulated
QT board

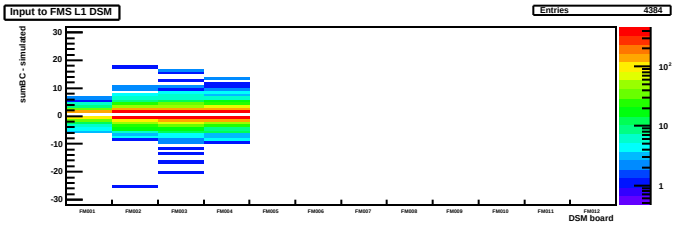

Input to FMS L1 DSM
Entries 7137060
sumD
DSM board

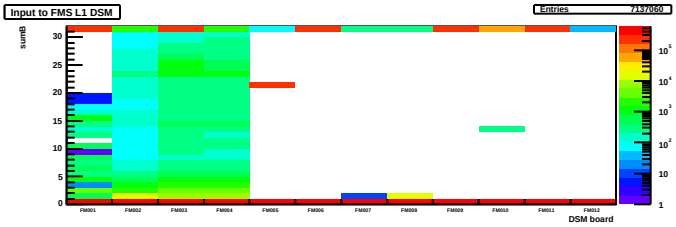

Input to FMS L1 DSM
Entries 4329
sumD - simulated
DSM board

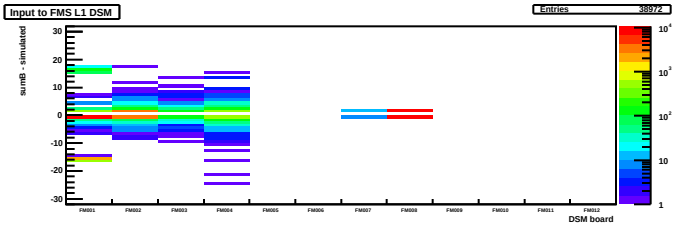

Input to FMS L1 DSM
Entries 7137060
sumC
DSM board

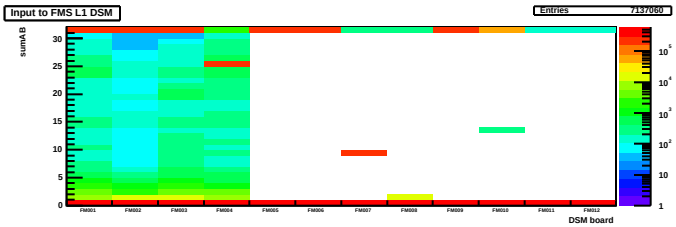

Input to FMS L1 DSM
Entries 3588
sumC - simulated
DSM board

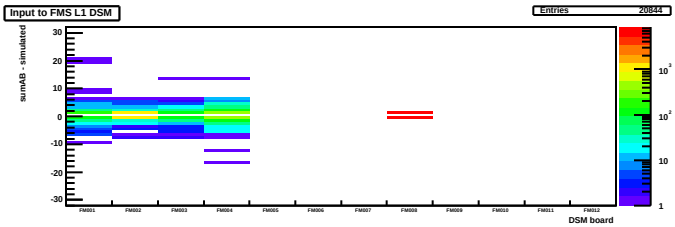

Input to FMS L1 DSM
Entries 7137060
sumBC
DSM board

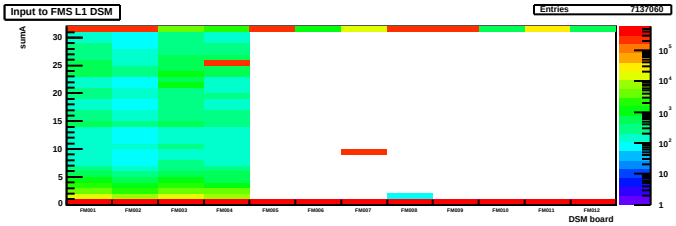

