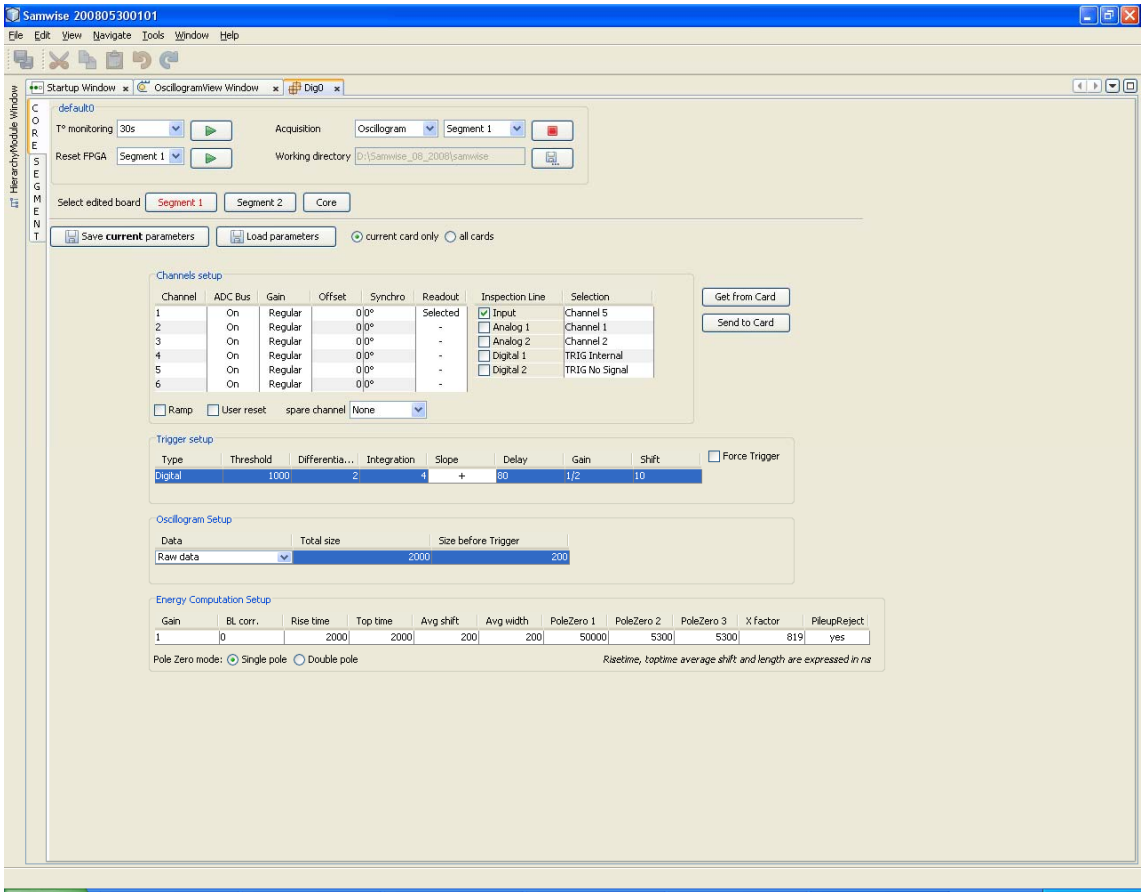
Agata_Digitiser_Offset_and_gain_test

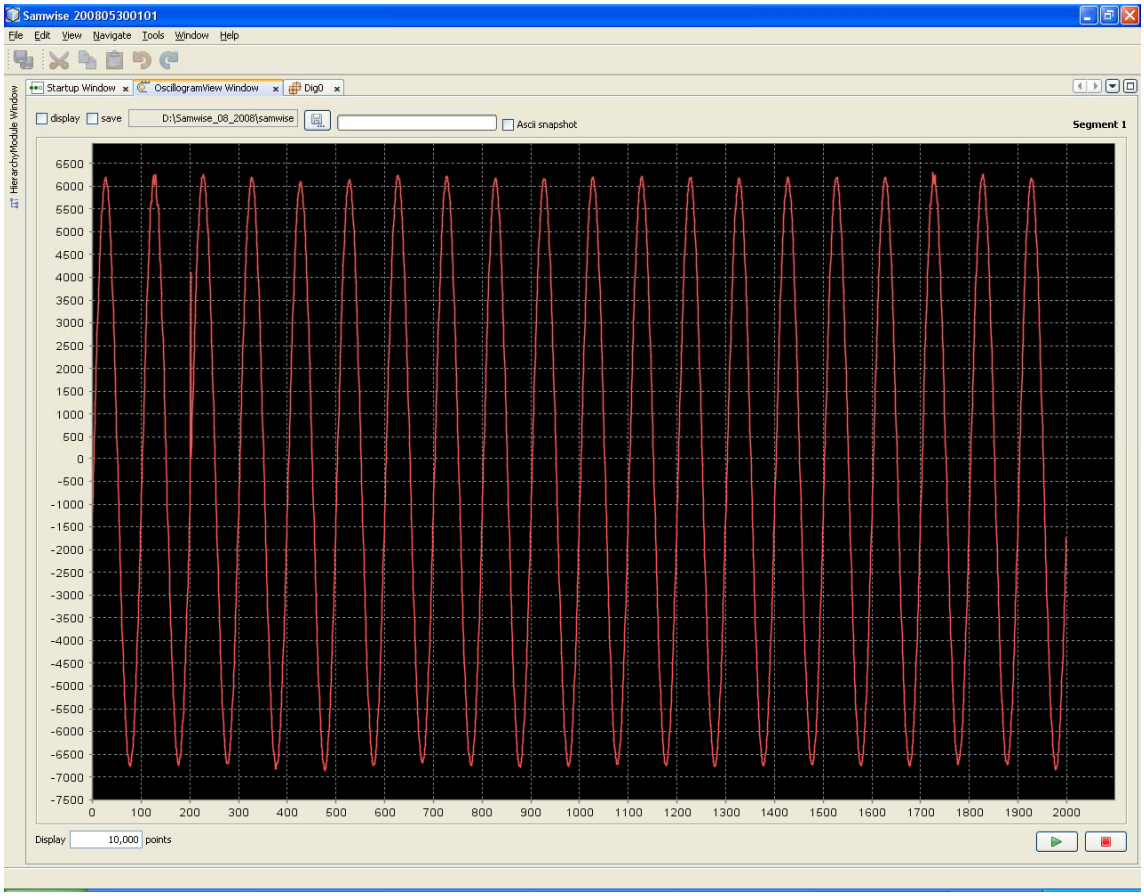
The Ramp test does not excersise all the adc codes.

Use cmode to diff mode converter Nim module (designed bt iphc-drs, Strasburg), to drive