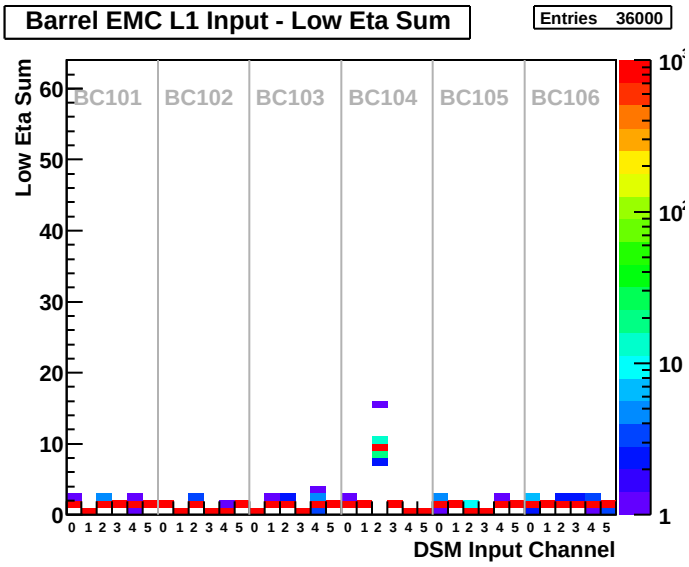
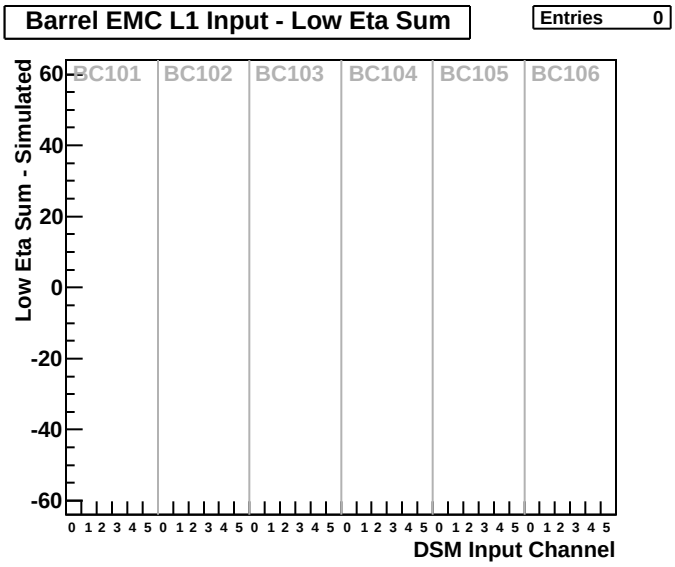
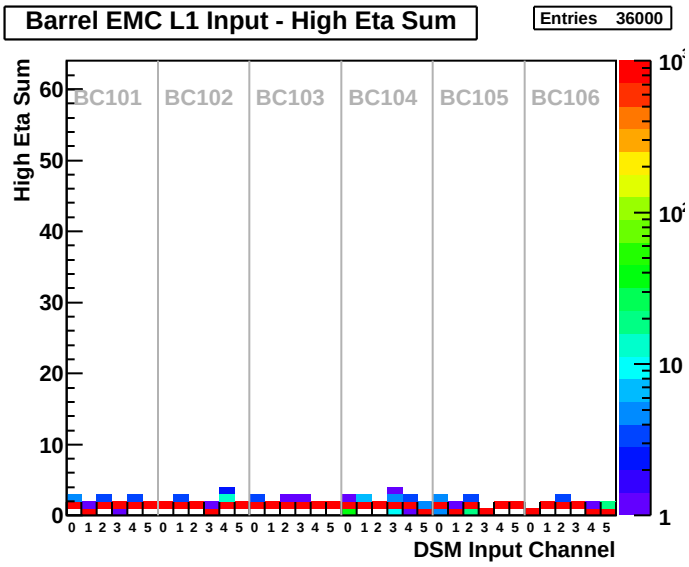
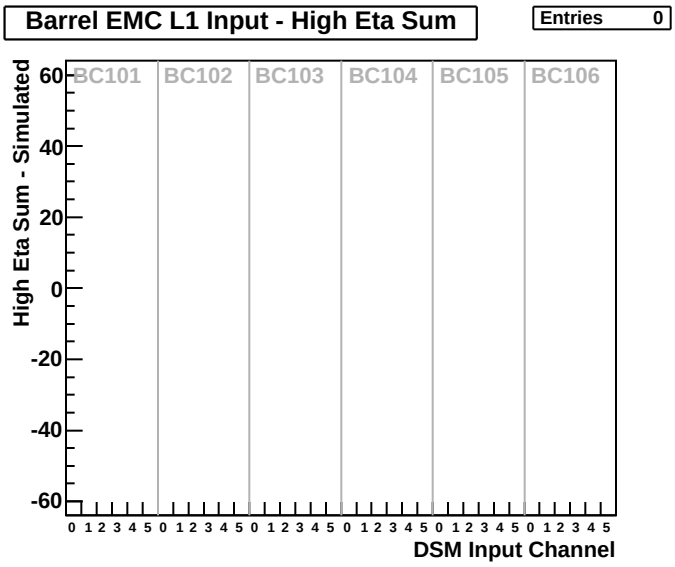
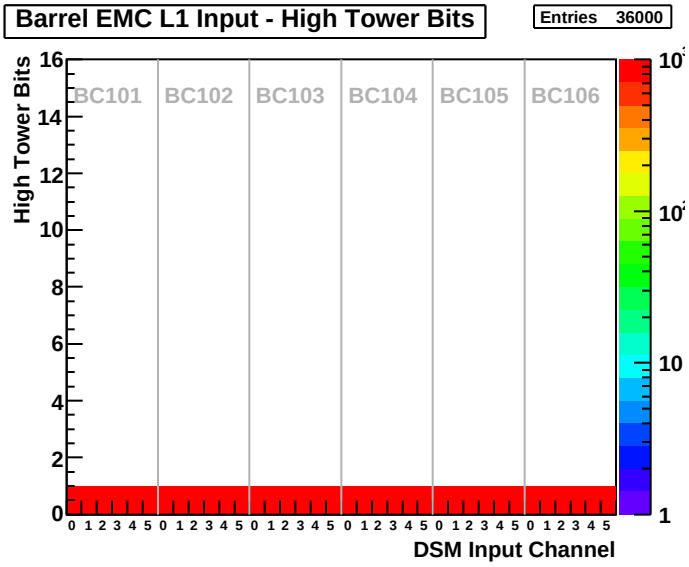
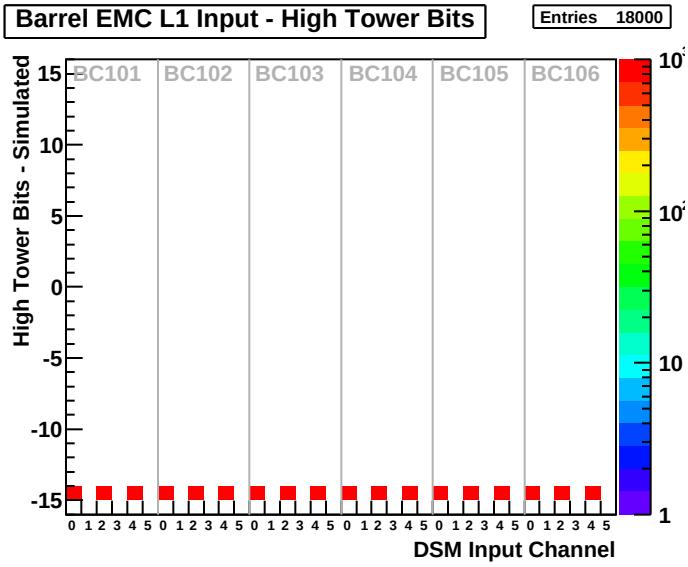

Barrel EMC L1 Input - Low Eta Sum
Entries 36000
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

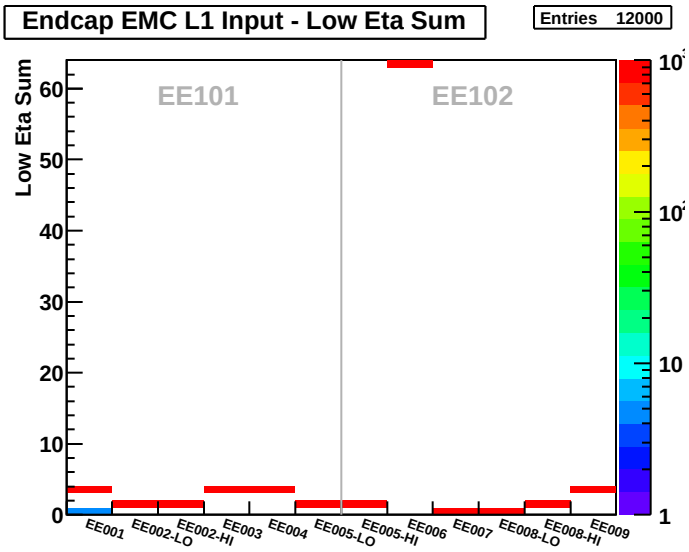

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

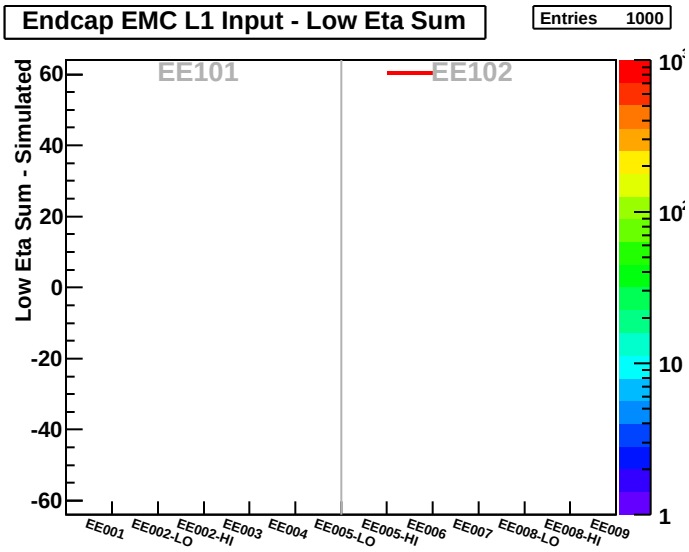

Barrel EMC L1 Input - High Eta Sum
Entries 36000
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

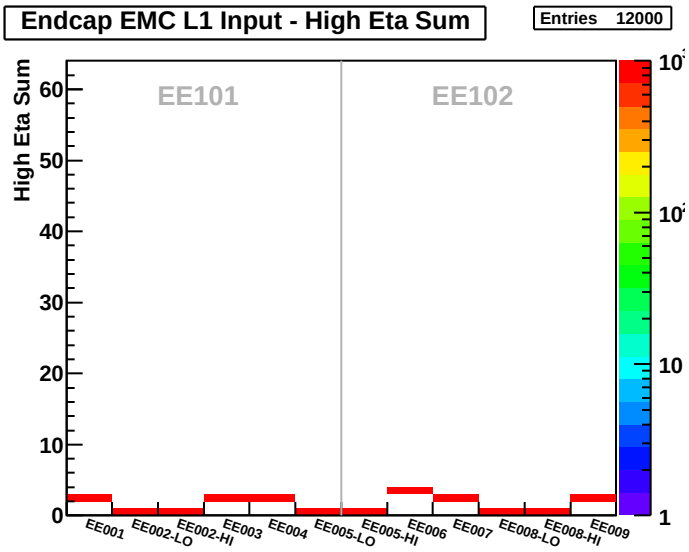

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

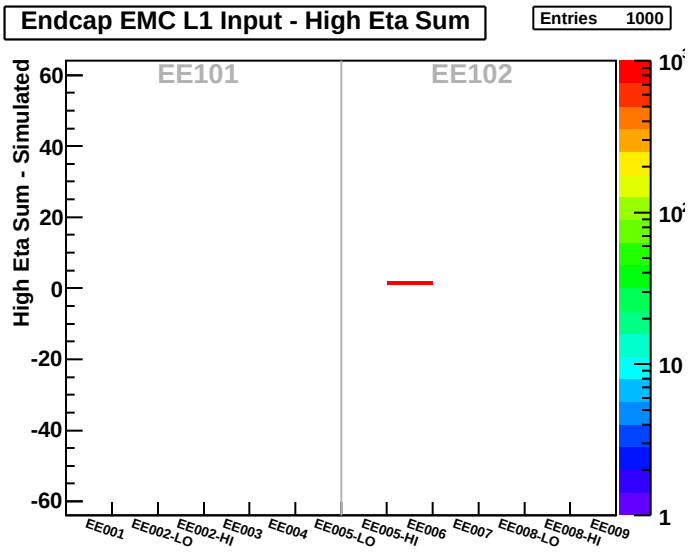

Barrel EMC L1 Input - High Tower Bits
Entries 36000
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

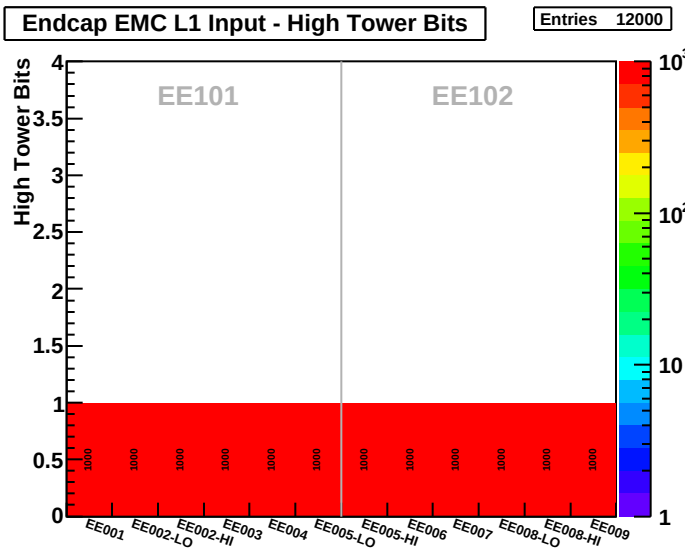

Barrel EMC L1 Input - High Tower Bits
Entries 18000
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

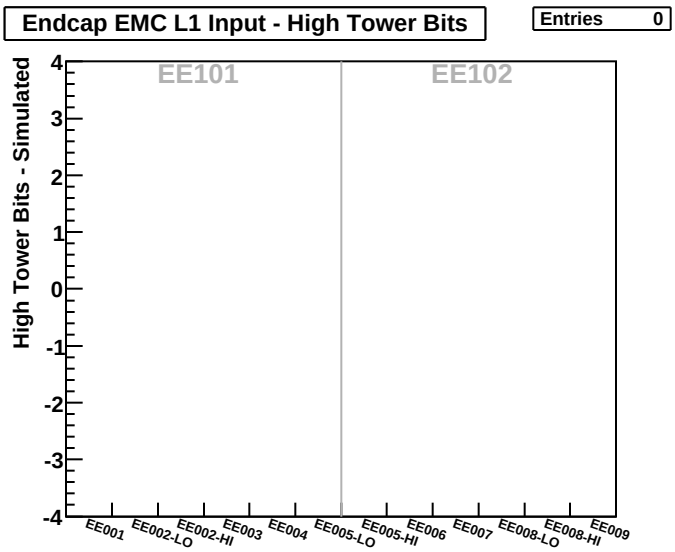

Endcap EMC L1 Input - Low Eta Sum
Entries 12000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

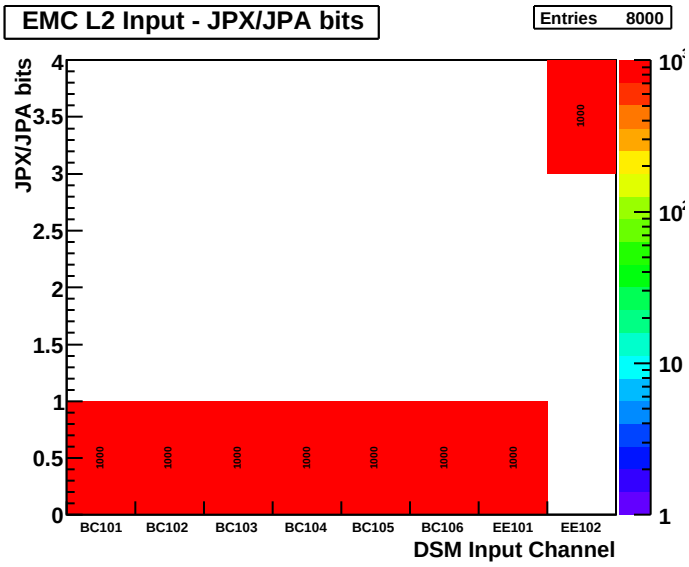

Endcap EMC L1 Input - Low Eta Sum
Entries 1000
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

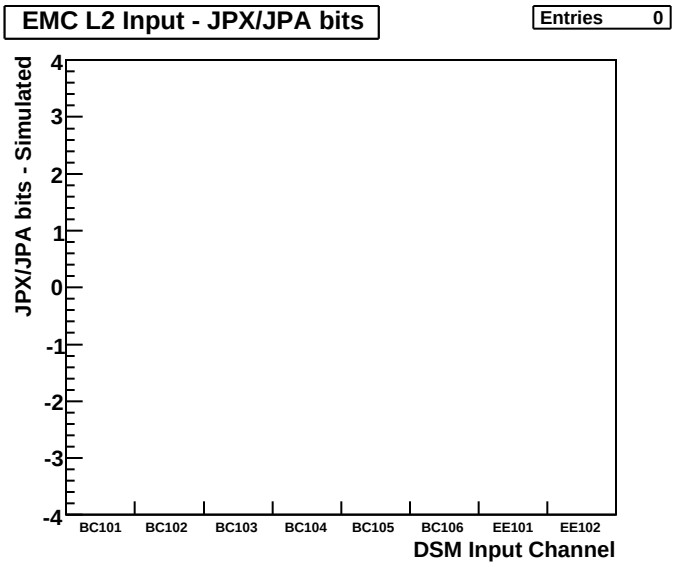

Endcap EMC L1 Input - High Eta Sum
Entries 12000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

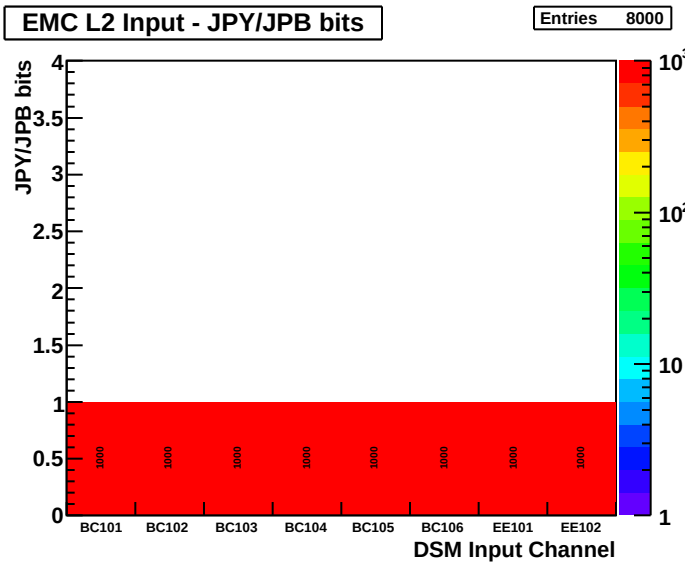

Endcap EMC L1 Input - High Eta Sum
Entries 1000
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

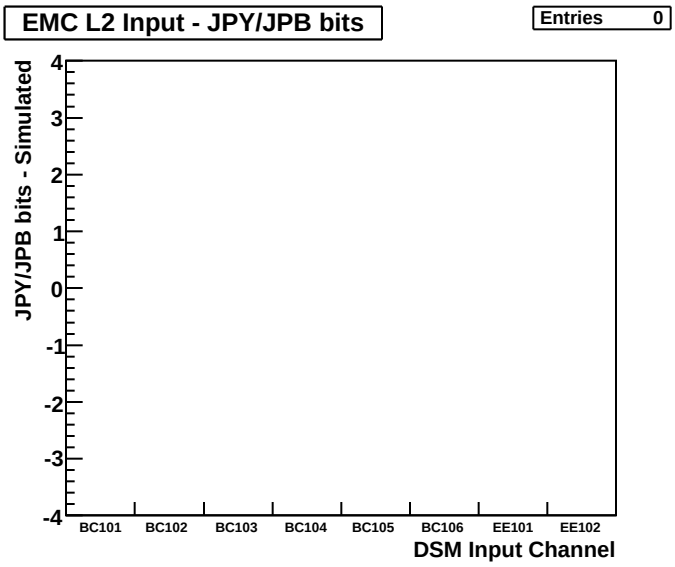

Endcap EMC L1 Input - High Tower Bits
Entries 12000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

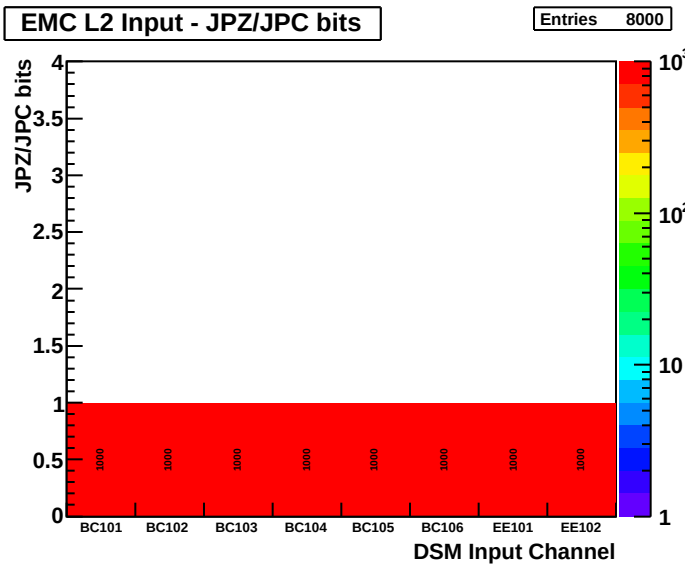

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

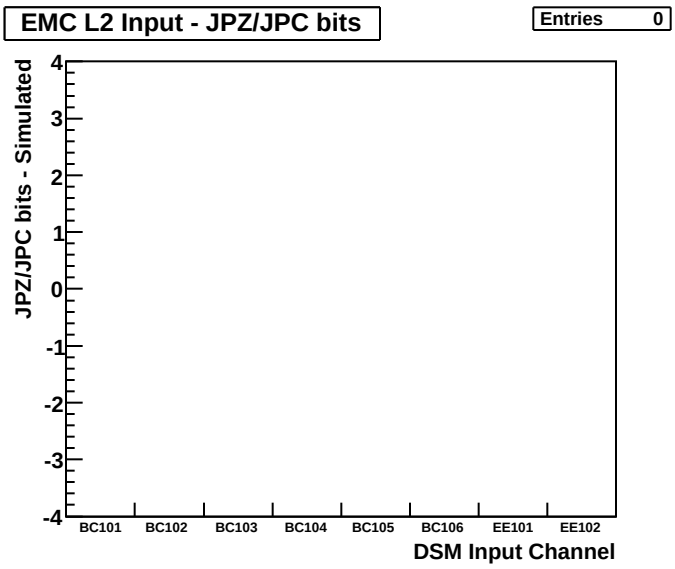

EMC L2 Input - JPX/JPA bits
Entries 8000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