Input to FMS L1 DSM
Entries 4384
sumBC - simulated
DSM board

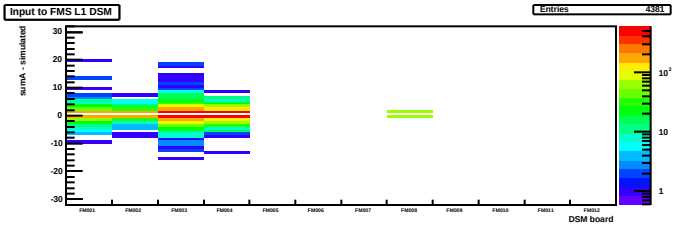

Input to FMS L1 DSM
Entries 7137060
sumB
DSM board

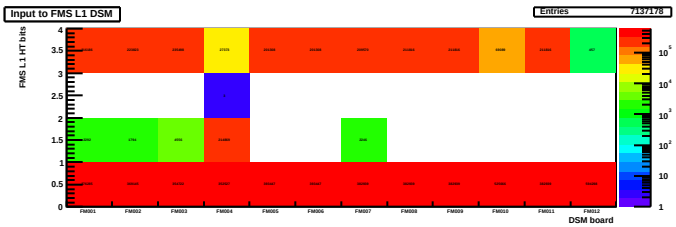

Input to FMS L1 DSM
Entries 38972
sumB - simulated
DSM board

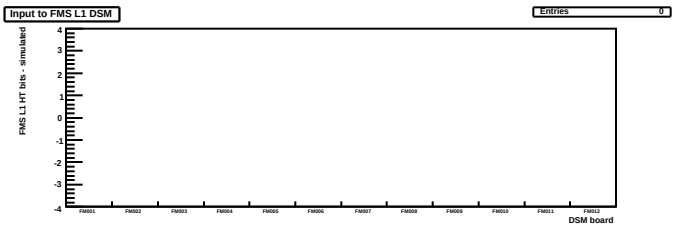

Input to FMS L1 DSM
Entries 7137060
sumAB
DSM board

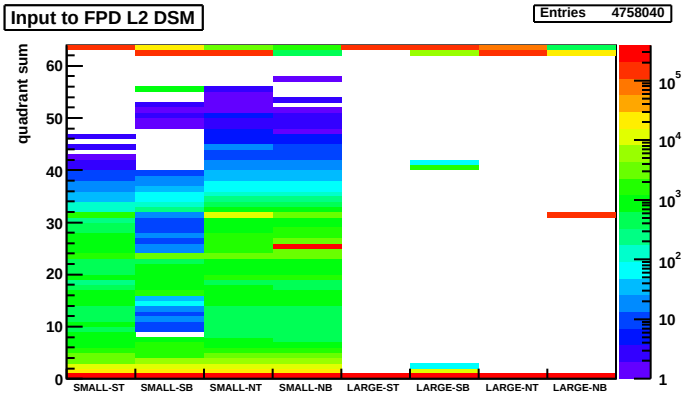

Input to FMS L1 DSM
Entries 20844
sumAB - simulated
DSM board

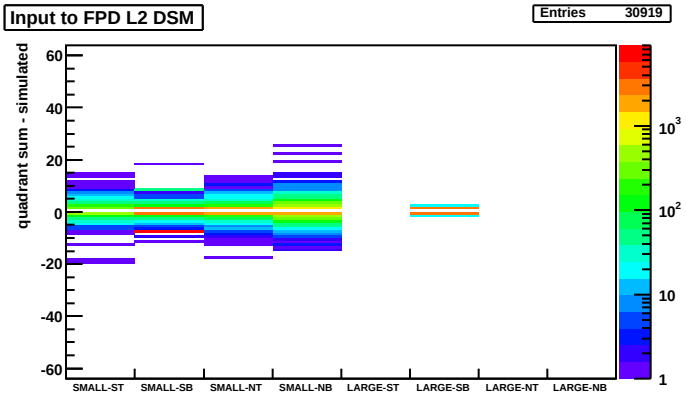

Input to FMS L1 DSM
Entries 7137060
sumA
DSM board