dummy sine wave to the digitisers cards.

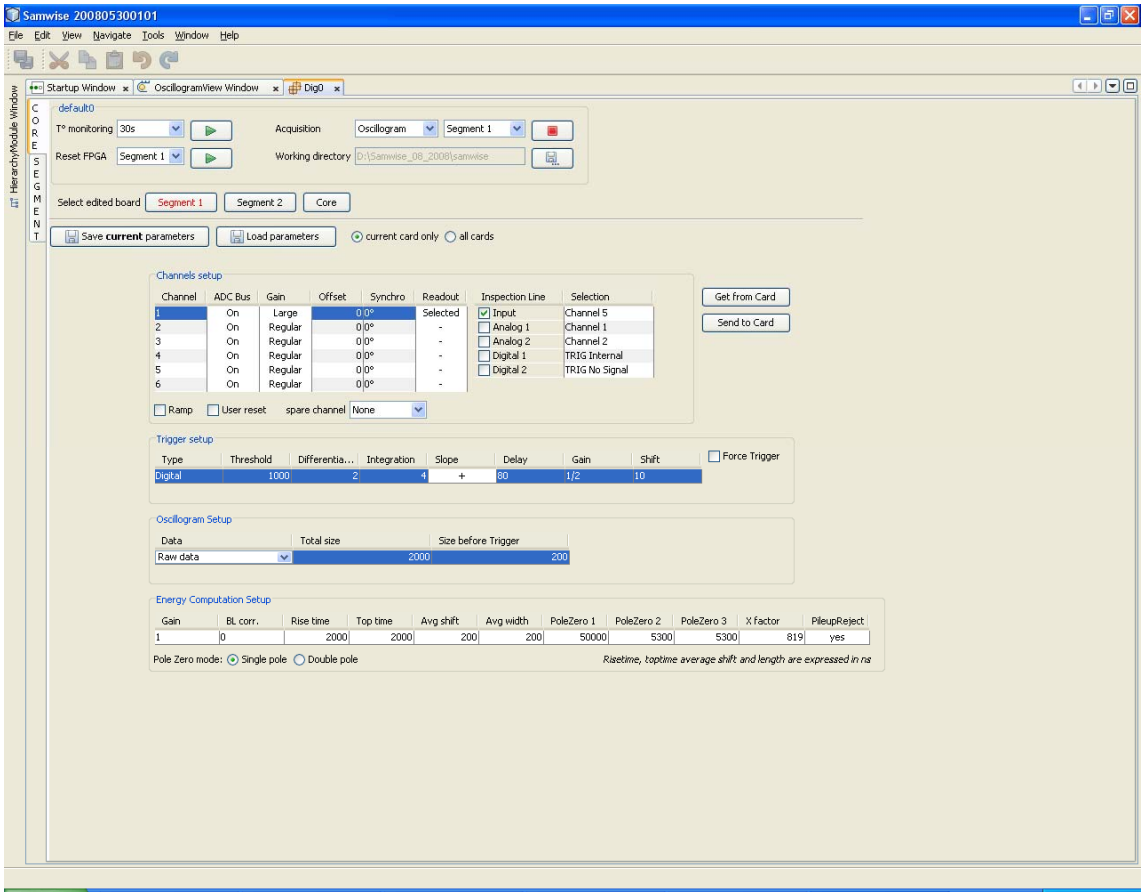
Set input for the above Nim module at 1V pk-pk, load terminated at 50R.

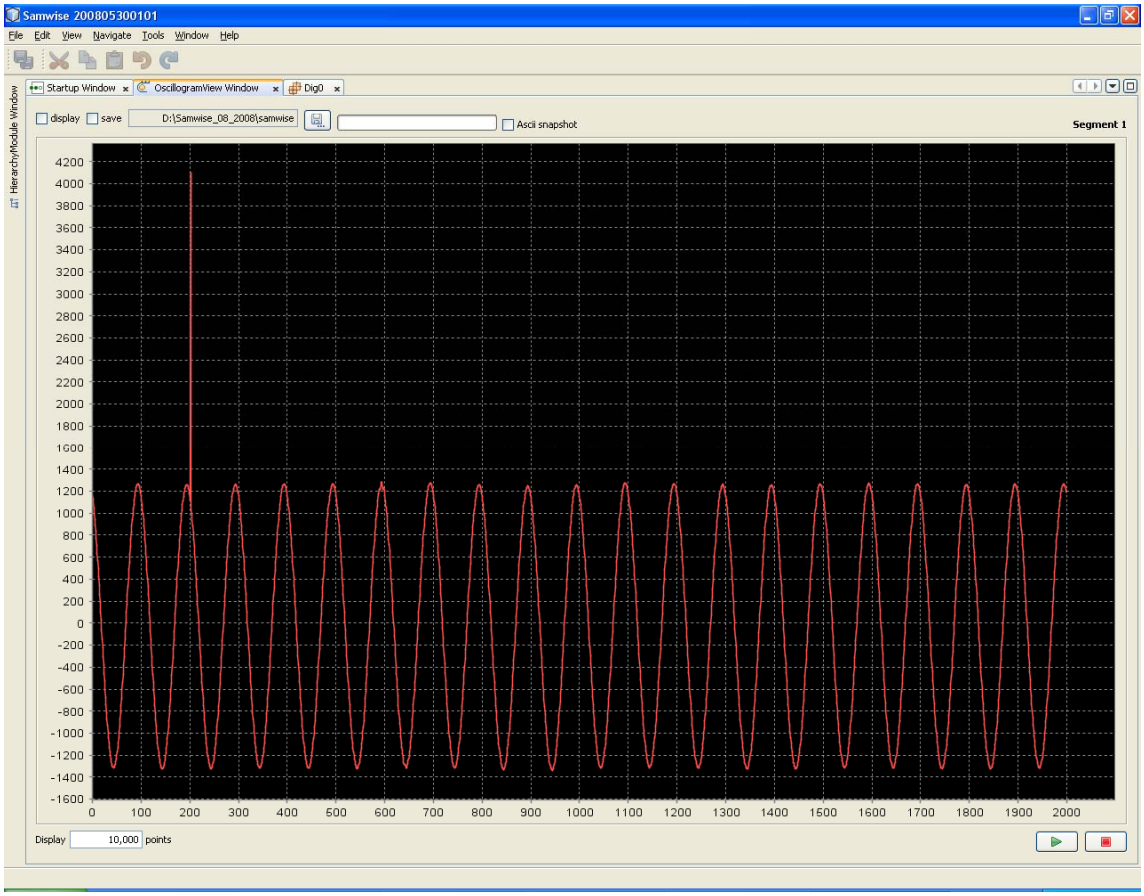
Select channel (as shown below), send it to card (“Send to