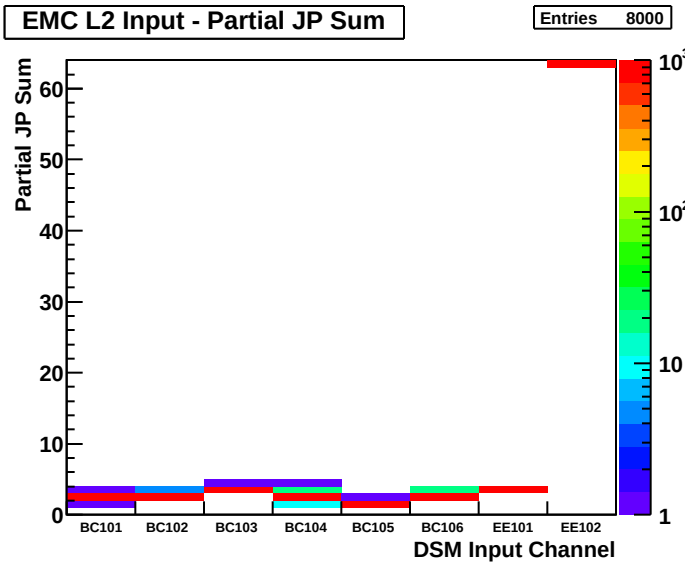

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

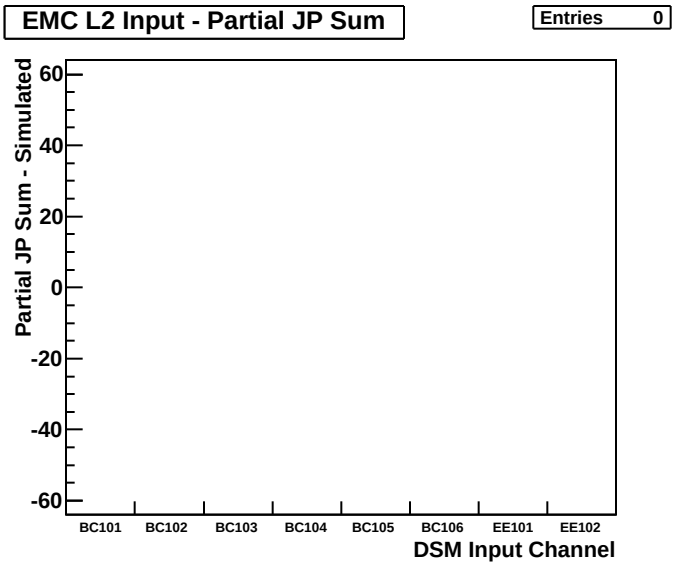

EMC L2 Input - JPY/JPB bits
Entries 8000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

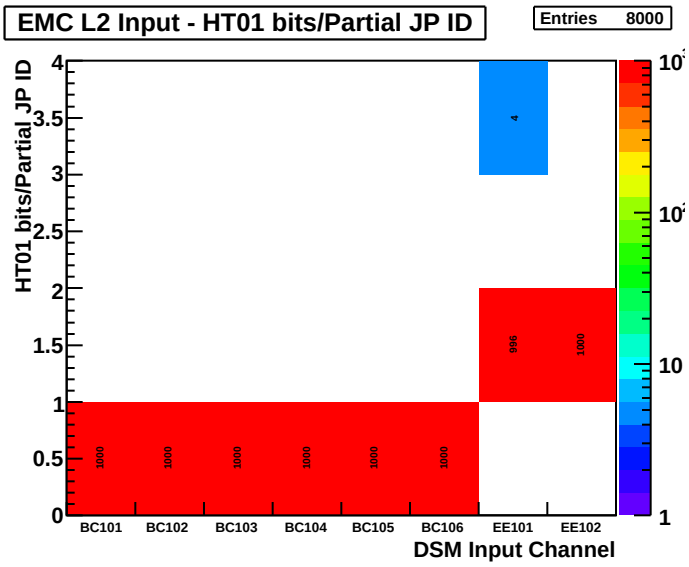

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

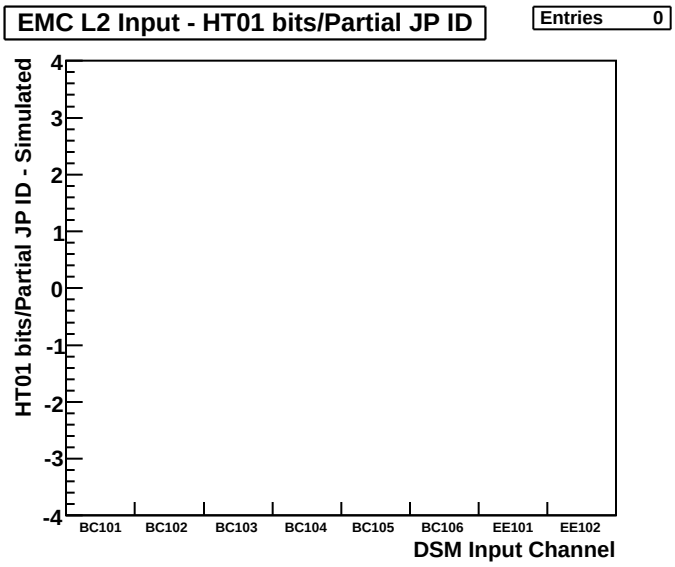

EMC L2 Input - JPZ/JPC bits
Entries 8000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

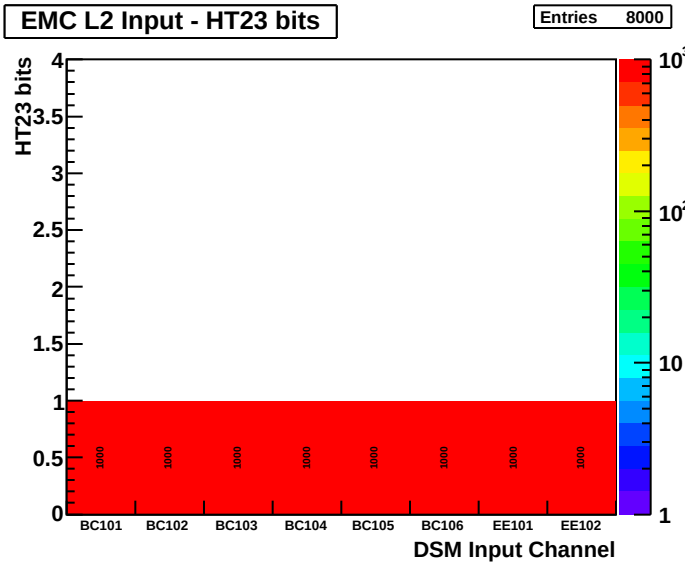

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

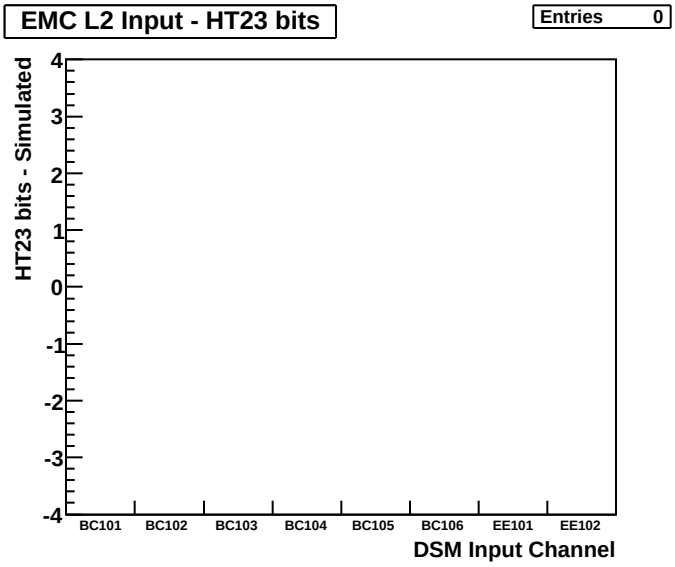

EMC L2 Input - Partial JP Sum
Entries 8000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

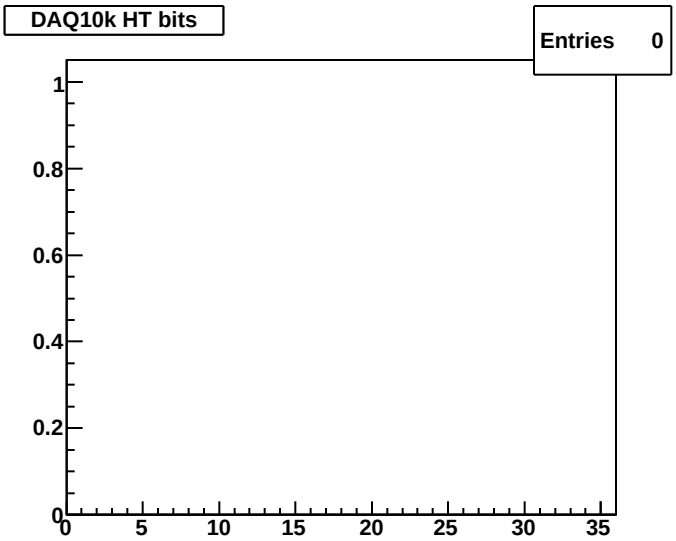

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

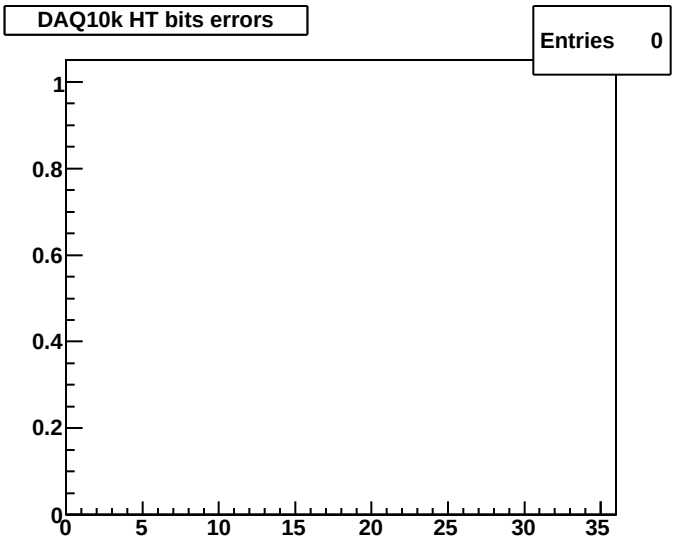

EMC L2 Input - HT01 bits/Partial JP ID
Entries 8000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

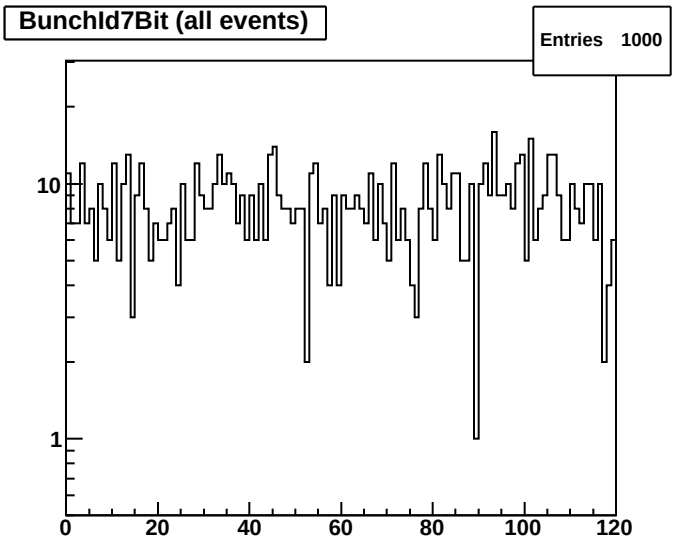

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

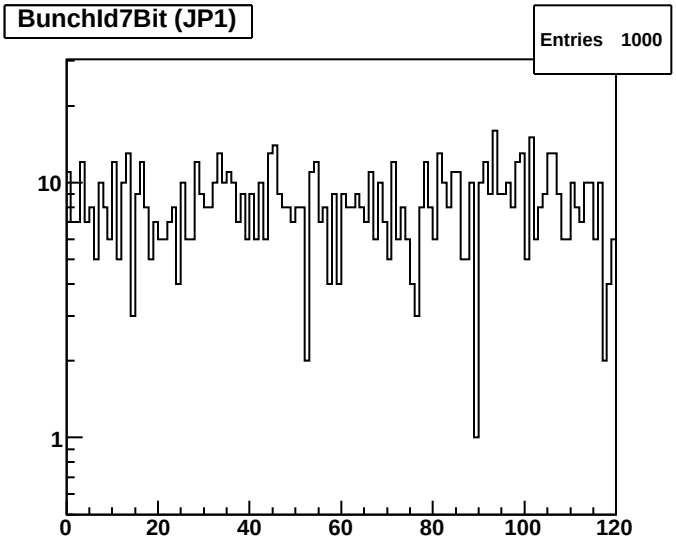

EMC L2 Input - HT23 bits
Entries 8000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