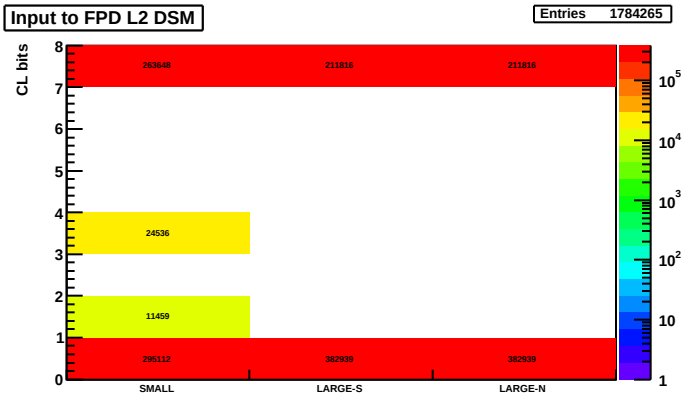

Input to FMS L1 DSM
Entries 4381
sumA - simulated
DSM board

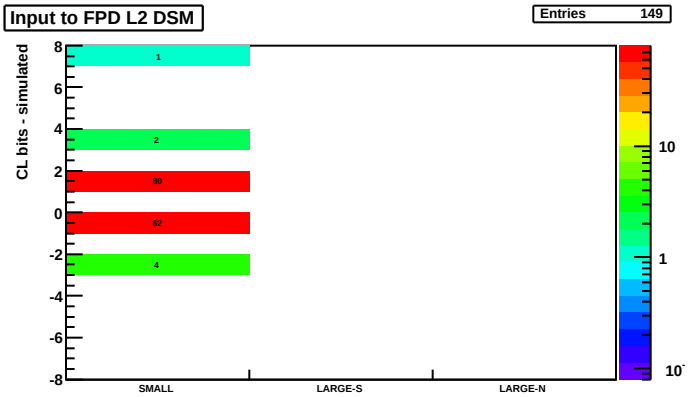

Input to FMS L1 DSM
Entries 7137178
FMS L1 HT bits
DSM board

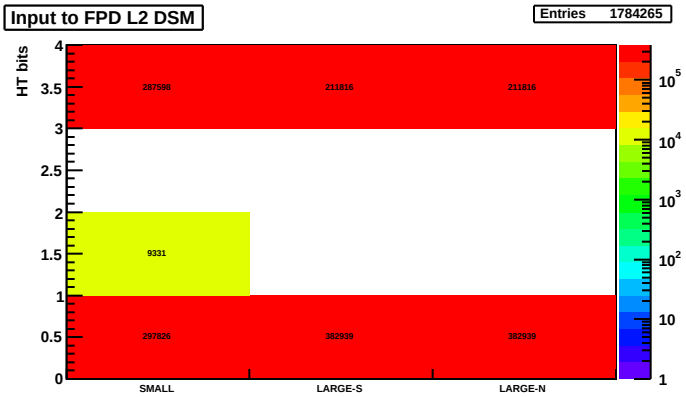

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

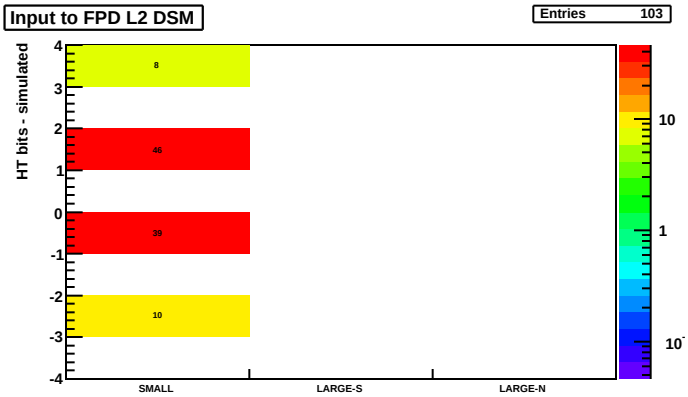

Input to FPD L2 DSM
Entries 4758040
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

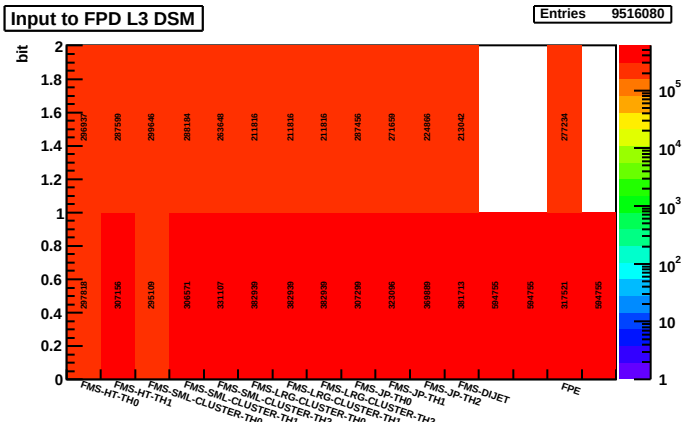

Input to FPD L2 DSM
Entries 30919
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