Card”, make sure that box is deselected before sending to card for change to take effect) and acquire the data as shown below.



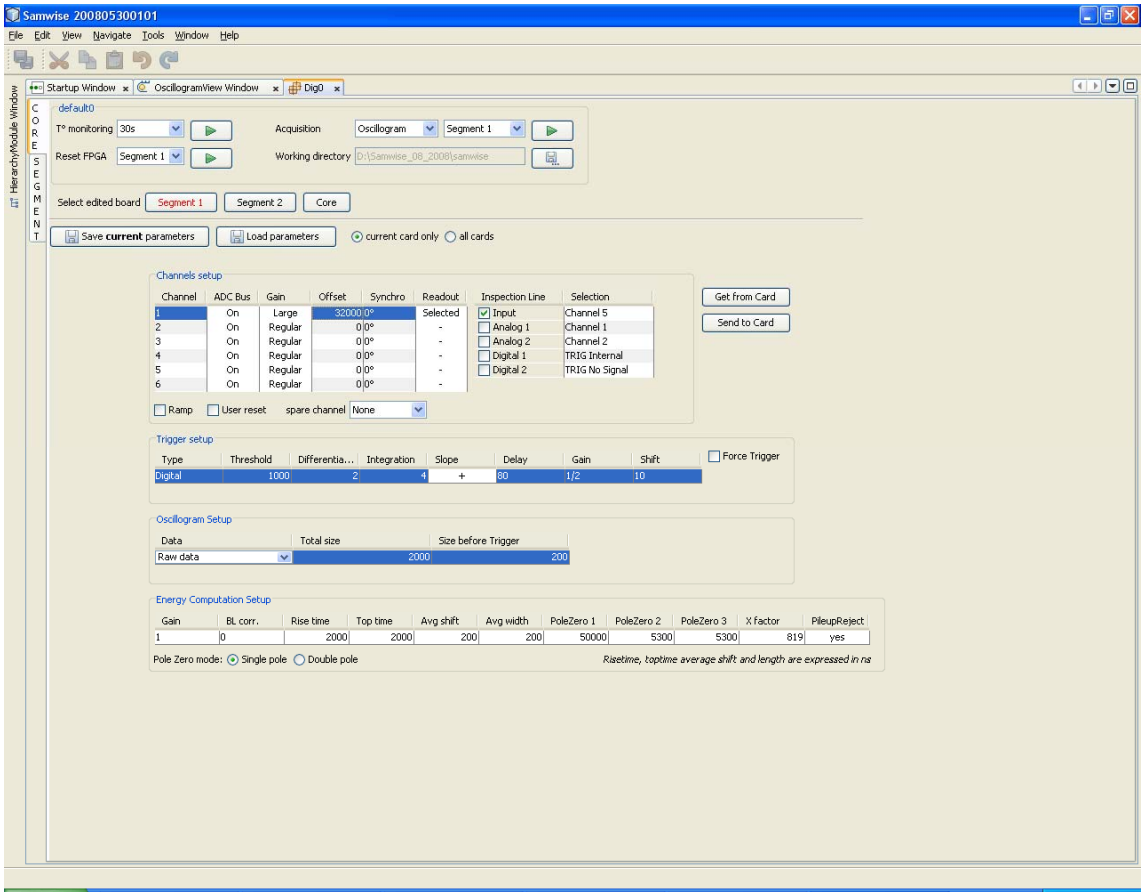

Samwise 200805300101
File Edit View Navigate Tools Window Help
Startup Window
OscillogramView Window