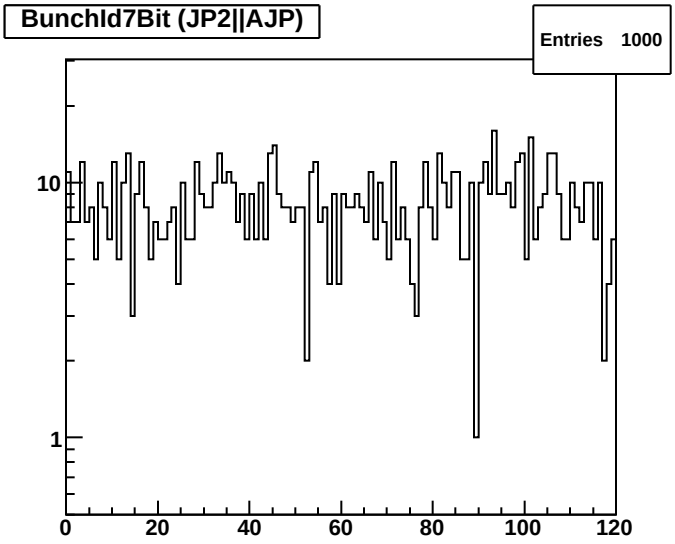

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

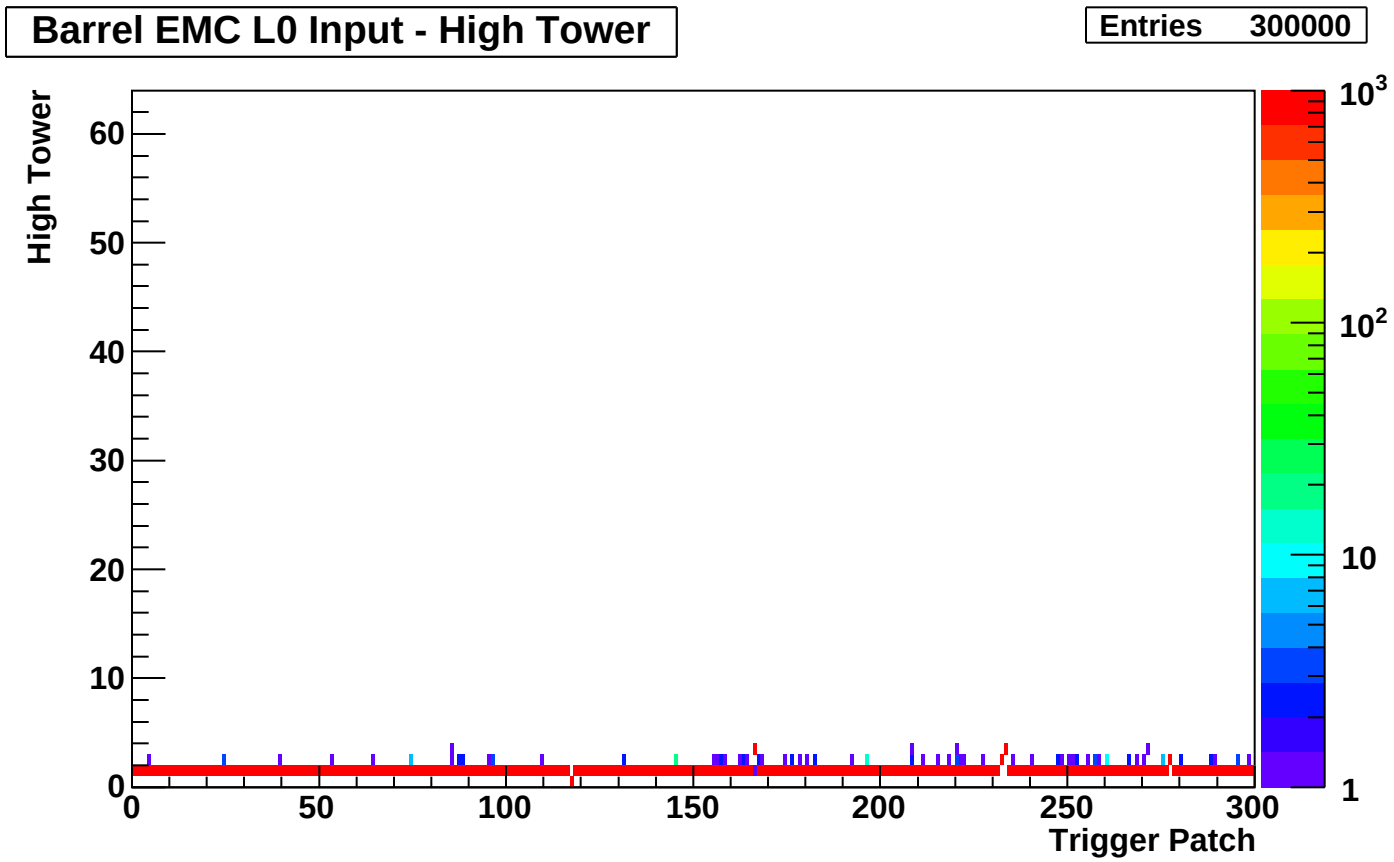

DAQ10k HT bits
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

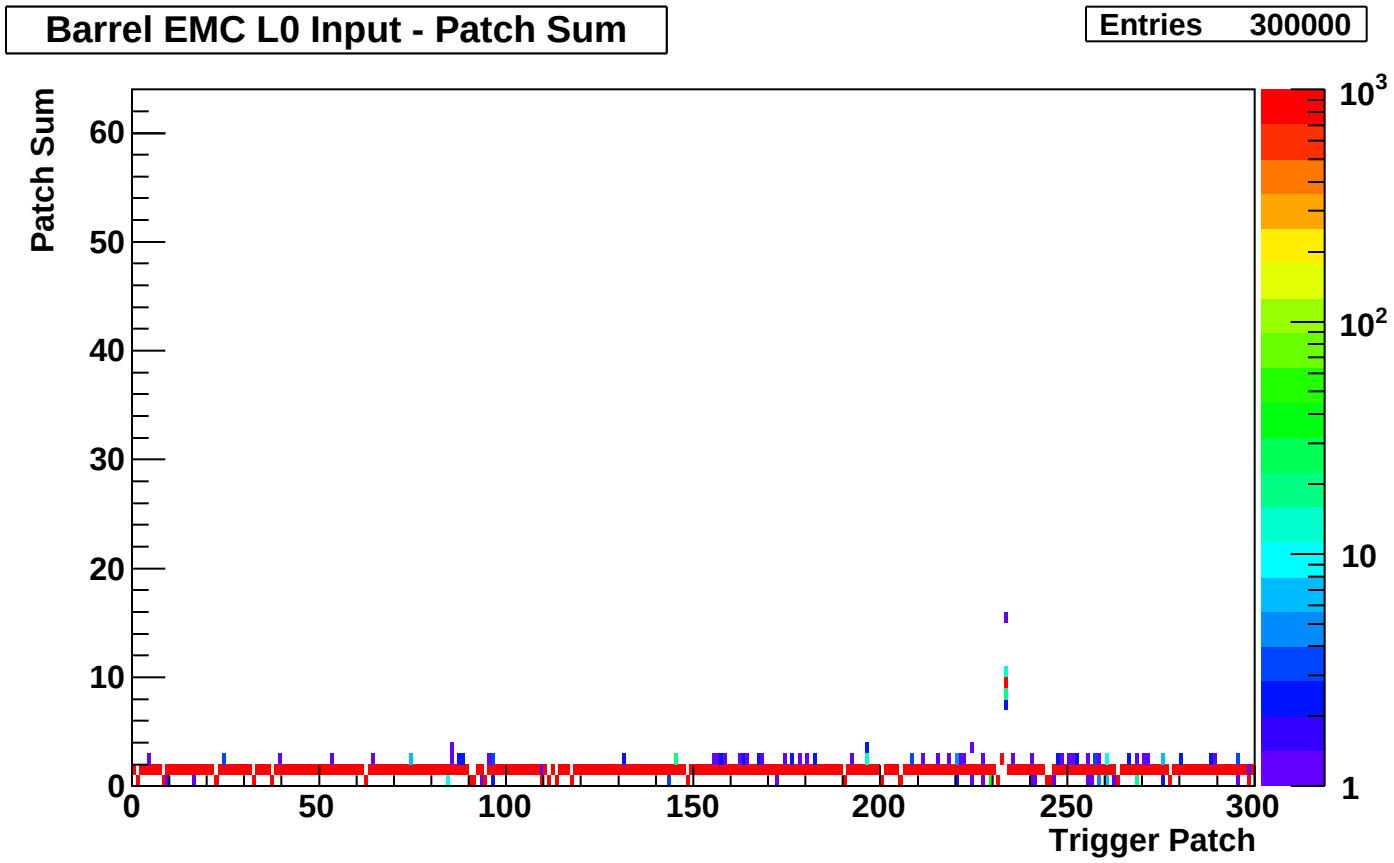

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

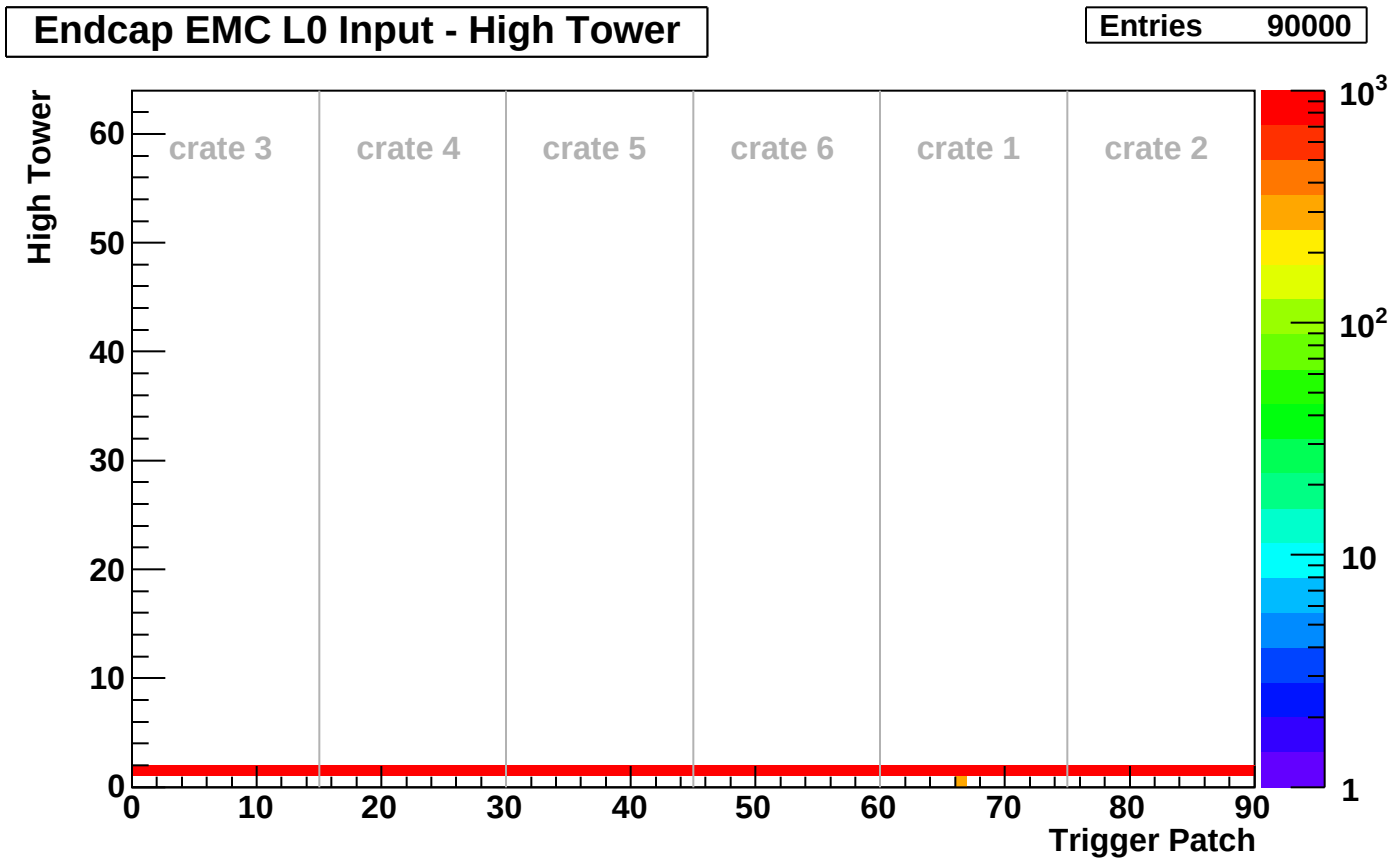

BunchId7Bit (all events)
Entries 1000
10
1
0 20 40 60 80 100 120

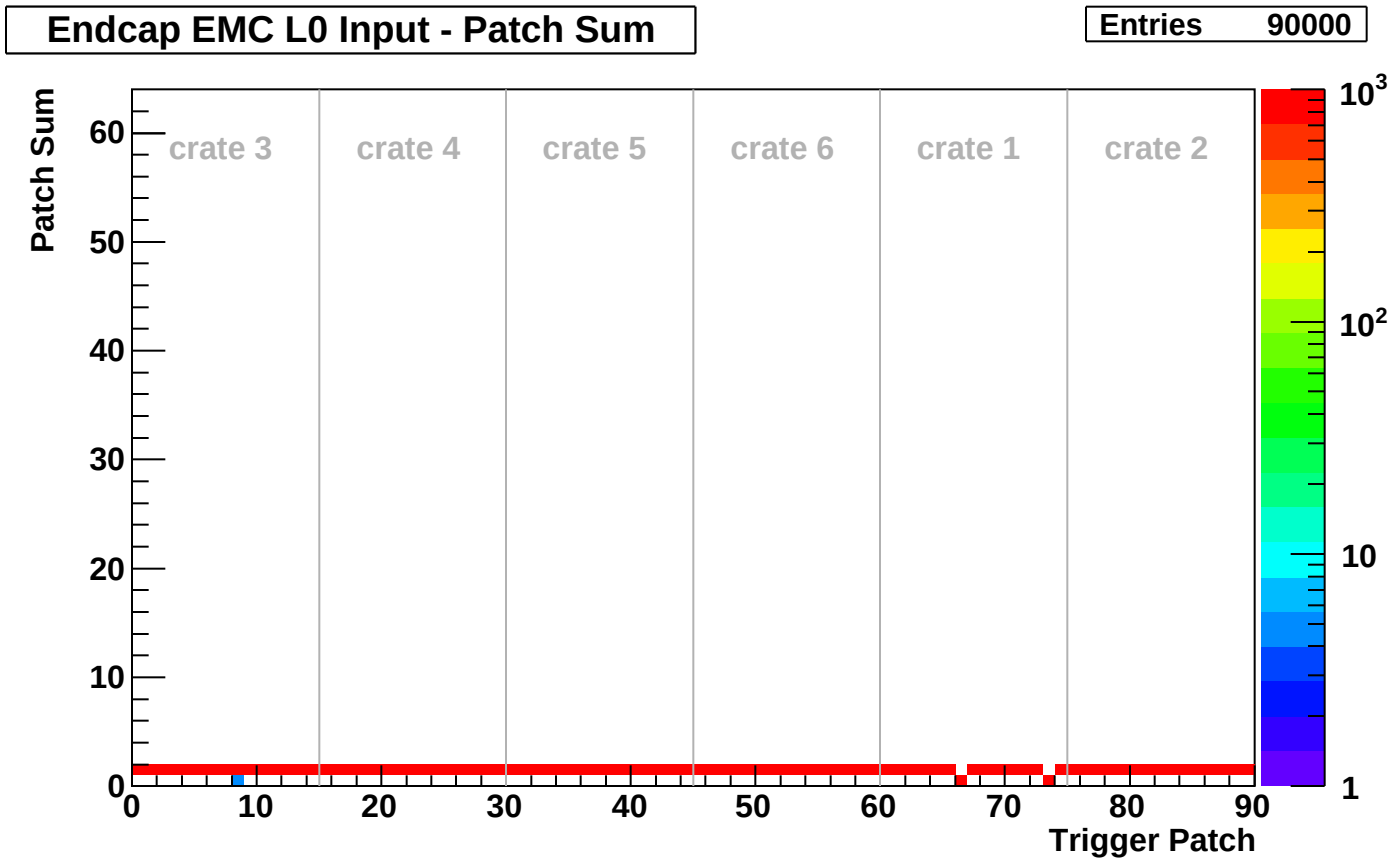

BunchId7Bit (JP1)
Entries 1000
10
1
0 20 40 60 80 100 120

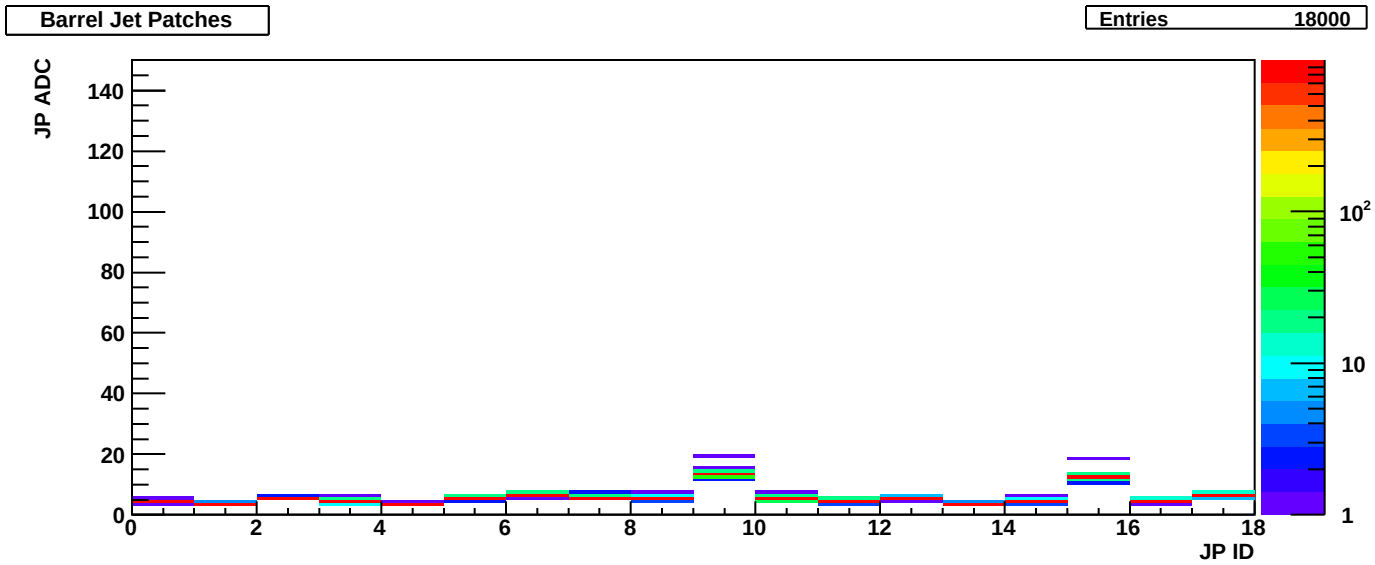

BunchId7Bit (JP2||AJP)
Entries 1000
10
1
0 20 40 60 80 100 120

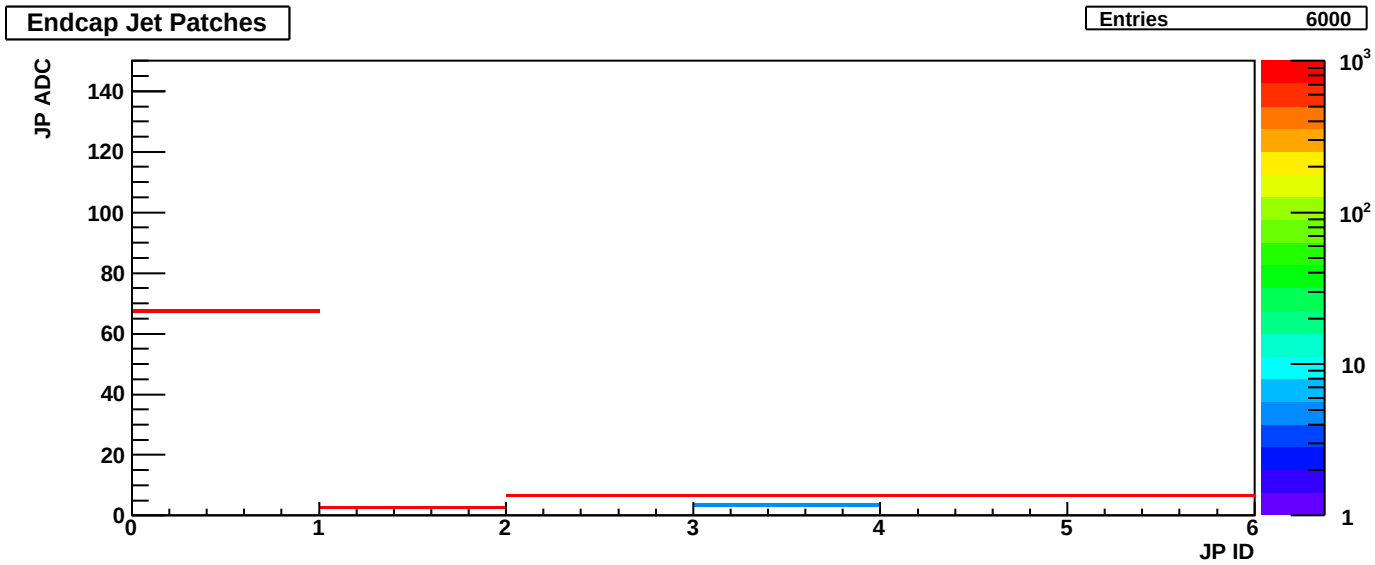

Barrel EMC L0 Input - High Tower
Entries 300000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

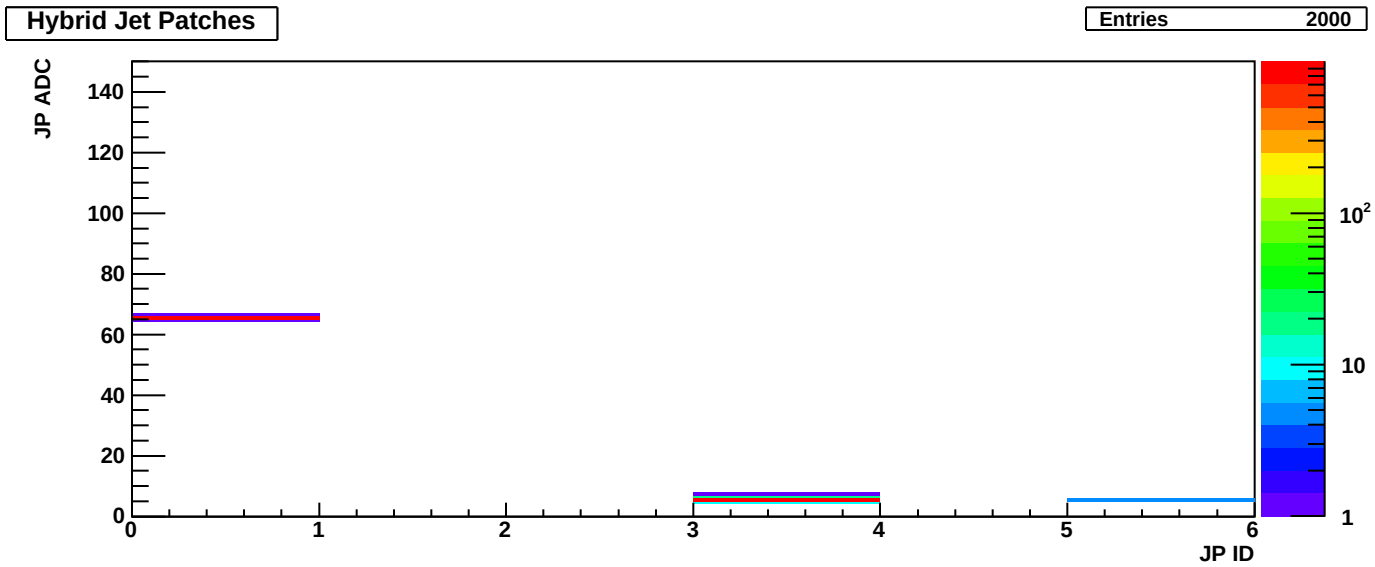

Barrel EMC L0 Input - Patch Sum
Entries 300000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

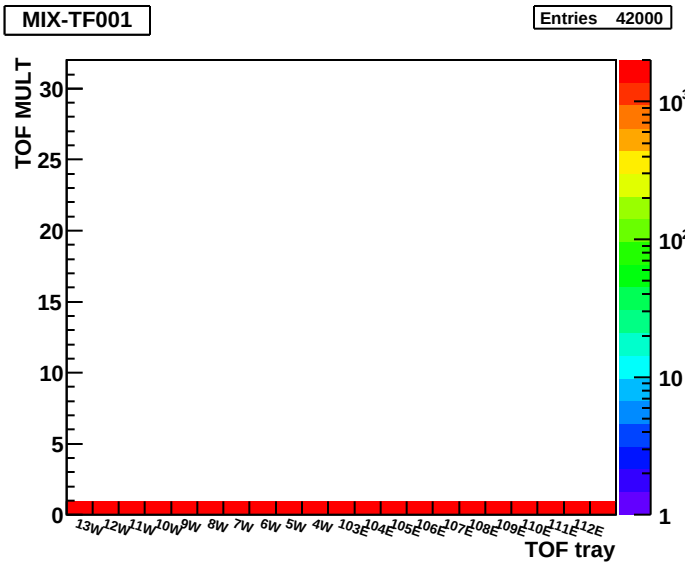

Endcap EMC L0 Input - High Tower
Entries 90000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

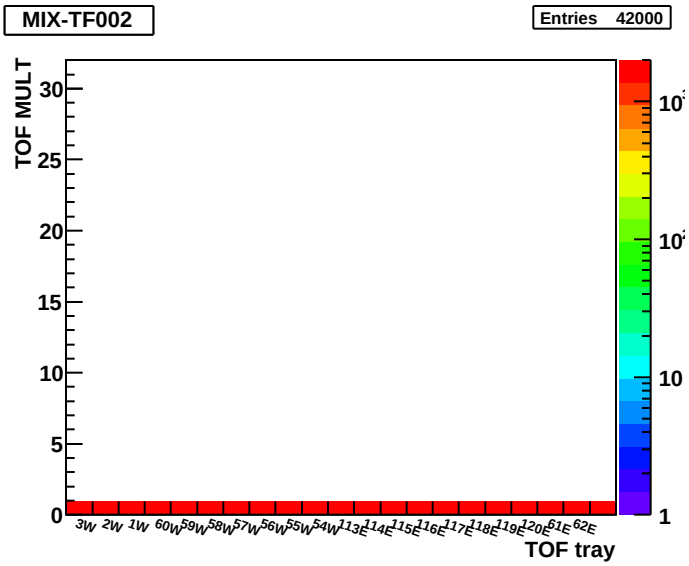

Endcap EMC L0 Input - Patch Sum
Entries 90000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