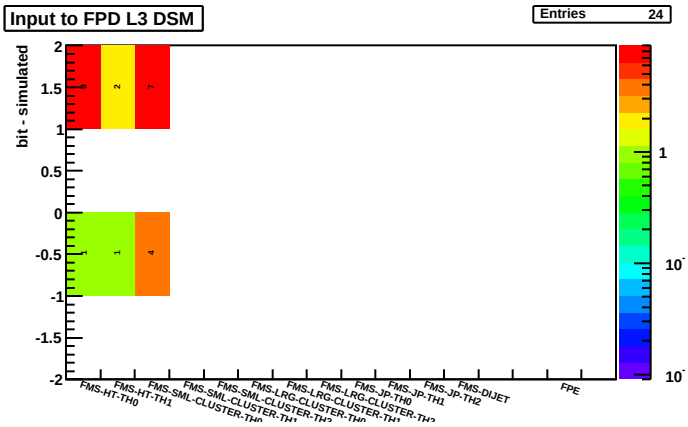

Input to FPD L2 DSM
Entries 1784265
CL bits
263648
211816
211816
24536
11459
295112
382939
382939
SMALL
LARGE-S
LARGE-N

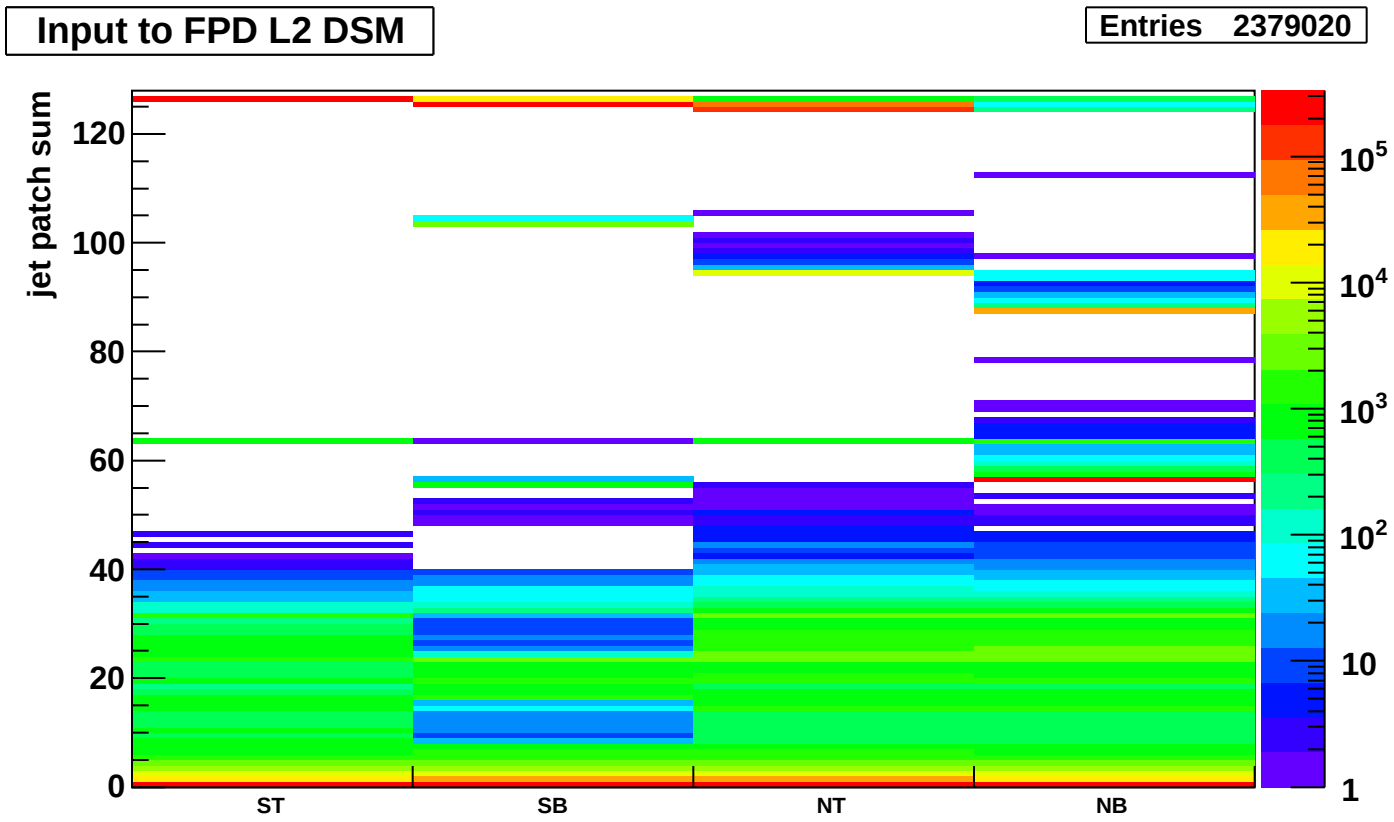

Input to FPD L2 DSM