Dig0
HierarchyModule Window
display
save
D:\Samwise_08_2008\samwise
Ascii snapshot
Segment 1
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
-500
-1000
-1500
-2000
-2500
-3000
-3500
-4000
-4500
-5000
-5500
-6000
-6500
-7000
-7500
0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
Display
10,000
points

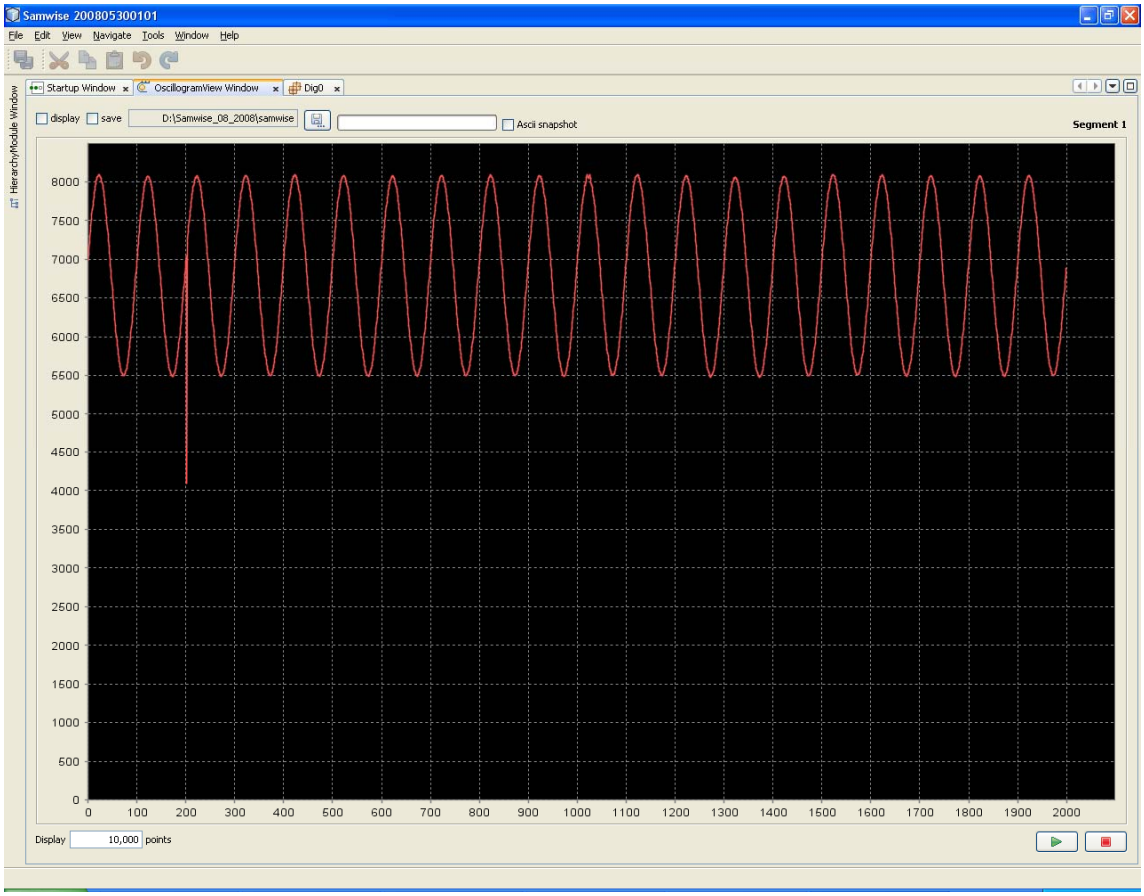
Under gain , (large, x5, refers to the preamp output, not the gain of the adc input driver) select large, send it to card and acquire the data as shown below.