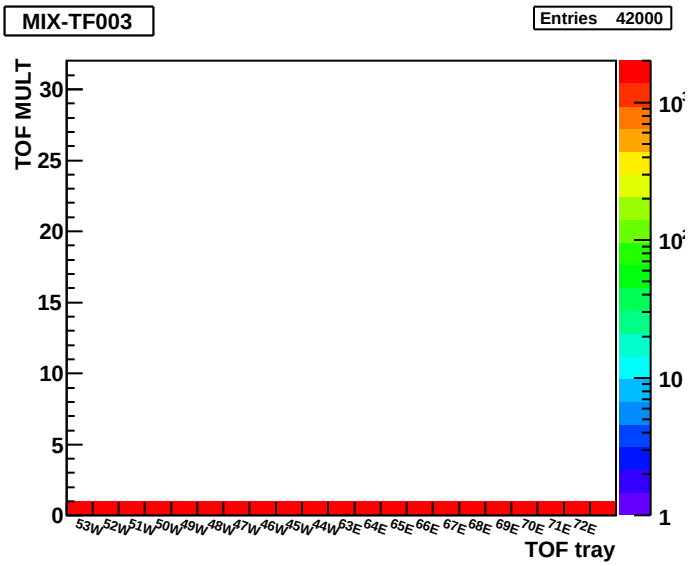

Barrel Jet Patches
Entries 18000
JP ADC
JP ID

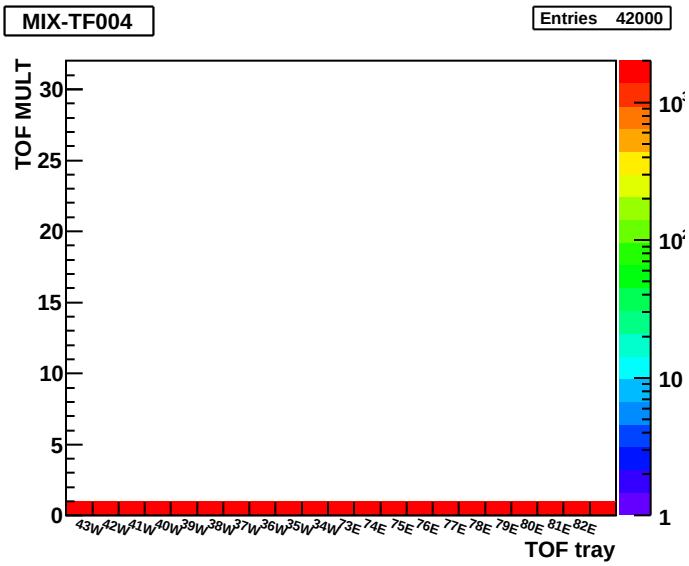

Endcap Jet Patches
Entries 6000
JP ADC
JP ID

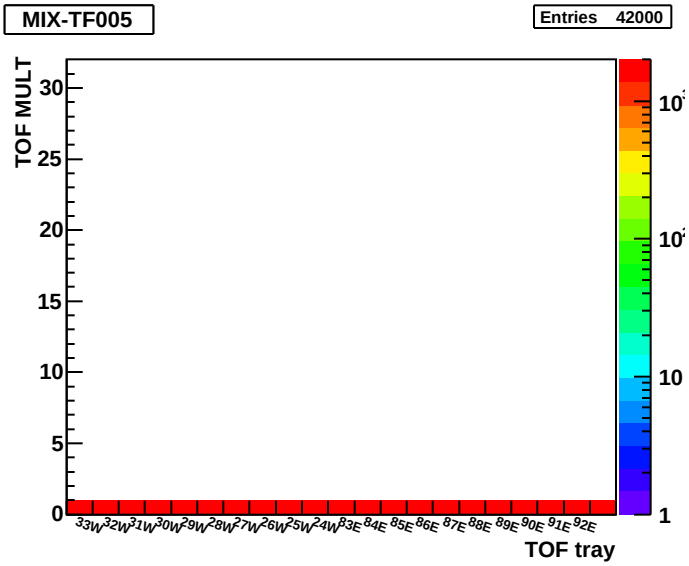

Hybrid Jet Patches
Entries 2000
JP ADC
JP ID

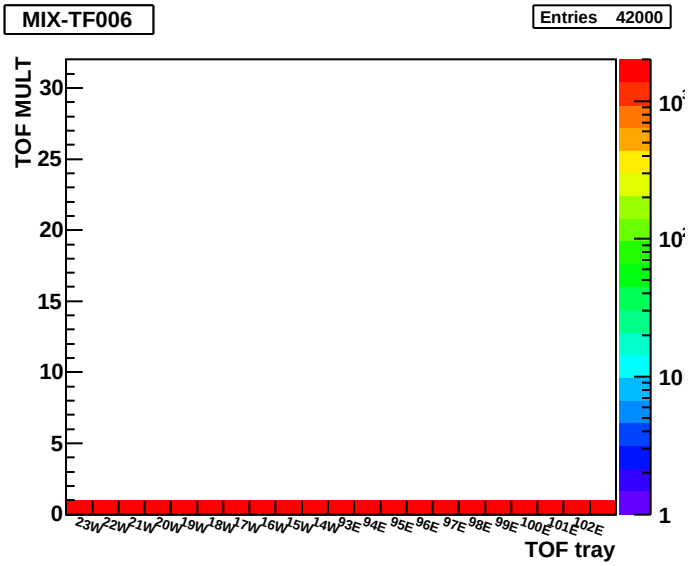

MIX-TF001
Entries 42000
TOF MULT
TOF tray

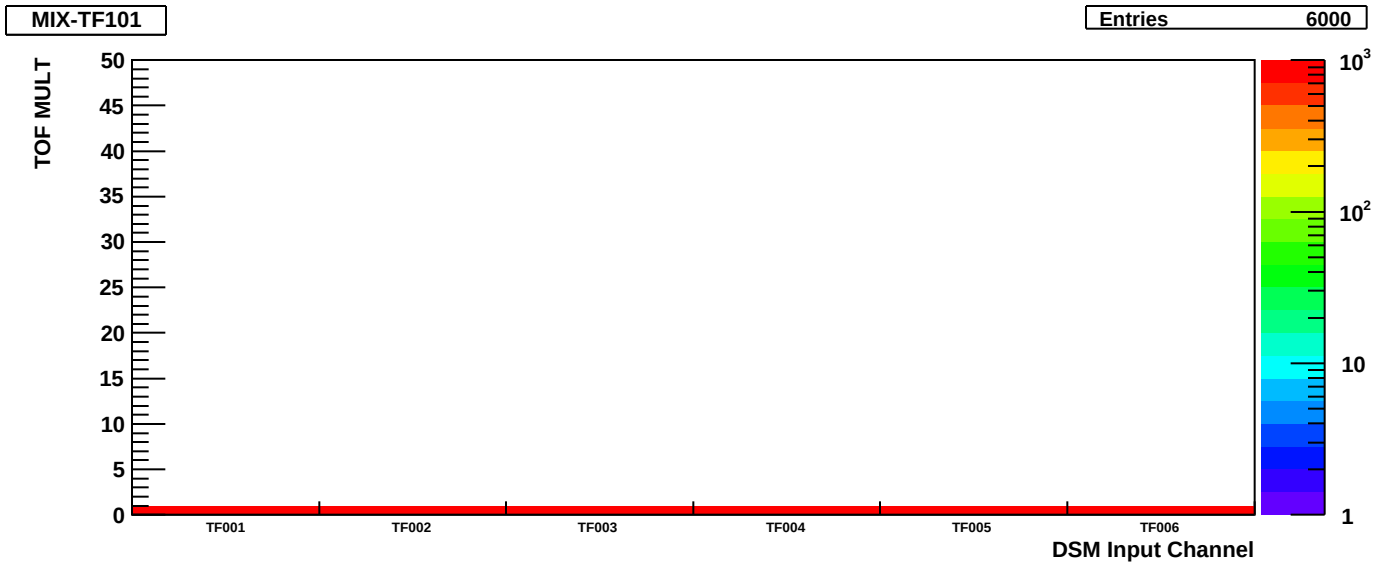

MIX-TF002
Entries 42000
TOF MULT
TOF tray

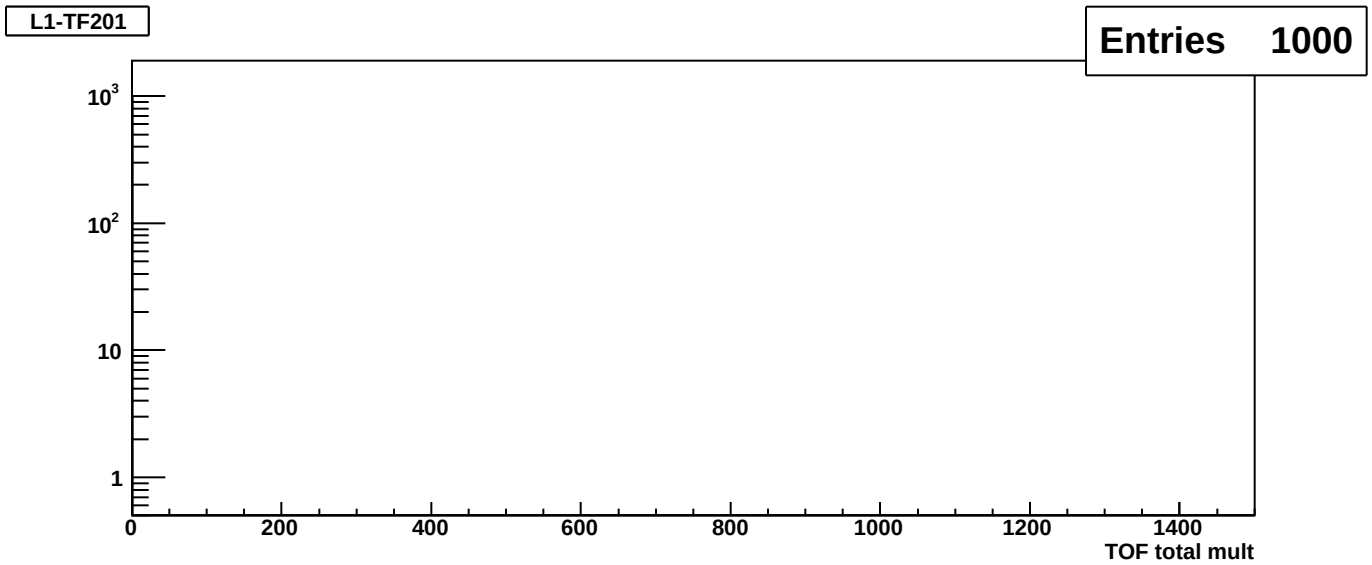

MIX-TF003
Entries 42000
TOF MULT
TOF tray

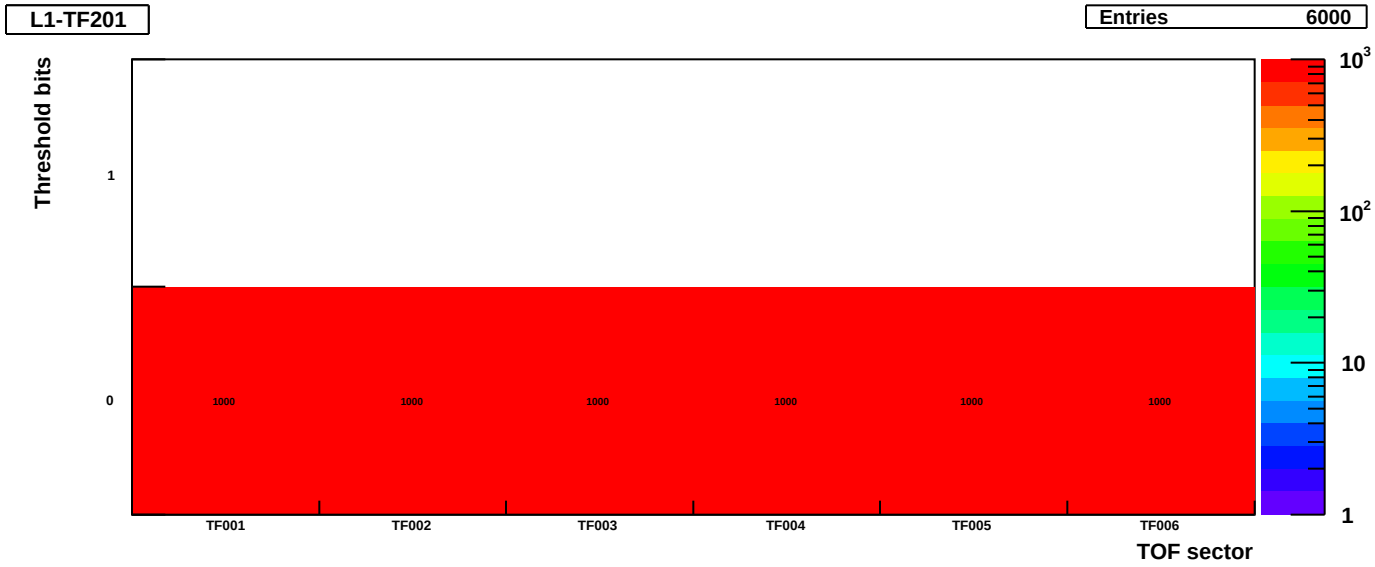

MIX-TF004
Entries 42000
TOF MULT
TOF tray

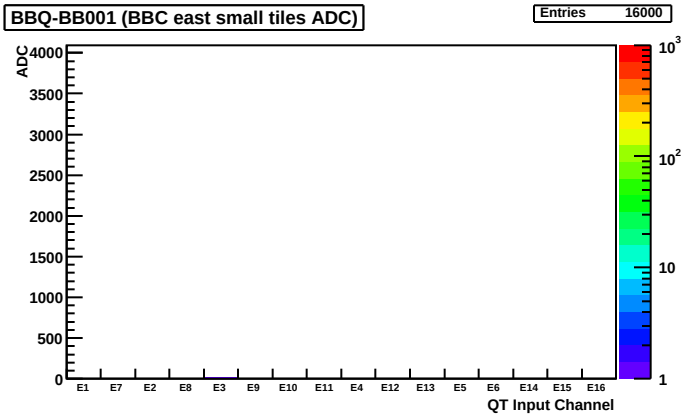

MIX-TF005
Entries 42000
TOF MULT
TOF tray

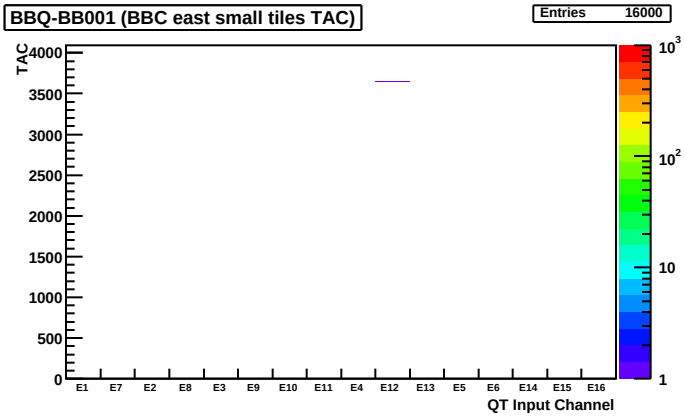

MIX-TF006
Entries 42000
TOF MULT
TOF tray

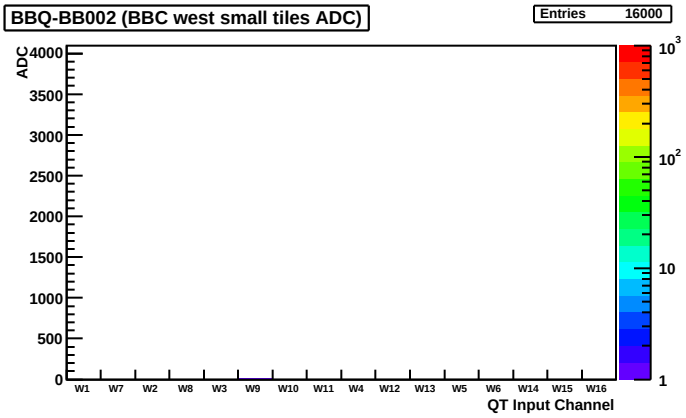

MIX-TF101
Entries 6000
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

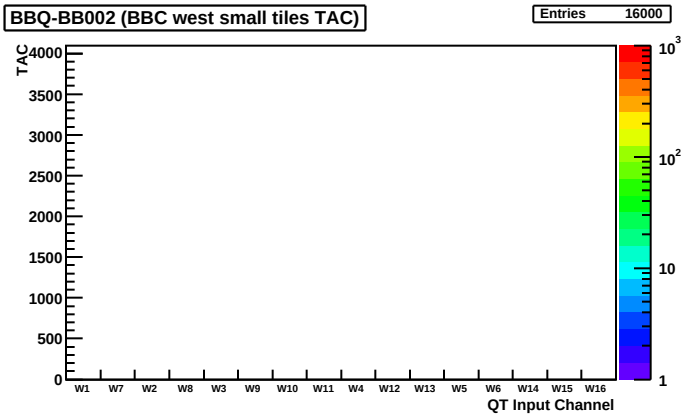

L1-TF201
Entries 1000
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
TOF total mult

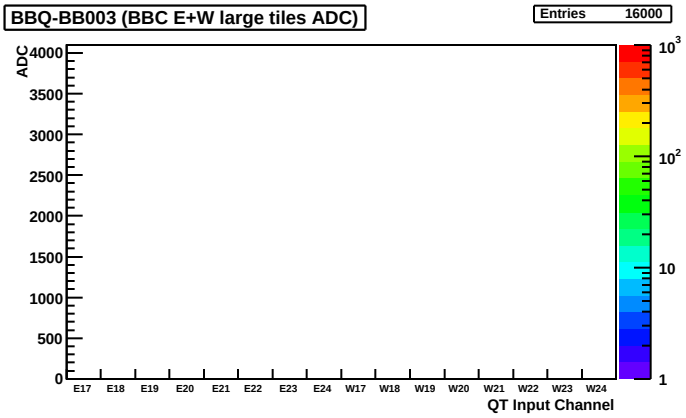

L1-TF201
Entries 6000
Threshold bits
1
0
1000
1000
1000
1000
1000
1000
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3
10^2
10
1

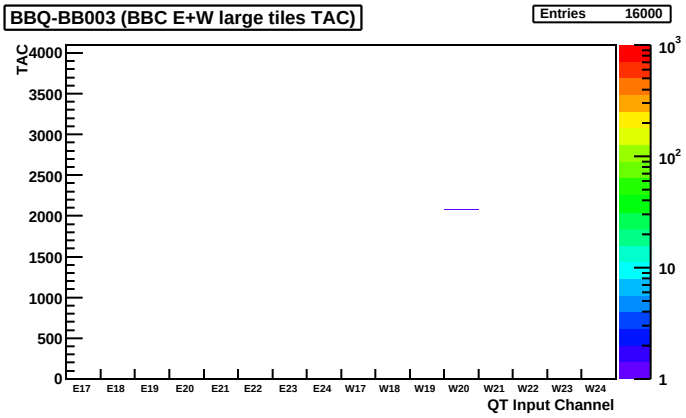

BBQ-BB001 (BBC east small tiles ADC)
Entries 16000
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

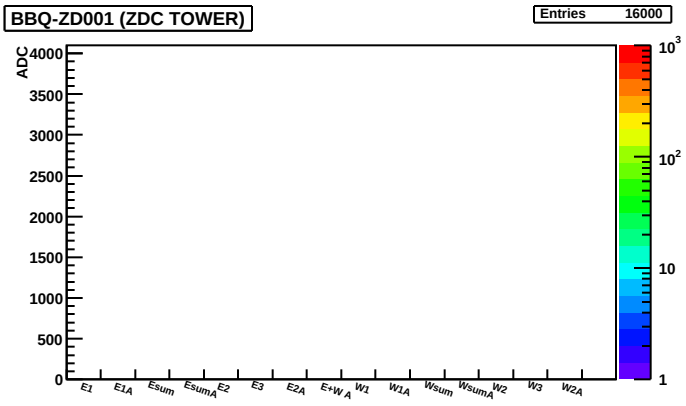

BBQ-BB001 (BBC east small tiles TAC)
Entries 16000
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

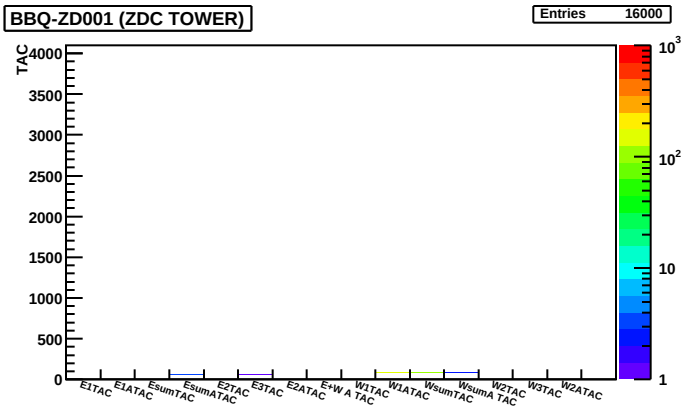

BBQ-BB002 (BBC west small tiles ADC)
Entries 16000
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

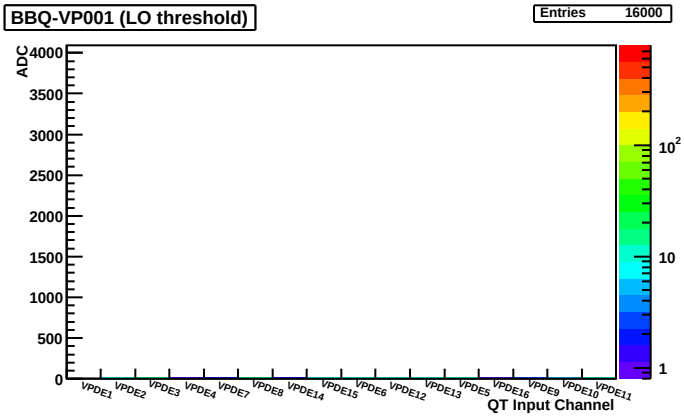

BBQ-BB002 (BBC west small tiles TAC)
Entries 16000
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

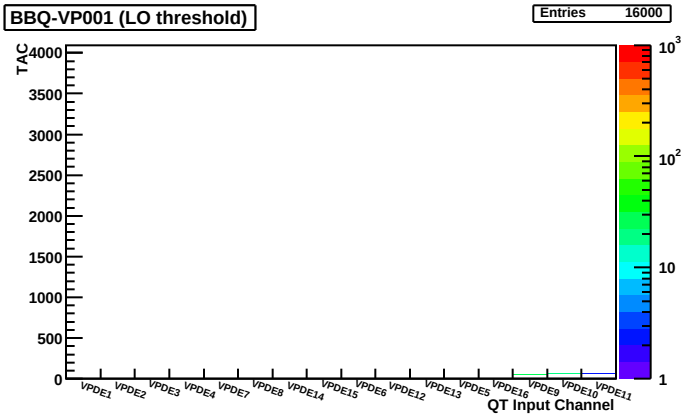

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 16000
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

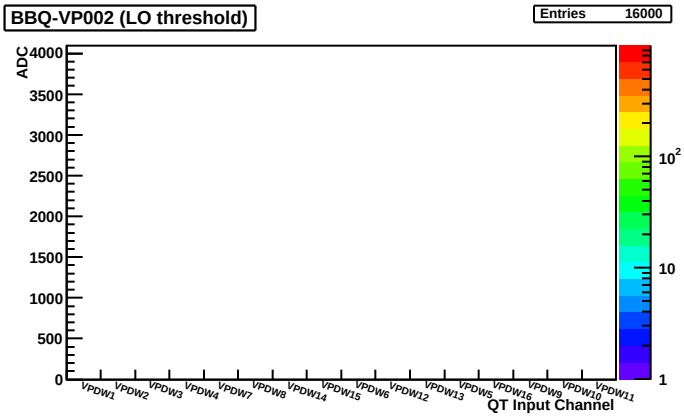

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 16000
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

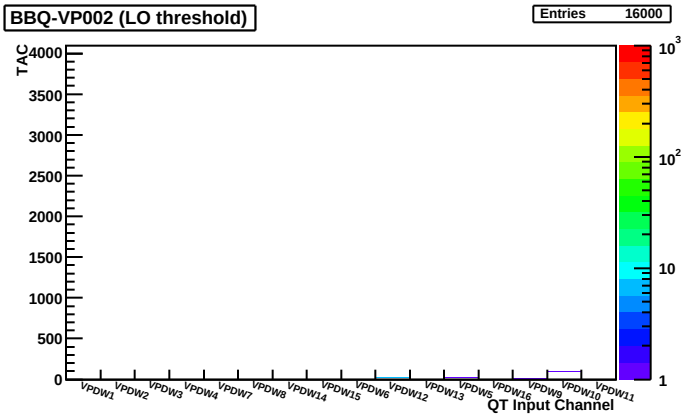

BBQ-ZD001 (ZDC TOWER)
Entries 16000
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

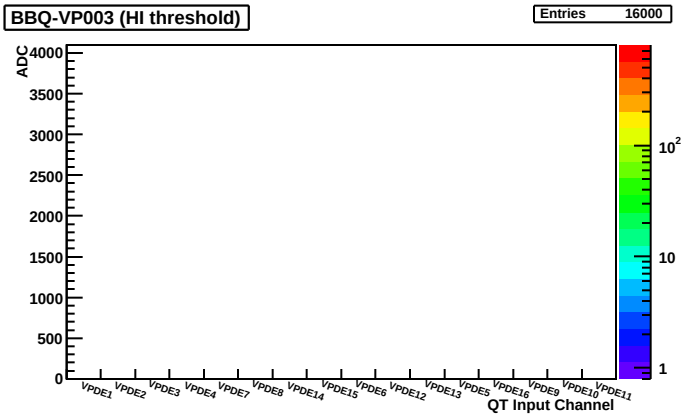

BBQ-ZD001 (ZDC TOWER)
Entries 16000
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