Entries 149
CL bits - simulated
1
2
80
62
4
SMALL
LARGE-S
LARGE-N

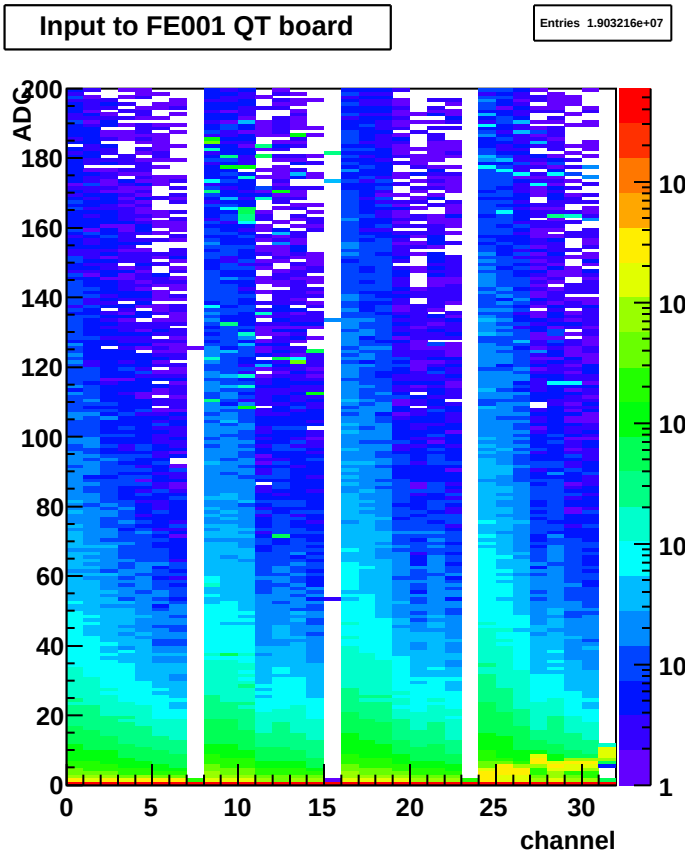

Input to FPD L2 DSM
Entries 1784265
HT bits
287598
211816
211816
9331
297826
382939
382939
SMALL
LARGE-S
LARGE-N