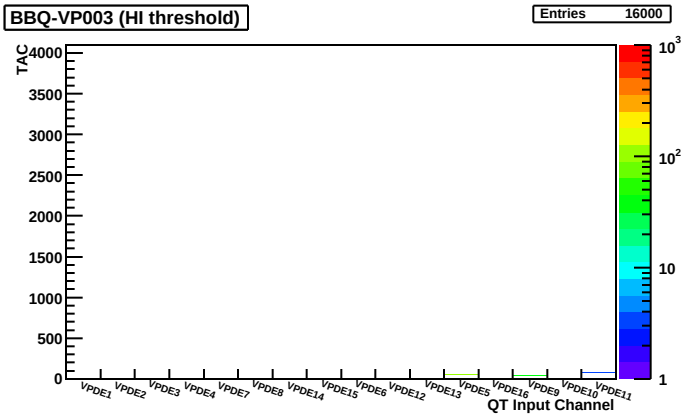

BBQ-VP001 (LO threshold)
Entries 16000
ADC
QT Input Channel

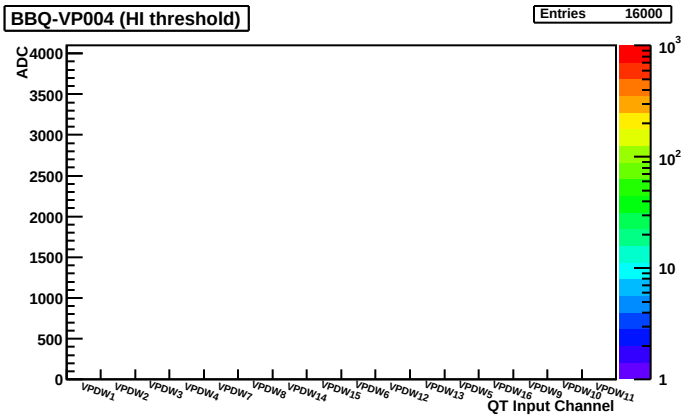

BBQ-VP001 (LO threshold)
Entries 16000
TAC
QT Input Channel

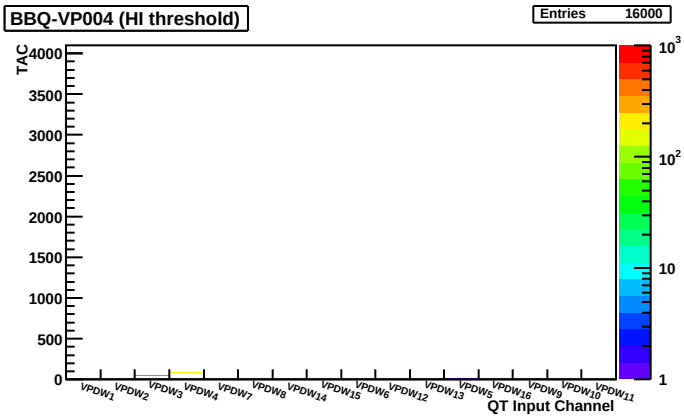

BBQ-VP002 (LO threshold)
Entries 16000
ADC
QT Input Channel

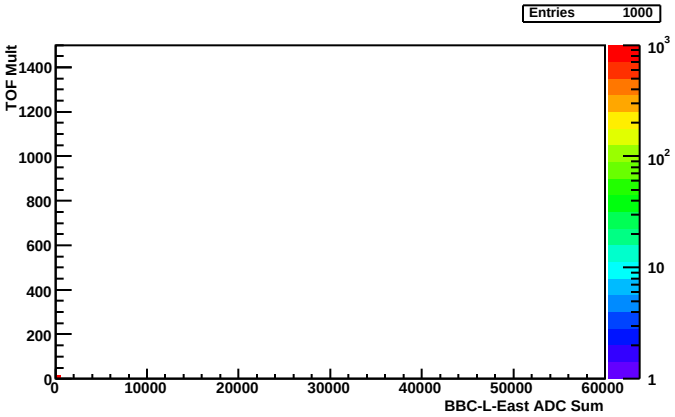

BBQ-VP002 (LO threshold)
Entries 16000
TAC
QT Input Channel

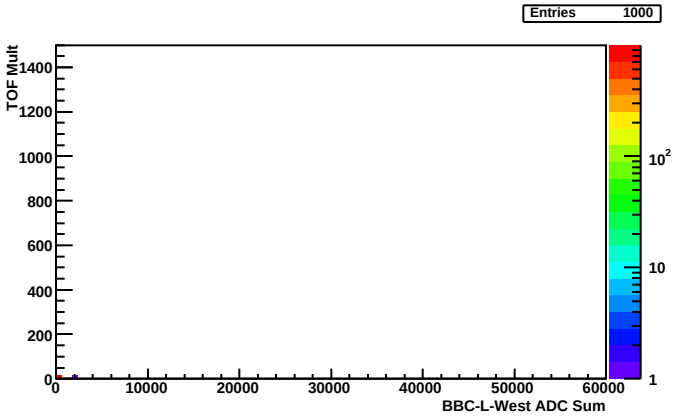

BBQ-VP003 (HI threshold)
Entries 16000
ADC
QT Input Channel

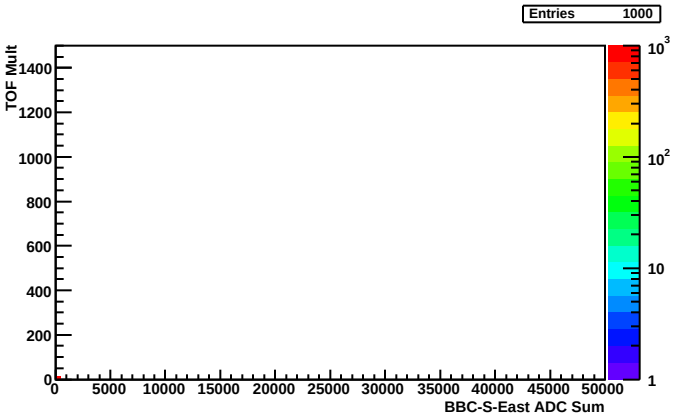

BBQ-VP003 (HI threshold)
Entries 16000
TAC
QT Input Channel

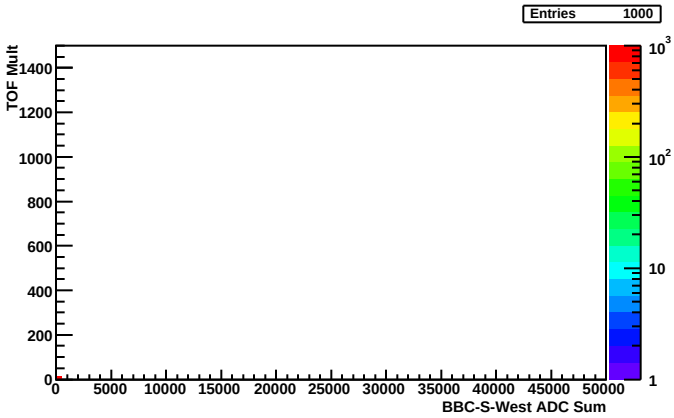

BBQ-VP004 (HI threshold)
Entries 16000
ADC
QT Input Channel

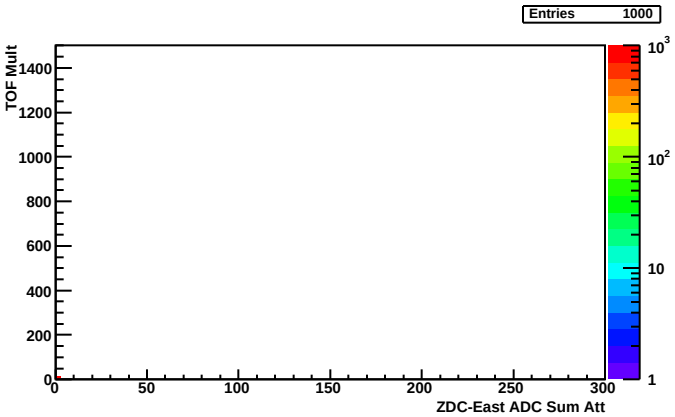

BBQ-VP004 (HI threshold)
Entries 16000
TAC
QT Input Channel

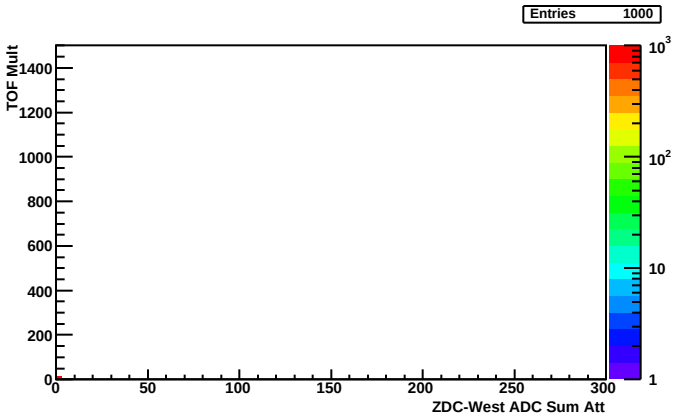

Entries 1000
TOF Mult
BBC-L-East ADC Sum

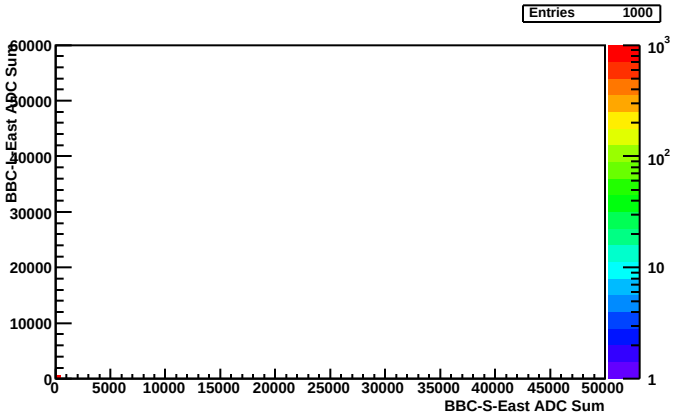

Entries 1000
TOF Mult
BBC-L-West ADC Sum

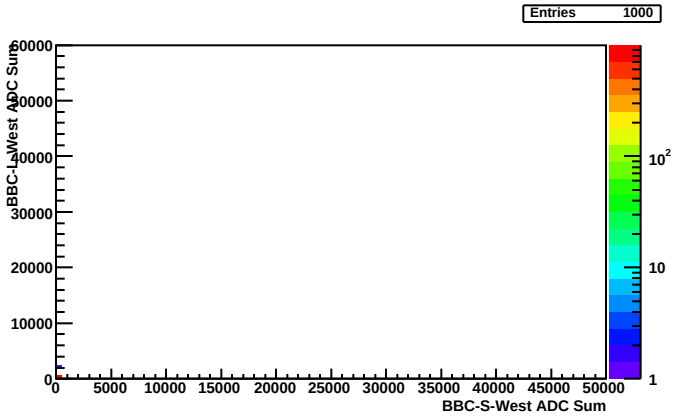

Entries 1000
TOF Mult
BBC-S-East ADC Sum

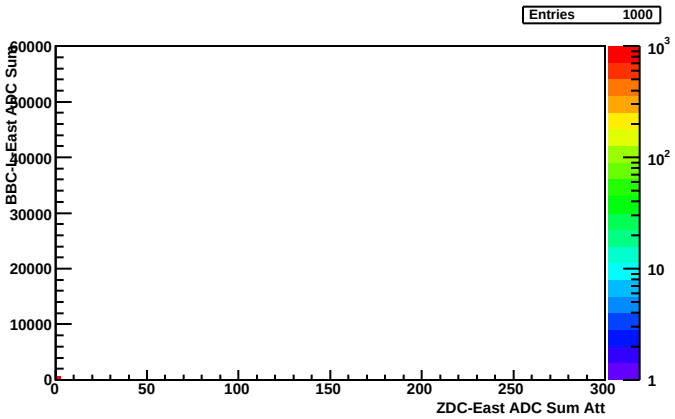

Entries 1000
TOF Mult
BBC-S-West ADC Sum

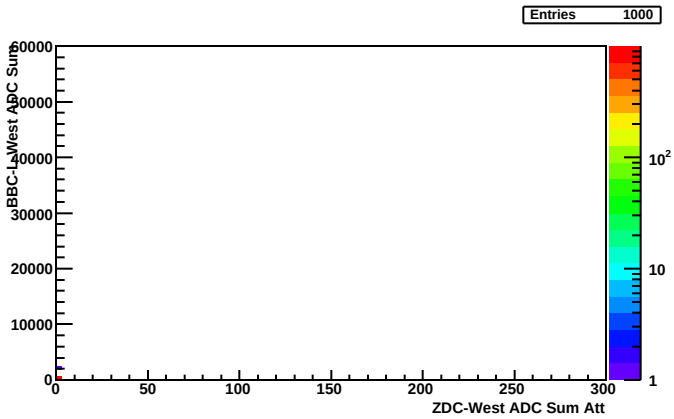

Entries 1000
TOF Mult
ZDC-East ADC Sum Att

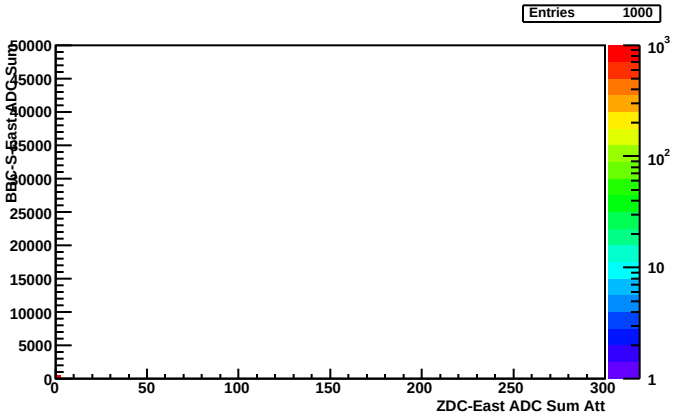

Entries 1000
TOF Mult
ZDC-West ADC Sum Att

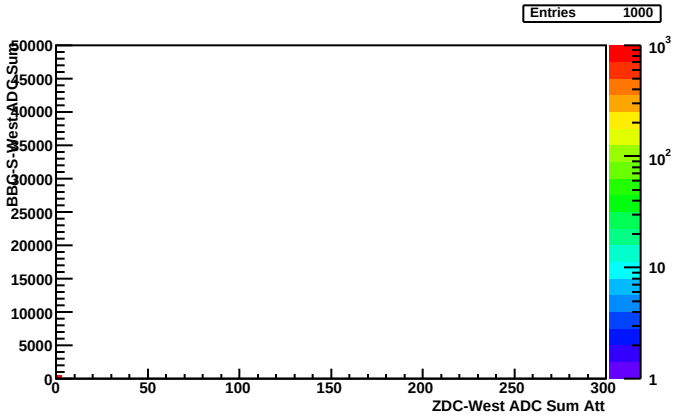

Entries 1000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

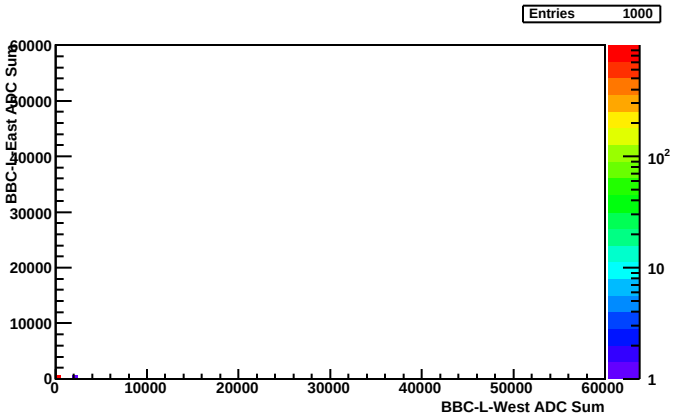

Entries 1000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

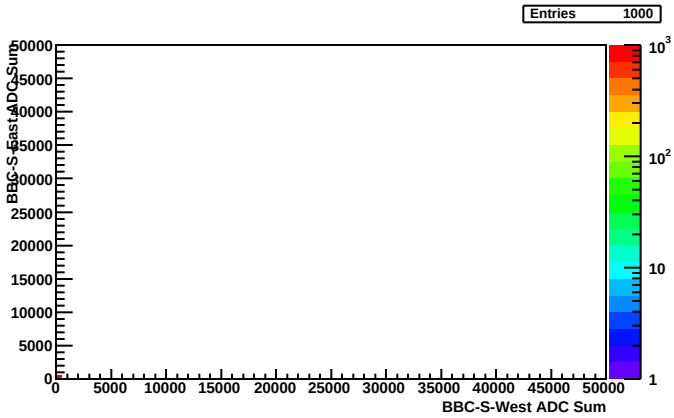

Entries 1000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

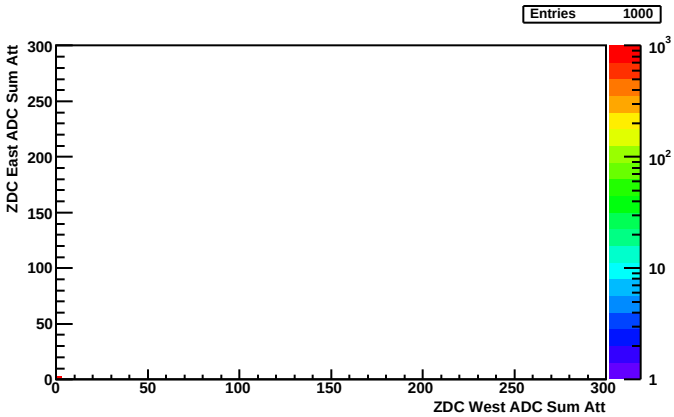

Entries 1000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

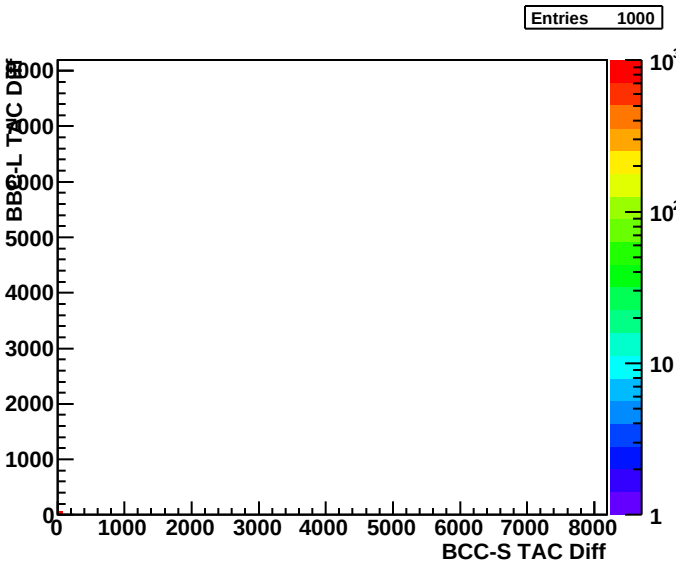

Entries 1000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

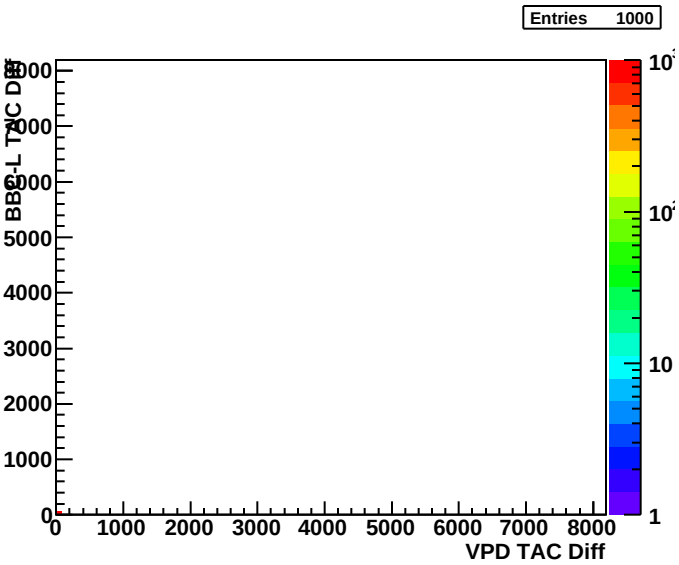

Entries 1000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

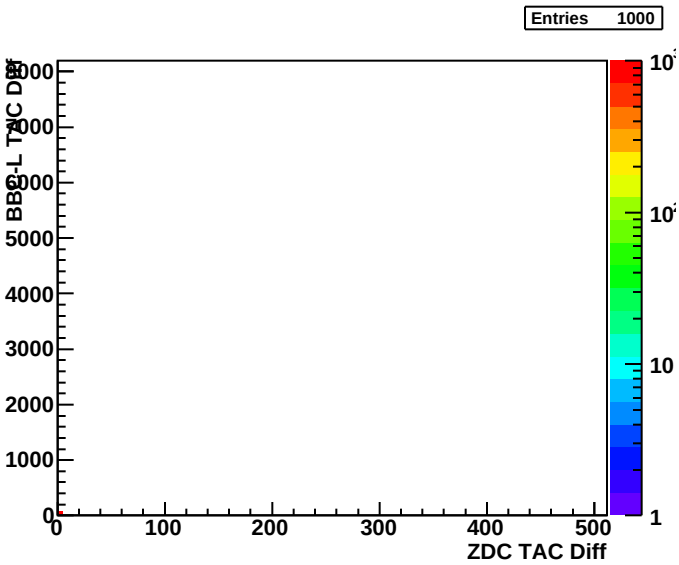

Entries 1000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

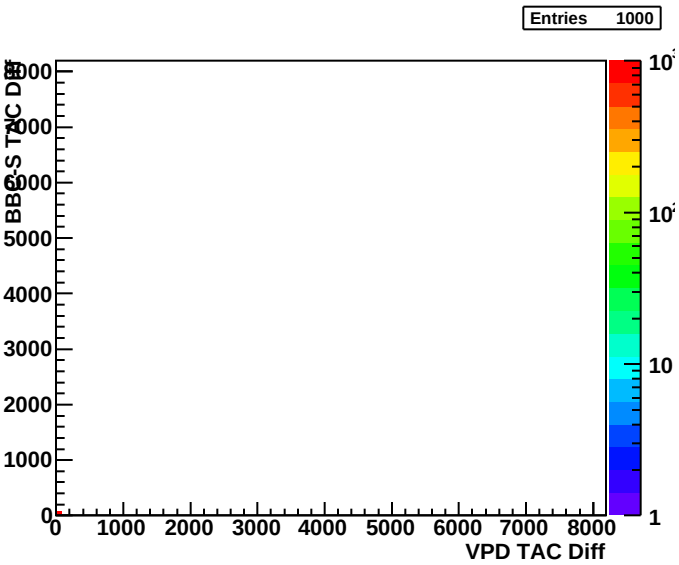

Entries 1000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

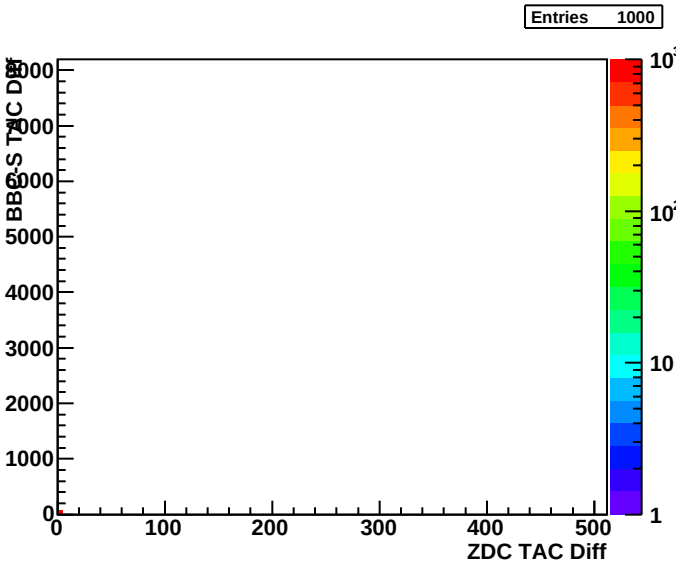

Entries 1000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

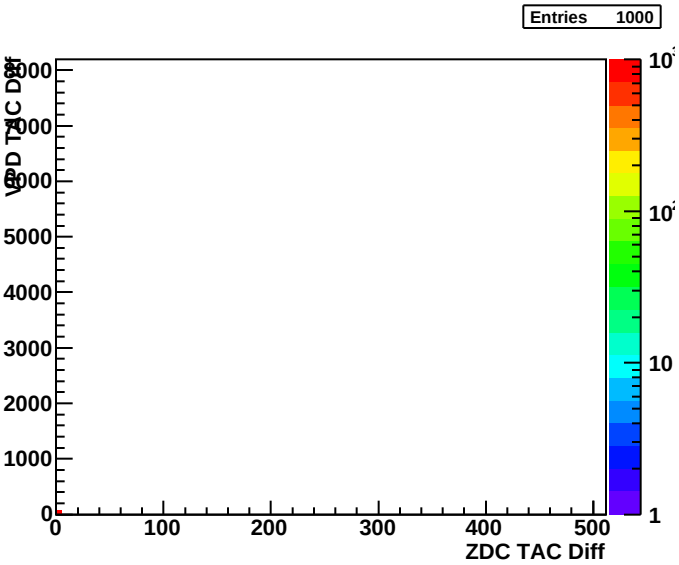

Entries 1000
BBC-L TAC Diff
BCC-S TAC Diff

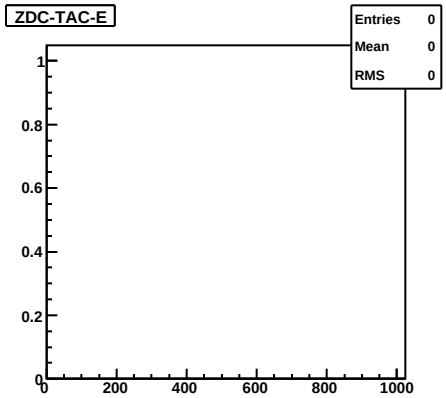

Entries 1000
BBC-L TAC Diff
VPD TAC Diff

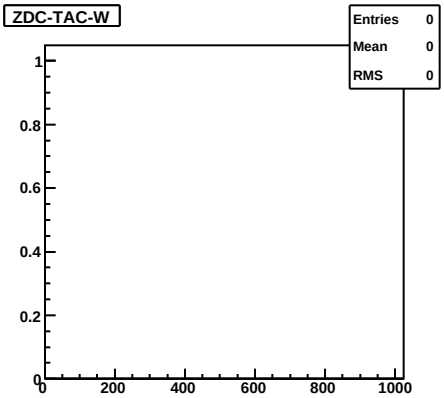

Entries 1000
BBC-L TAC Diff
ZDC TAC Diff

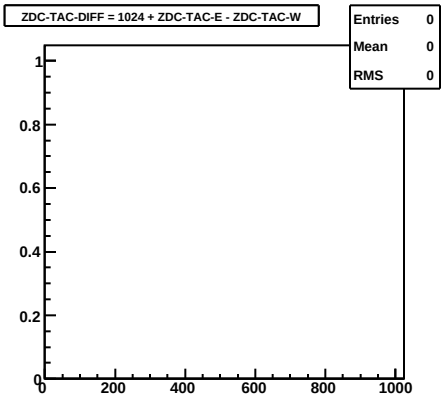

Entries 1000
BBC-S TAC Diff
VPD TAC Diff

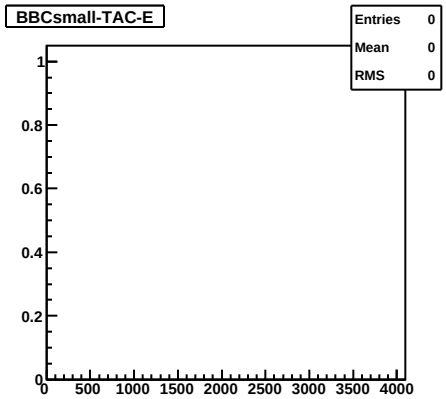

Entries 1000
BBC-S TAC Diff
ZDC TAC Diff

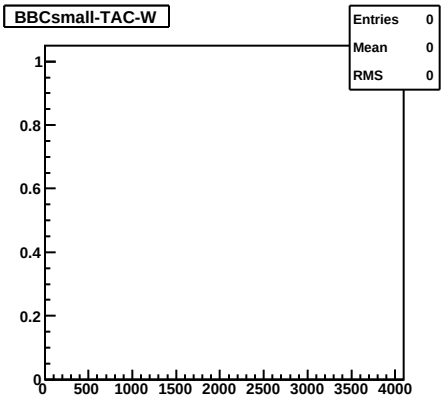

Entries 1000
VPD TAC Diff
ZDC TAC Diff

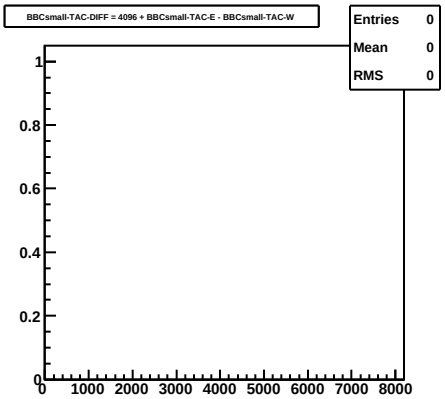

ZDC-TAC-E
Entries 0
Mean 0
RMS 0

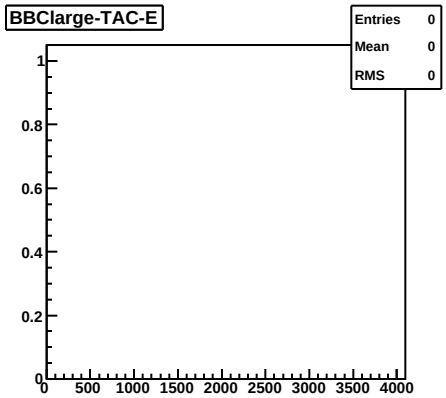

ZDC-TAC-W
Entries 0
Mean 0
RMS 0

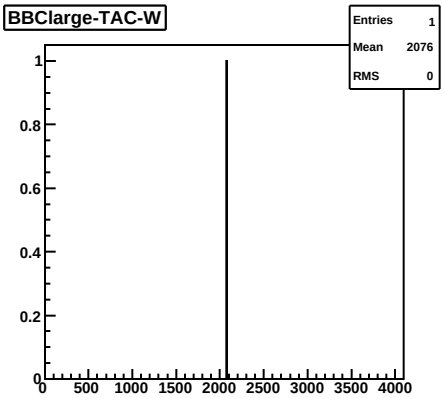

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 0
Mean 0
RMS 0

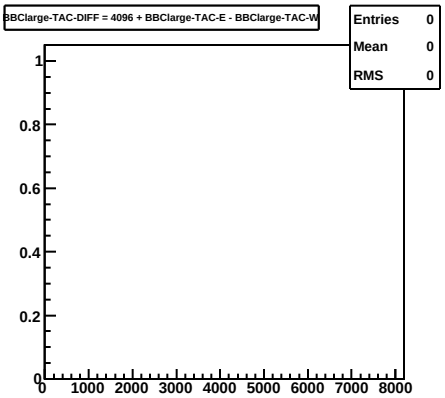

BBCsmall-TAC-E
Entries 0
Mean 0
RMS 0

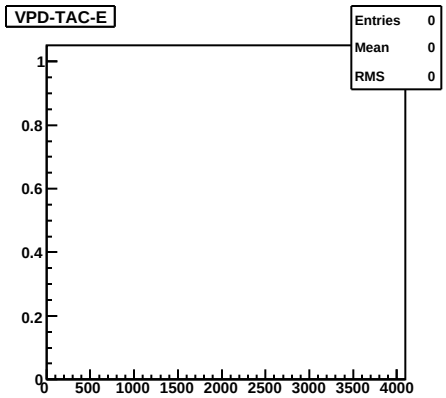

BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

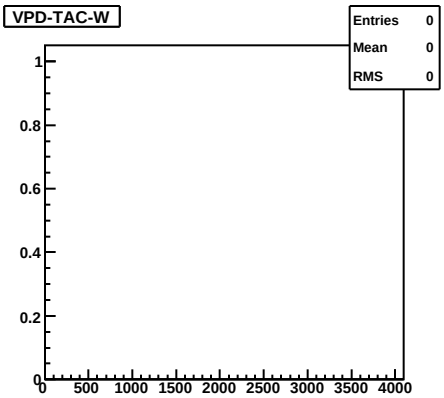

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

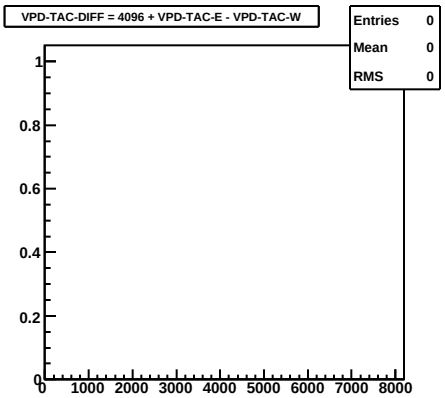

BBClarge-TAC-E
Entries 0
Mean 0
RMS 0

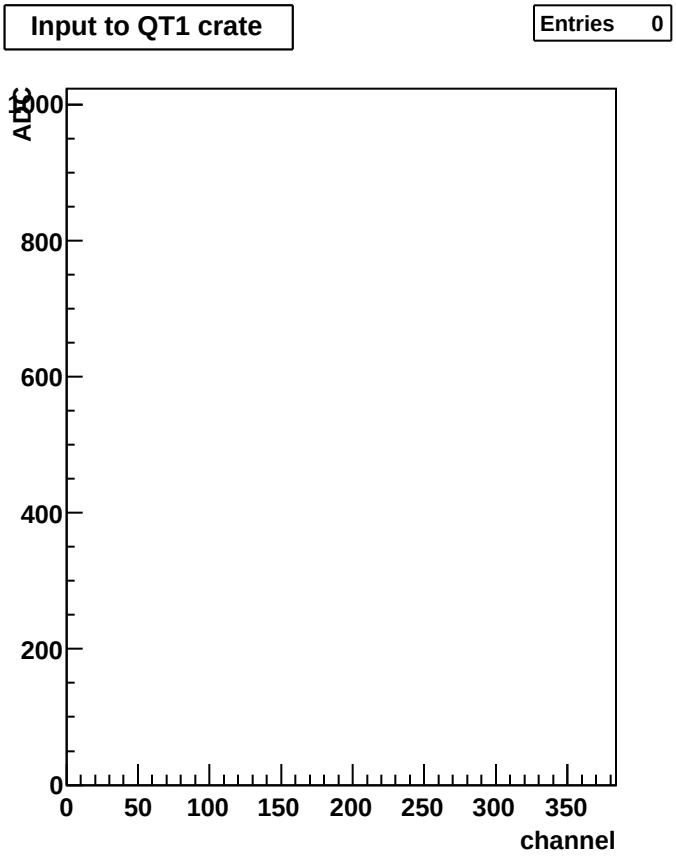

BBClarge-TAC-W
Entries 1
Mean 2076
RMS 0

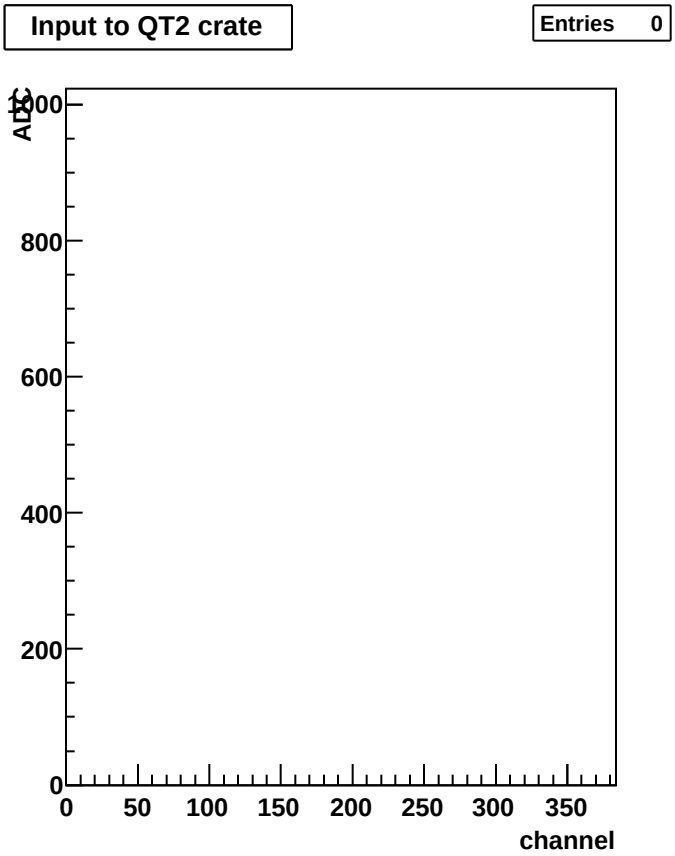

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 0
Mean 0
RMS 0

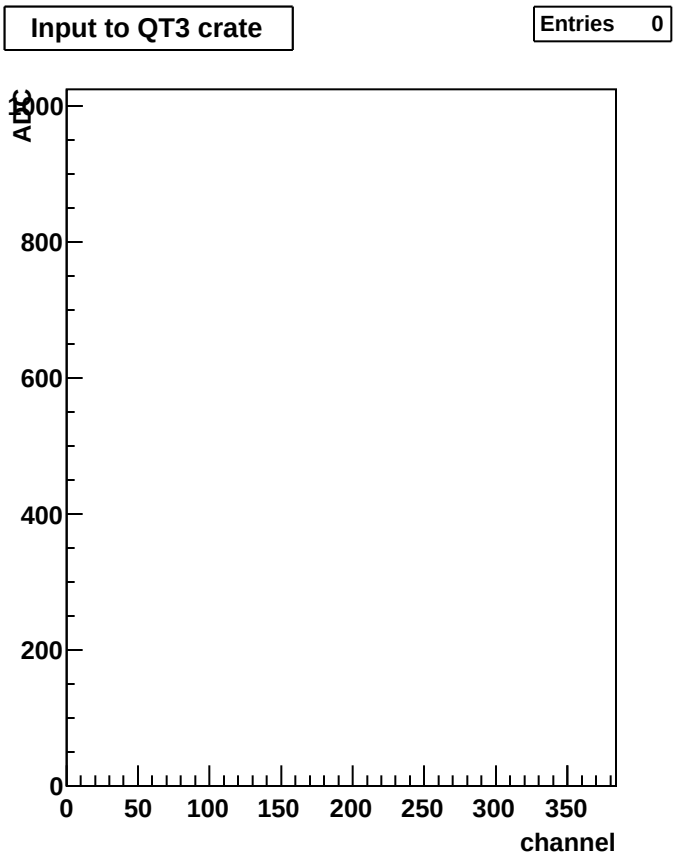

VPD-TAC-E
Entries 0
Mean 0
RMS 0

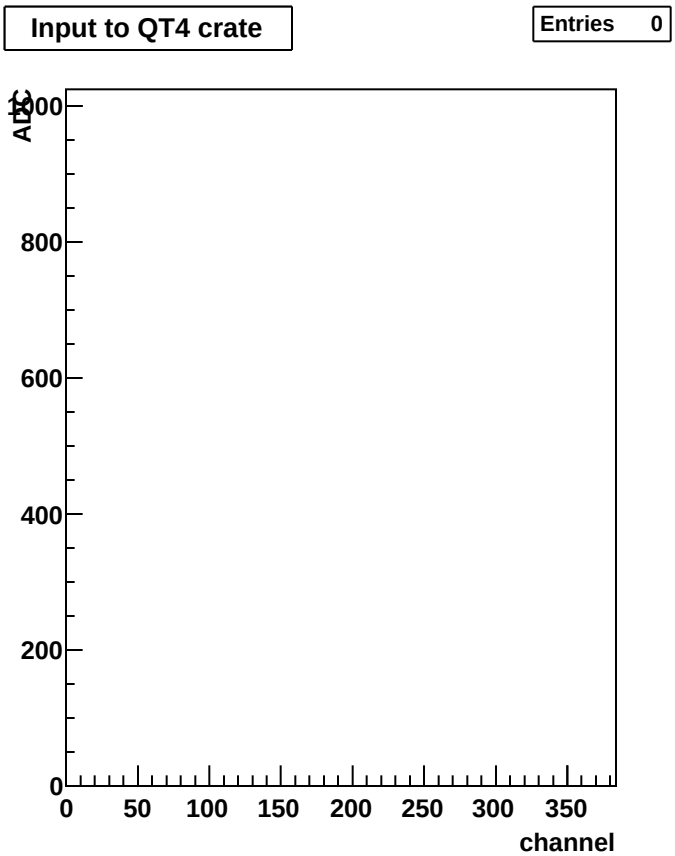

VPD-TAC-W
Entries 0
Mean 0
RMS 0

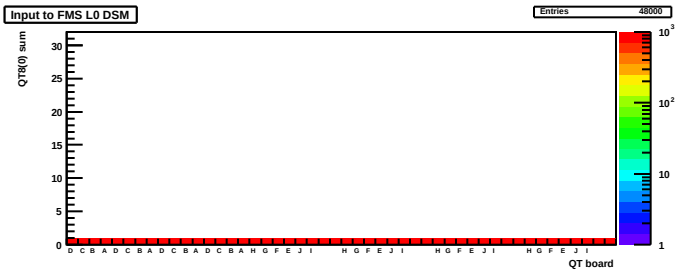

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

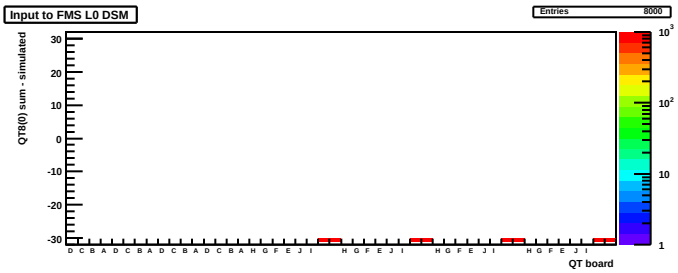

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

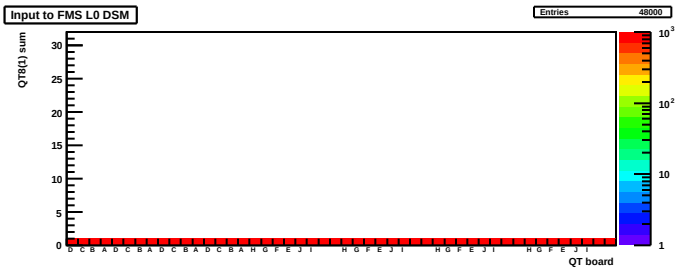

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

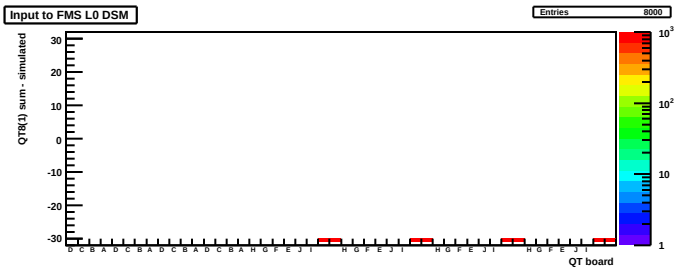

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

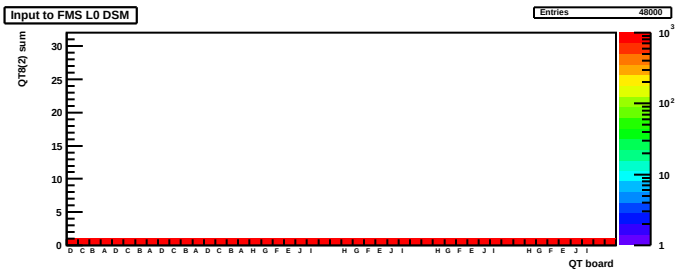

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

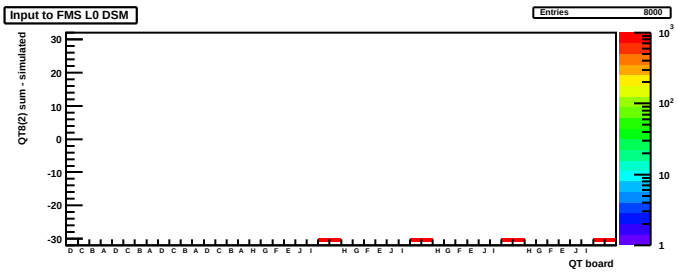

Input to FMS L0 DSM
Entries 48000
QT8(0) sum
QT board

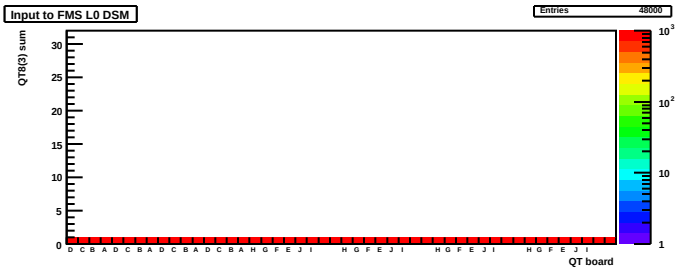

Input to FMS L0 DSM
Entries 8000
QT8(0) sum - simulated
QT board

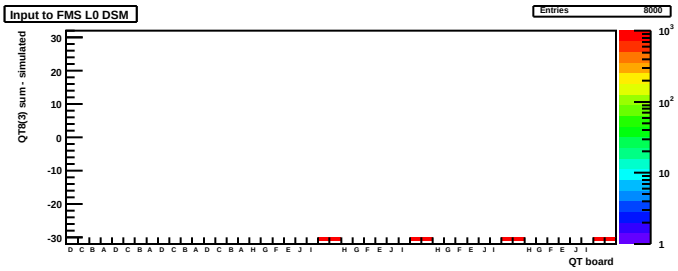

Input to FMS L0 DSM
Entries 48000
QT8(1) sum
QT board

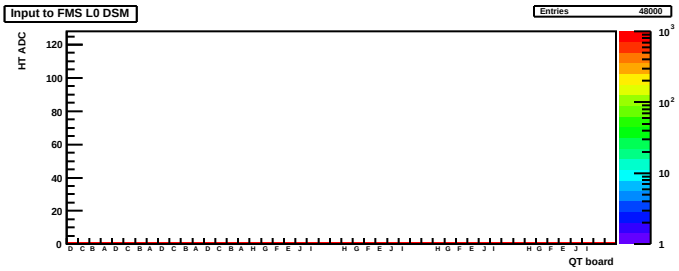

Input to FMS L0 DSM
Entries 8000
QT8(1) sum - simulated
QT board

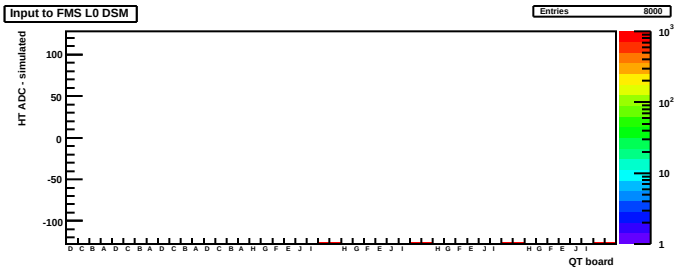