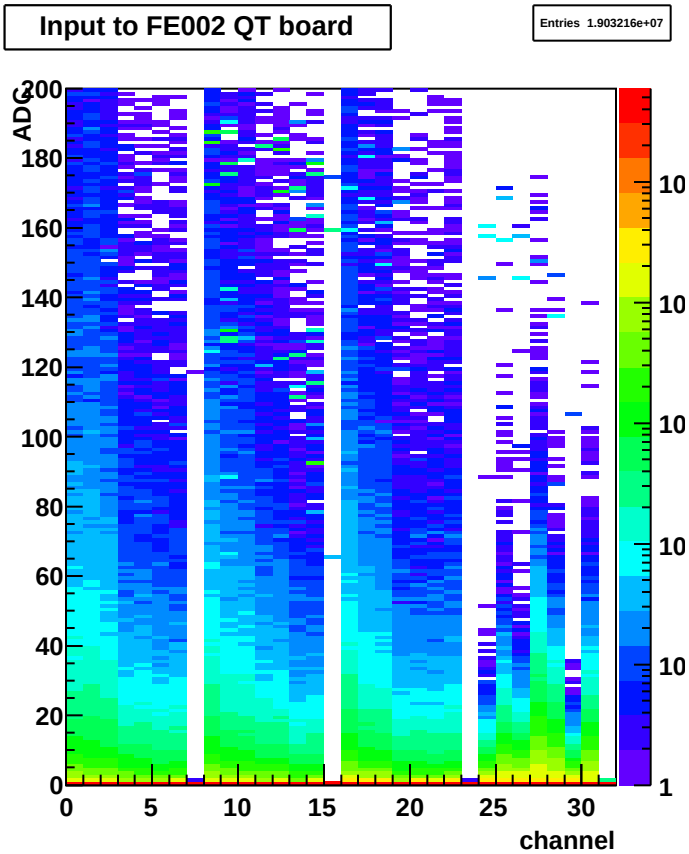

Input to FPD L2 DSM
Entries 103
HT bits - simulated
8
46
39
10
SMALL
LARGE-S
LARGE-N

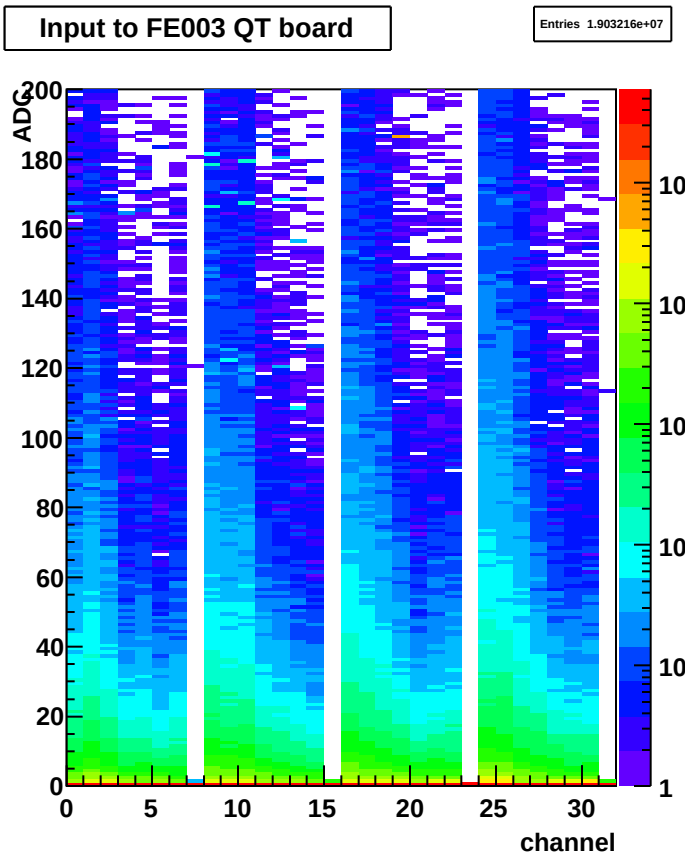

Input to FPD L3 DSM
Entries 9516080
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

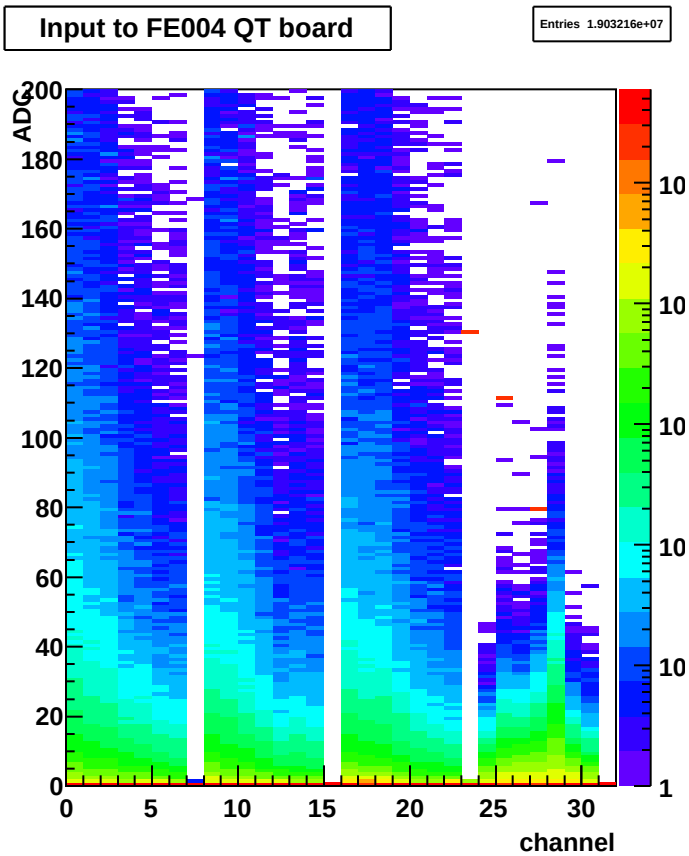

Input to FPD L3 DSM
Entries 24
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