Input to FMS L0 DSM
Entries 48000
QT8(2) sum
QT board

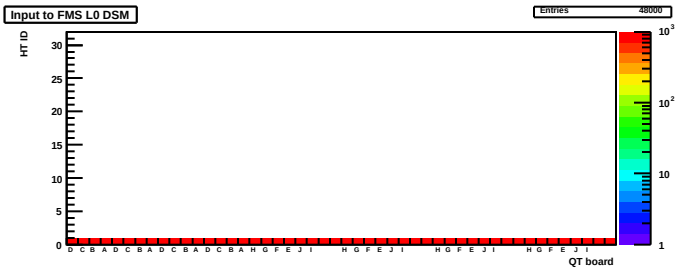

Input to FMS L0 DSM
Entries 8000
QT8(2) sum - simulated
QT board

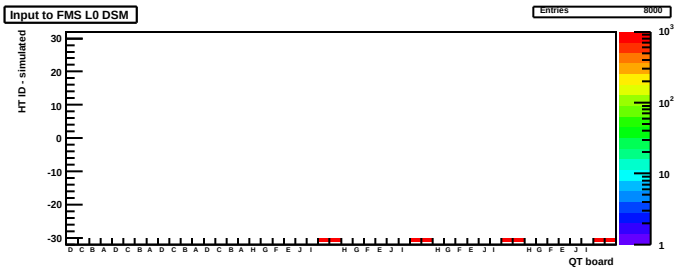

Input to FMS L0 DSM
Entries 48000
QT8(3) sum
QT board

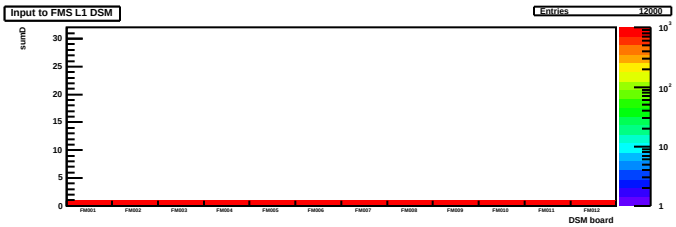

Input to FMS L0 DSM
Entries 8000
QT8(3) sum - simulated
QT board

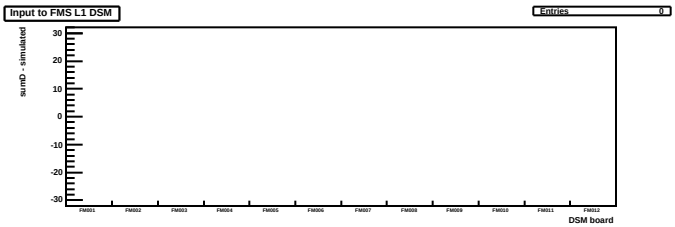

Input to FMS L0 DSM
Entries 48000
HT ADC
QT board

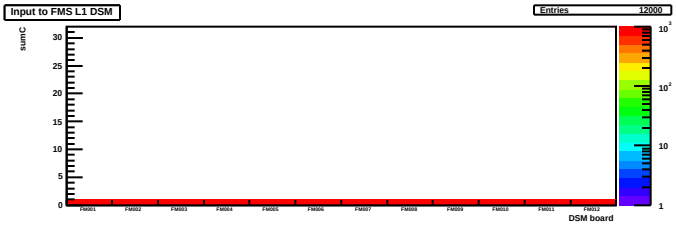

Input to FMS L0 DSM
Entries 8000
HT ADC - simulated
QT board

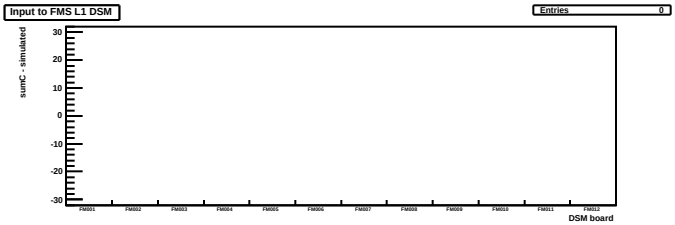

Input to FMS L0 DSM
Entries 48000
HT ID
QT board

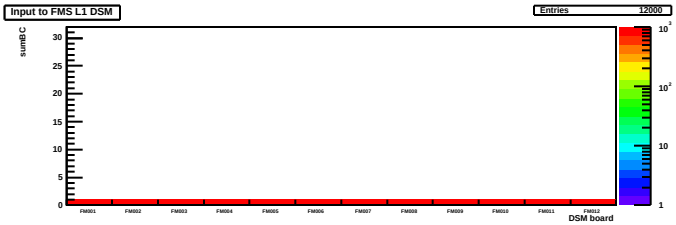

Input to FMS L0 DSM
Entries 8000
HT ID - simulated
QT board

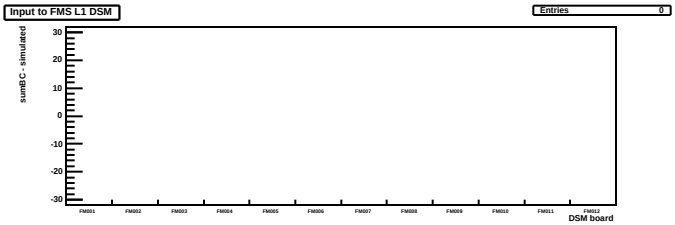

Input to FMS L1 DSM
Entries 12000
sumD
DSM board

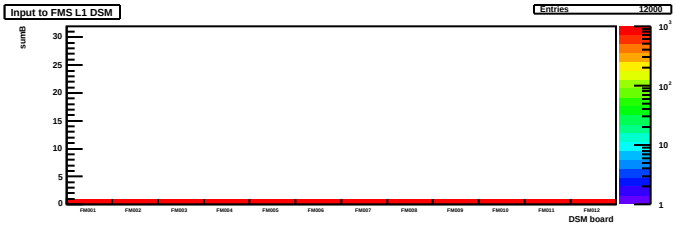

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

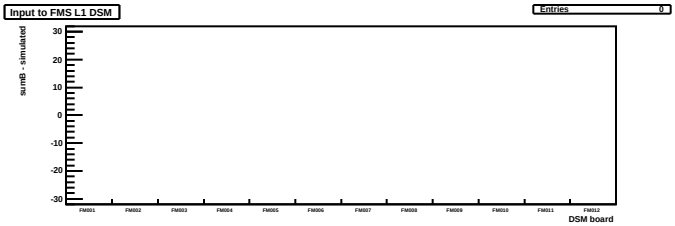

Input to FMS L1 DSM
Entries 12000
sumC
DSM board

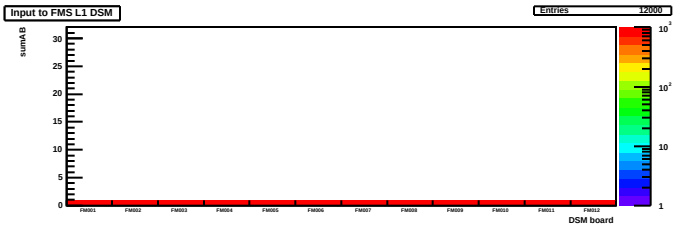

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

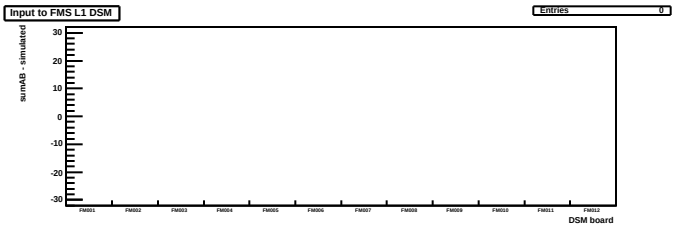

Input to FMS L1 DSM
Entries 12000
sumBC
DSM board

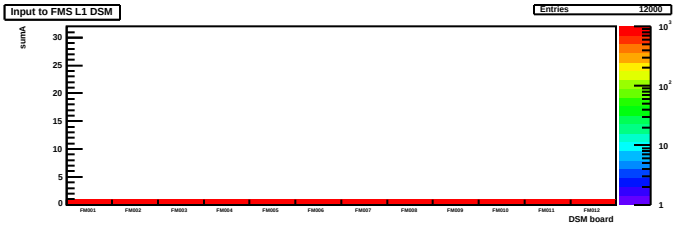

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

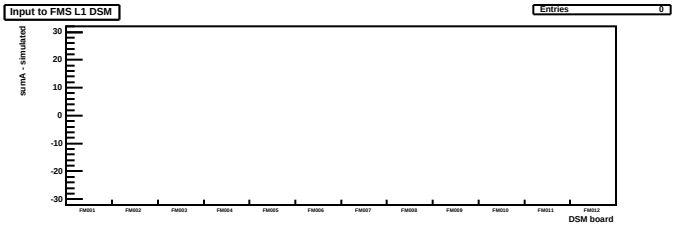

Input to FMS L1 DSM
Entries 12000
sumB
DSM board

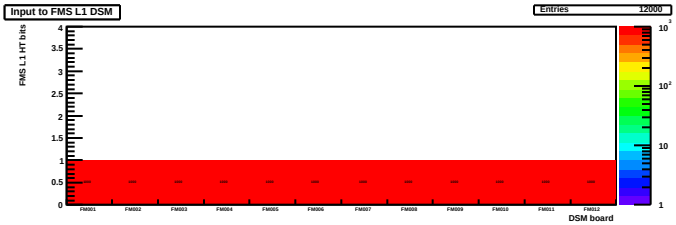

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

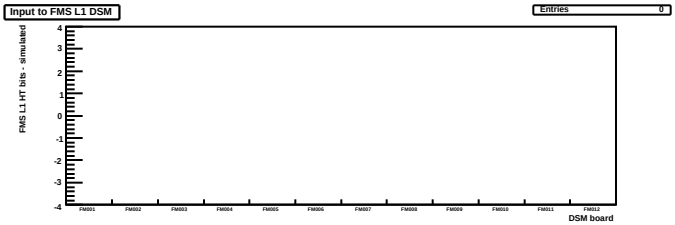

Input to FMS L1 DSM
Entries 12000
sumAB
DSM board

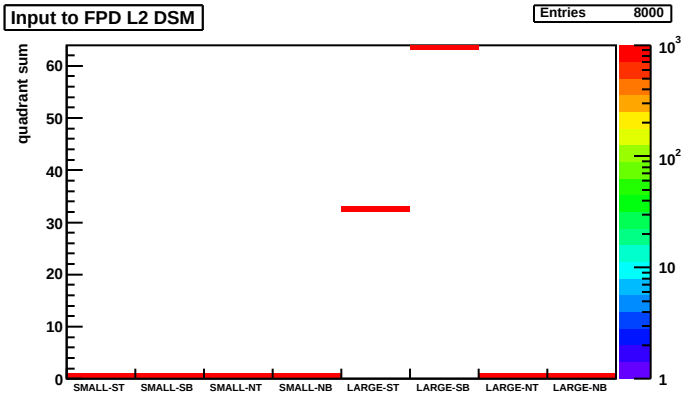

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

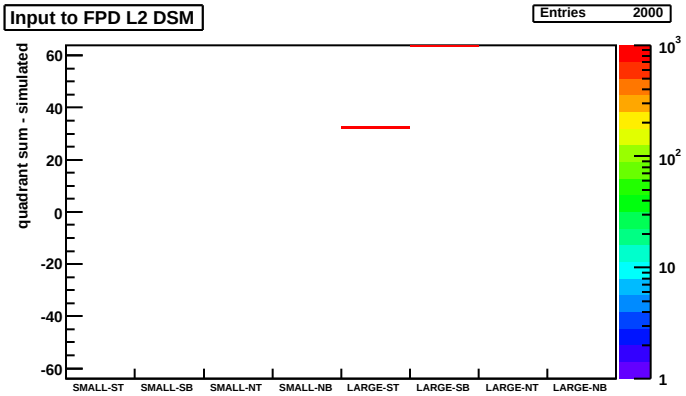

Input to FMS L1 DSM
Entries 12000
sumA
DSM board

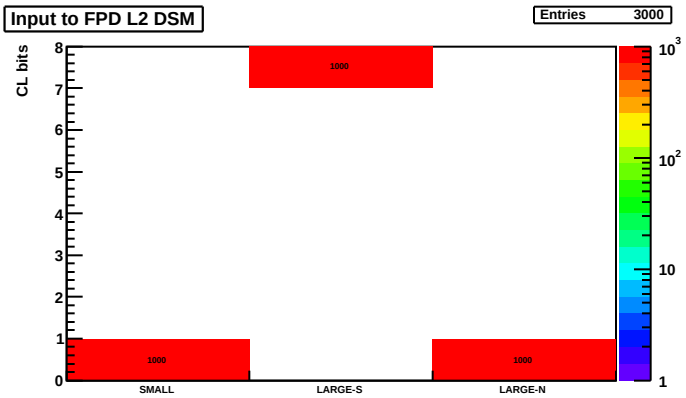

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

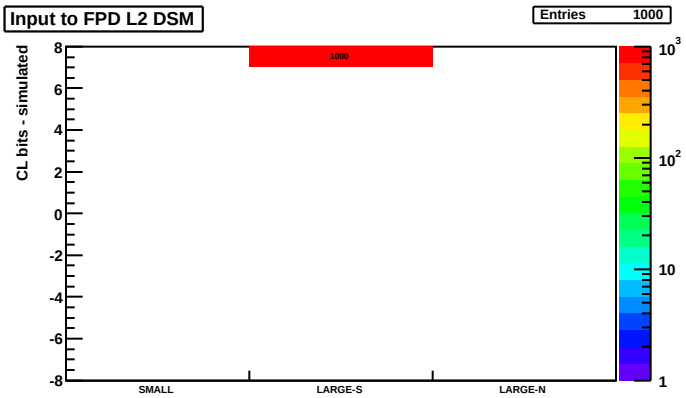

Input to FMS L1 DSM
Entries 12000
FMS L1 HT bits
DSM board

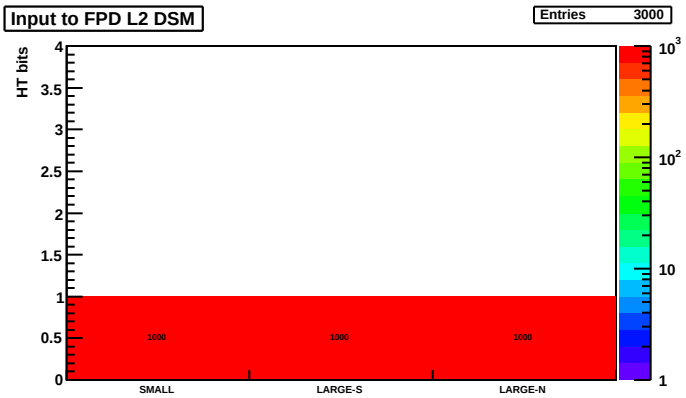

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

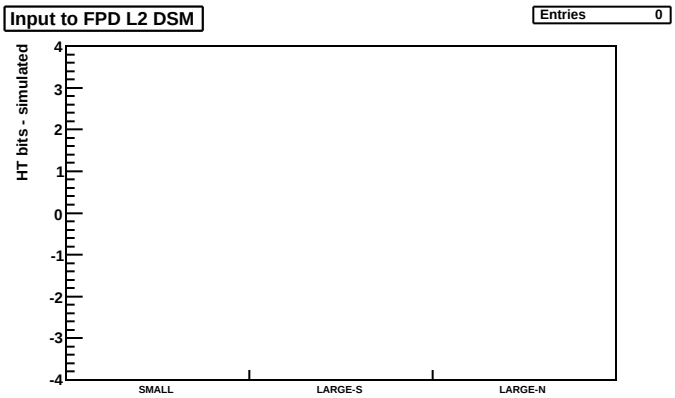

Input to FPD L2 DSM
Entries 8000
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

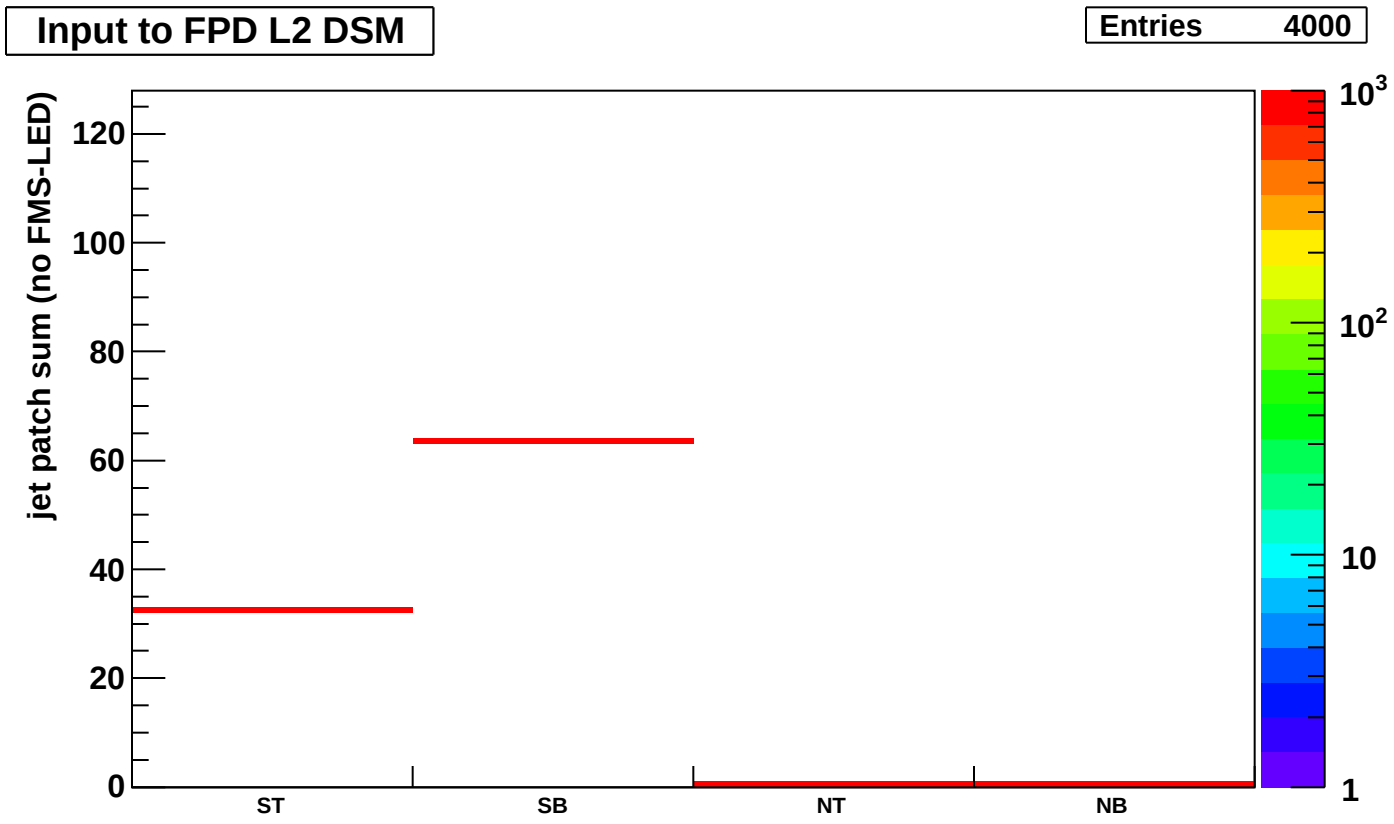

Input to FPD L2 DSM
Entries 2000
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

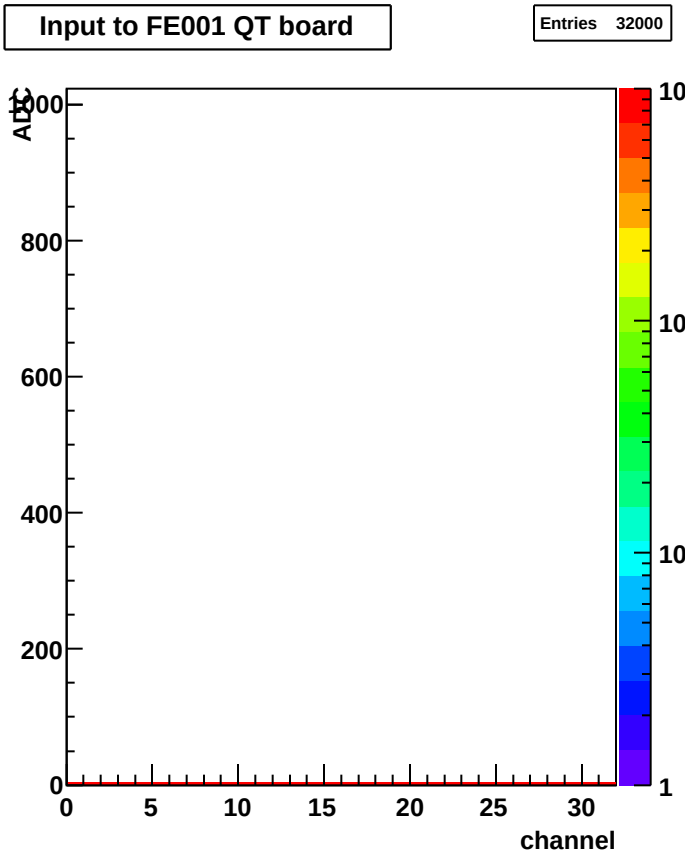

Input to FPD L2 DSM
Entries 3000
CL bits
1000
1000
1000
SMALL LARGE-S LARGE-N

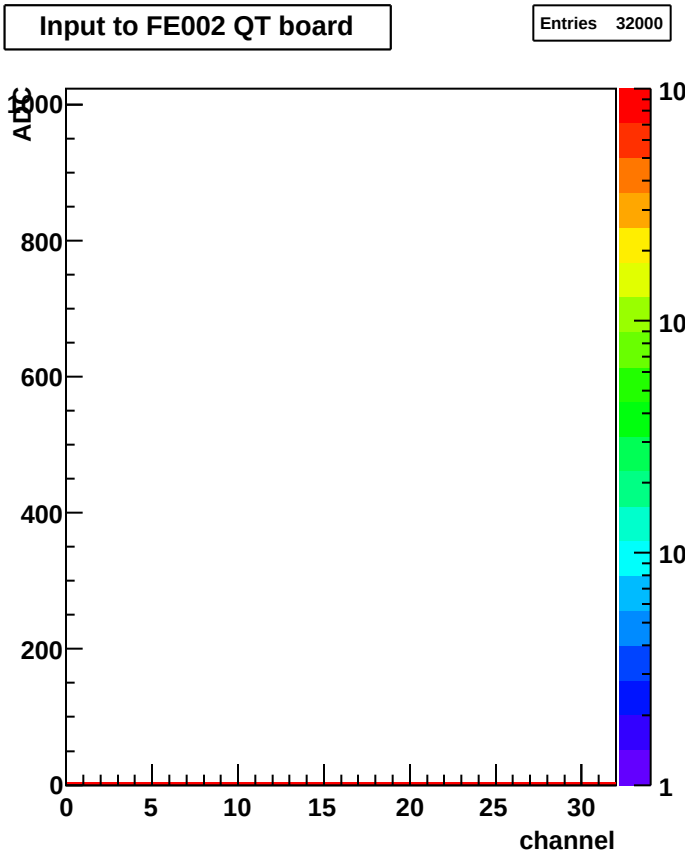

Input to FPD L2 DSM
Entries 1000
CL bits - simulated
1000
SMALL LARGE-S LARGE-N

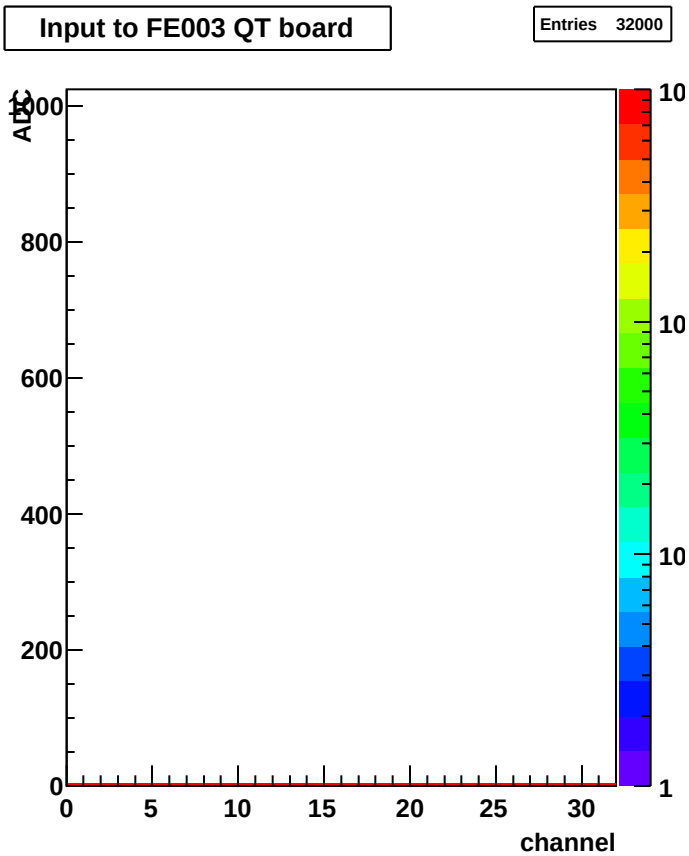

Input to FPD L2 DSM
Entries 3000
HT bits
1000
1000
1000
SMALL LARGE-S LARGE-N

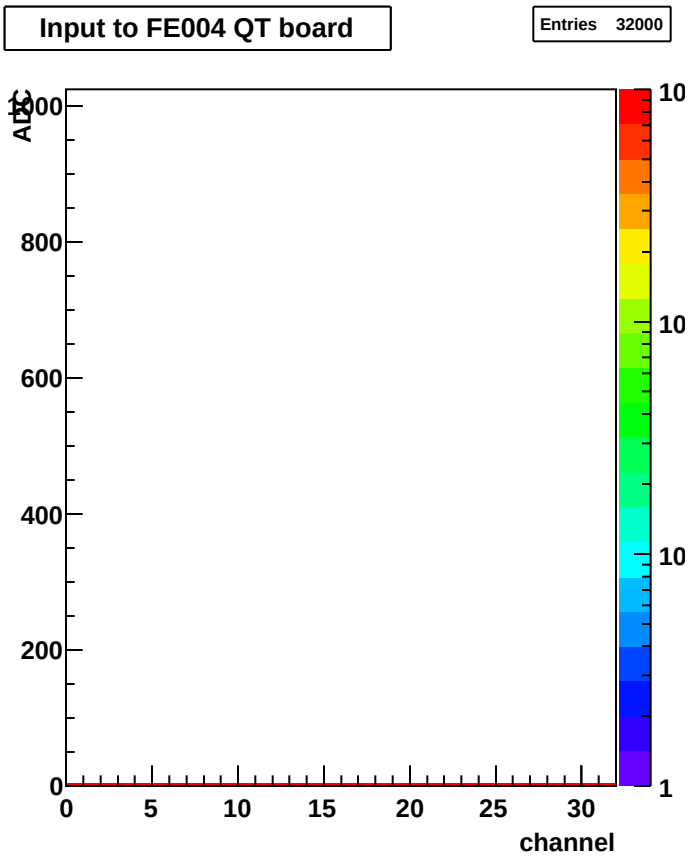

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

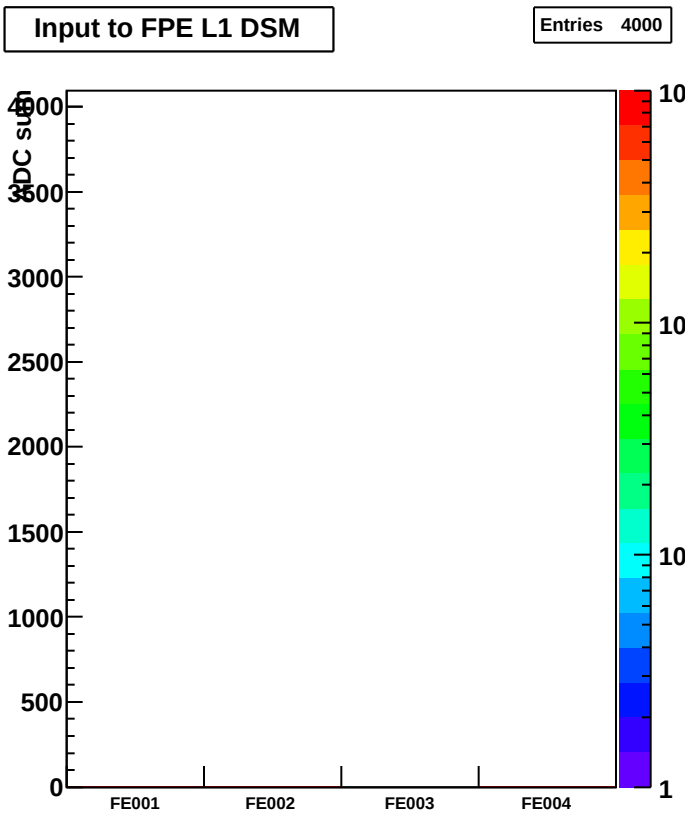

Input to FPD L2 DSM
Entries 4000
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3

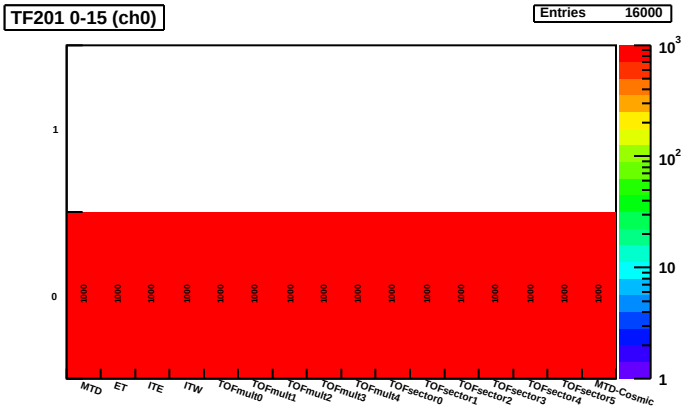

Input to FE001 QT board
Entries 32000
ADC
channel

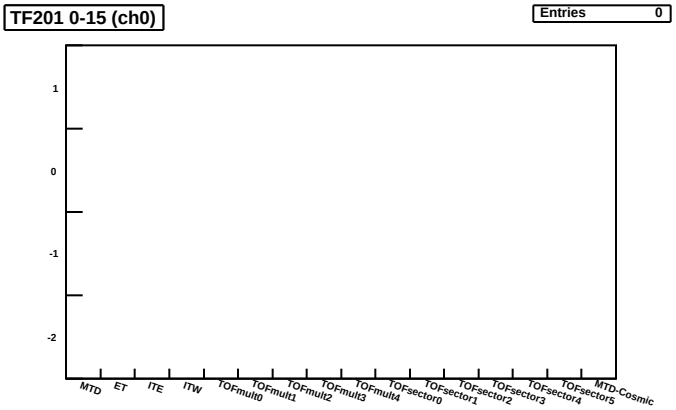

Input to FE002 QT board
Entries 32000
ADC
channel

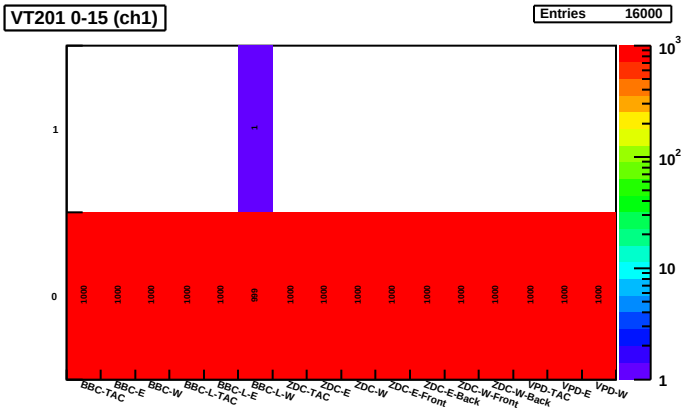

Input to FE003 QT board
Entries 32000
ADC
channel

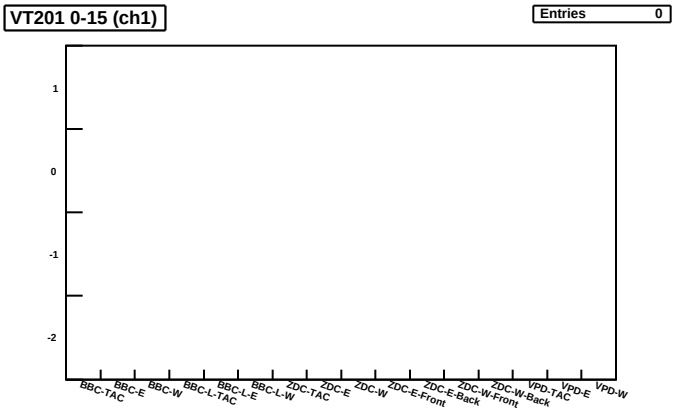

Input to FE004 QT board
Entries 32000
ADC
channel

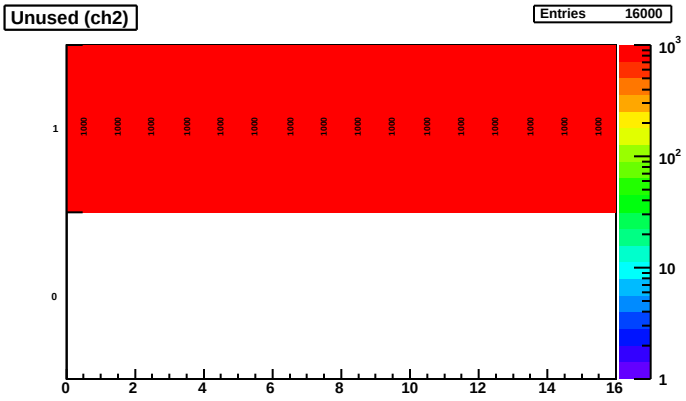

Input to FPE L1 DSM
Entries 4000
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1

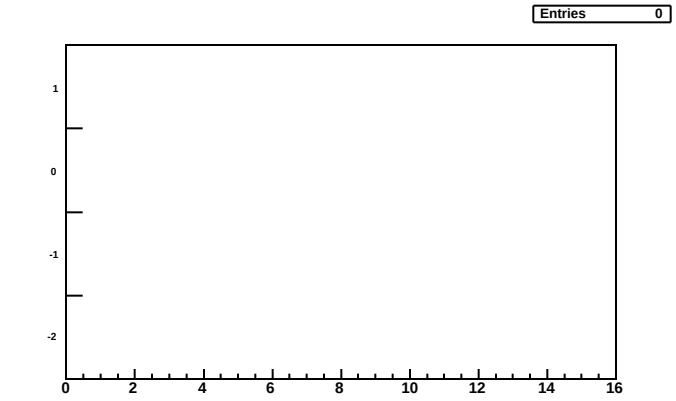

TF201 0-15 (ch0)
Entries 16000
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

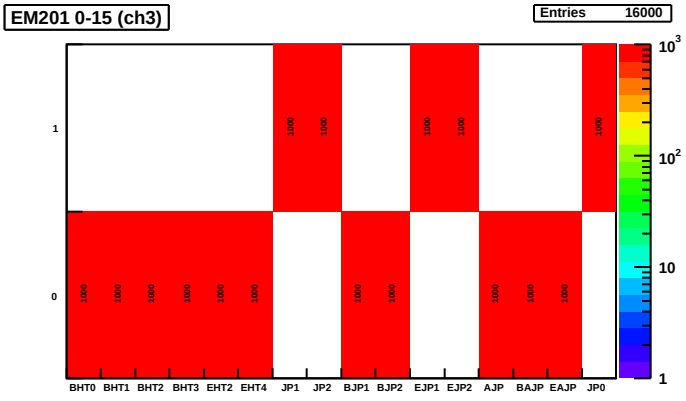

TF201 0-15 (ch0)
Entries 0
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

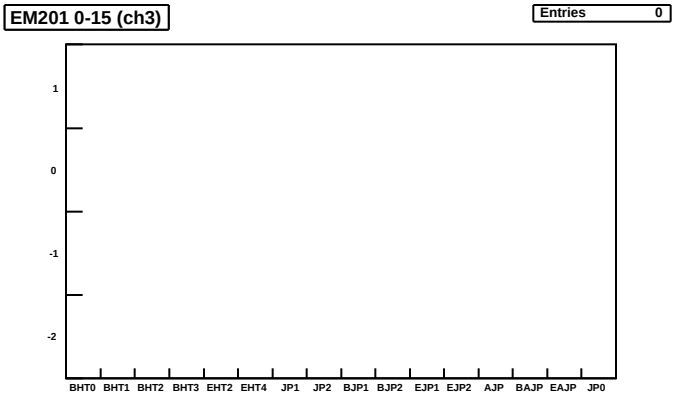

VT201 0-15 (ch1)
Entries 16000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

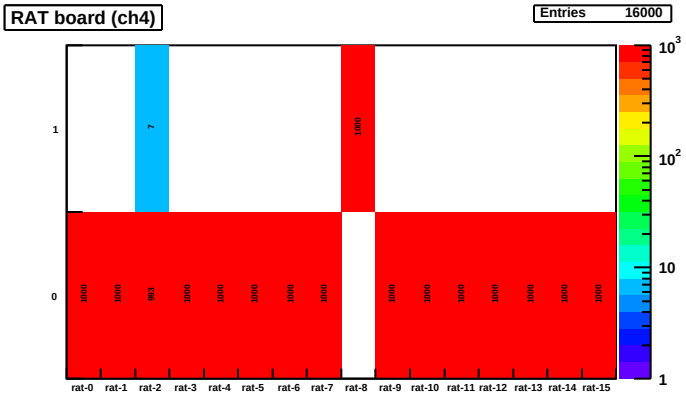

VT201 0-15 (ch1)
Entries 0
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

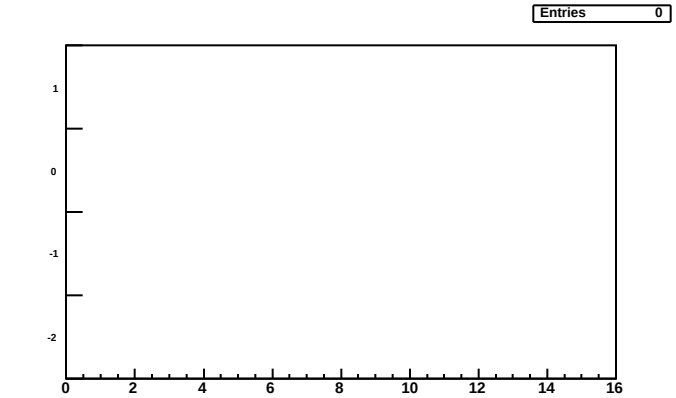

Unused (ch2)
Entries 16000


Entries 0


EM201 0-15 (ch3)
Entries 16000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0


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


RAT board (ch4)
Entries 16000
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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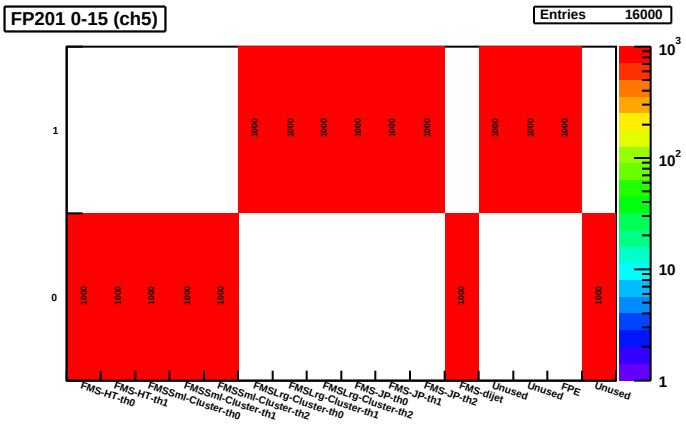
FP201 0-15 (ch5)
Entries 16000
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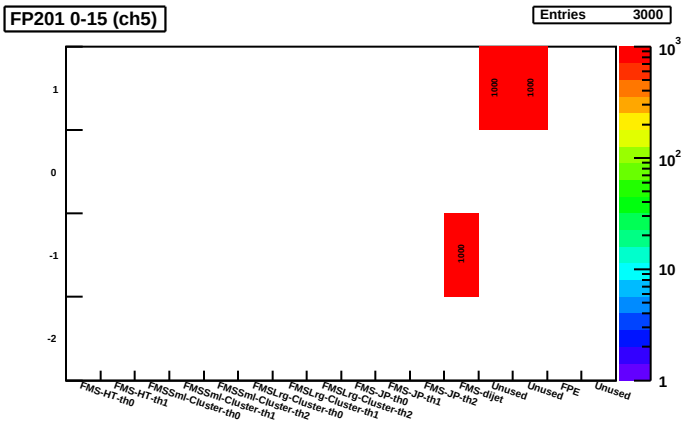
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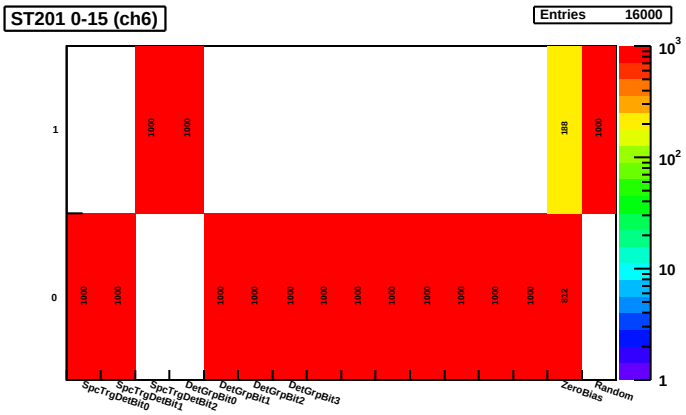
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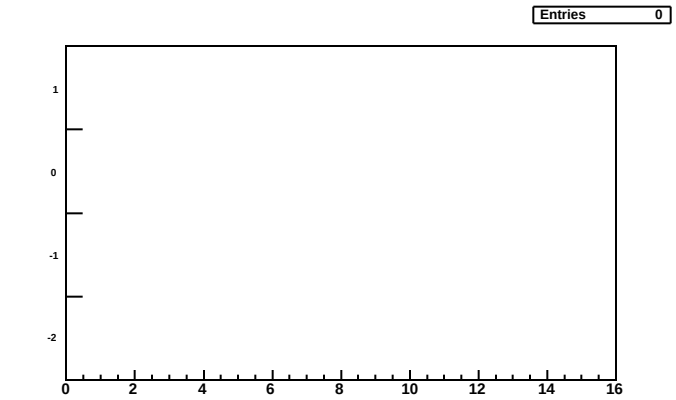
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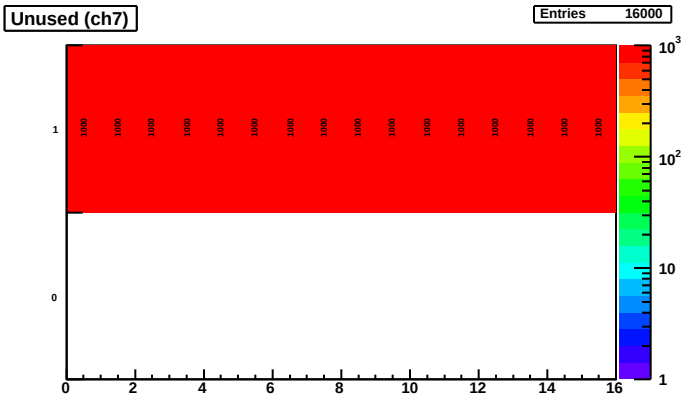
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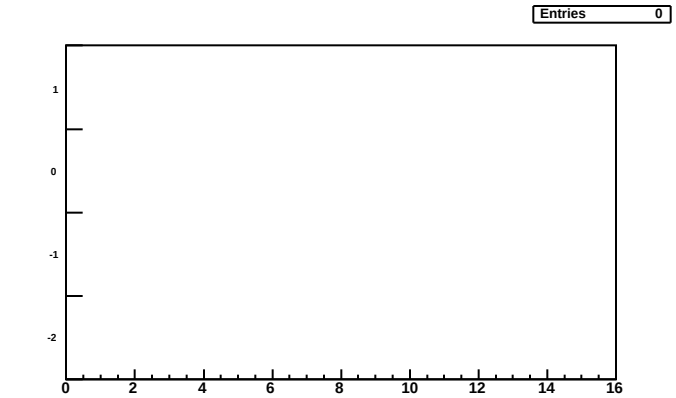
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