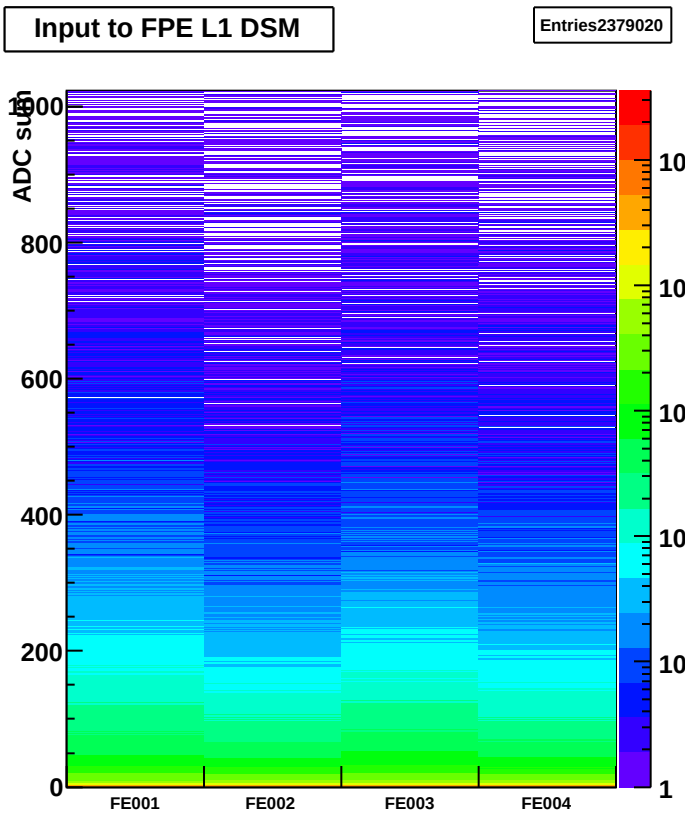

Input to FPD L2 DSM
Entries 2379020
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

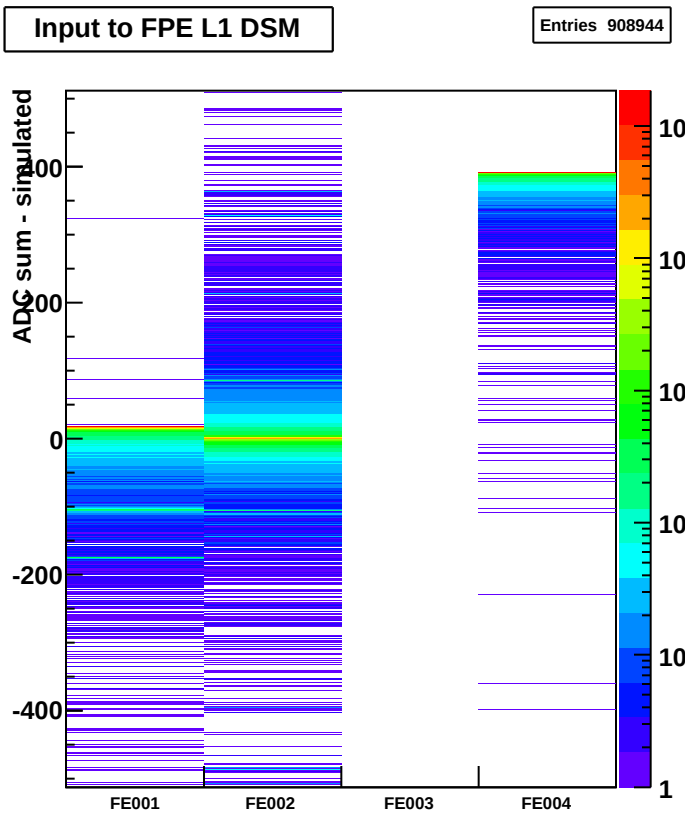

Input to FE001 QT board
Entries 1.903216e+07
ADC
channel

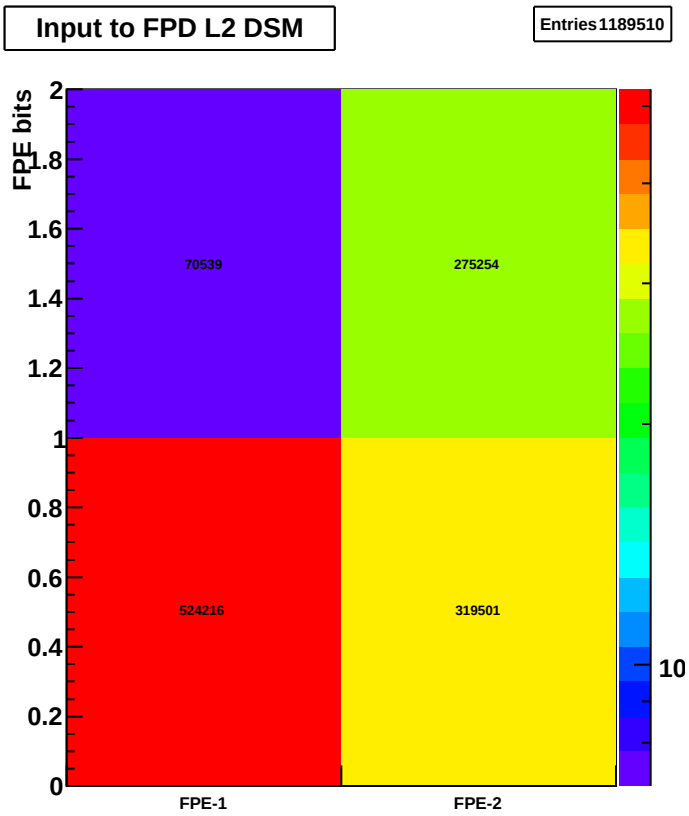

Input to FE002 QT board
Entries 1.903216e+07
ADC
channel

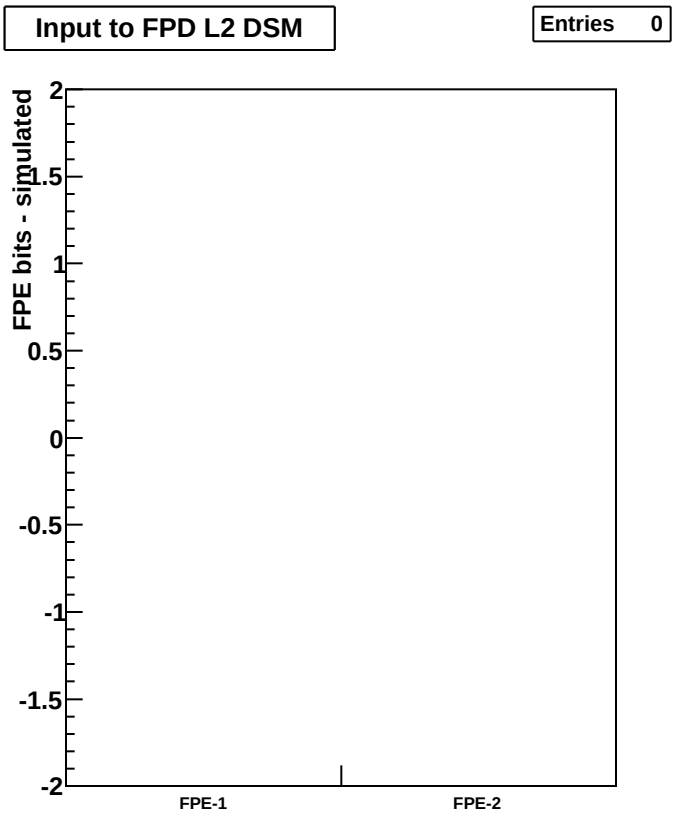

Input to FE003 QT board
Entries 1.903216e+07
ADC
channel


Input to FE004 QT board
Entries 1.903216e+07
ADC
channel


Input to FPE L1 DSM
Entries2379020
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 908944
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPD L2 DSM
Entries1189510
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
70539
275254
524216
319501
FPE-1
FPE-2
10


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