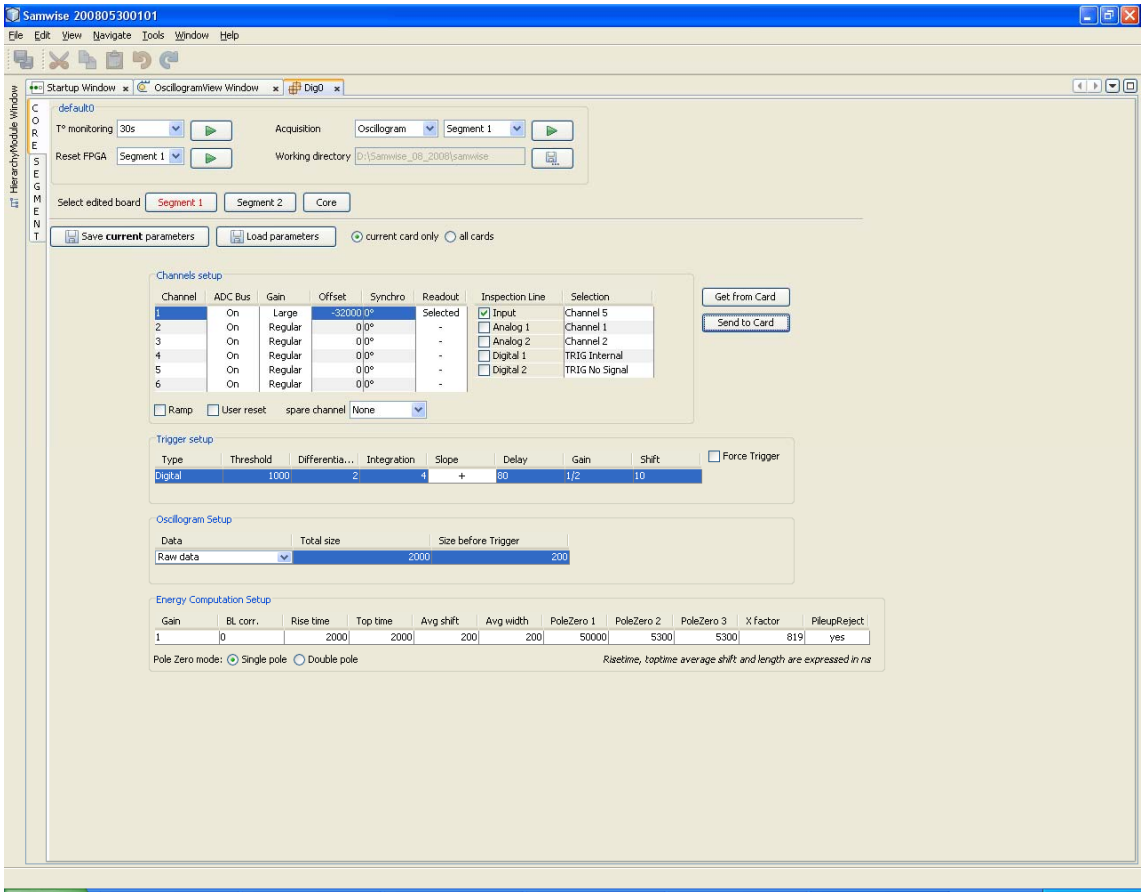

Samwise 200805300101
File Edit View Navigate Tools Window Help
Startup Window
OscillogramView Window
Dig0
HierarchyModule Window
display
save
D:\Samwise_08_2008\samwise
Ascii snapshot
Segment 1
4200
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
-200
-400
-600
-800
-1000
-1200
-1400
-1600
0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
Display
10,000
points

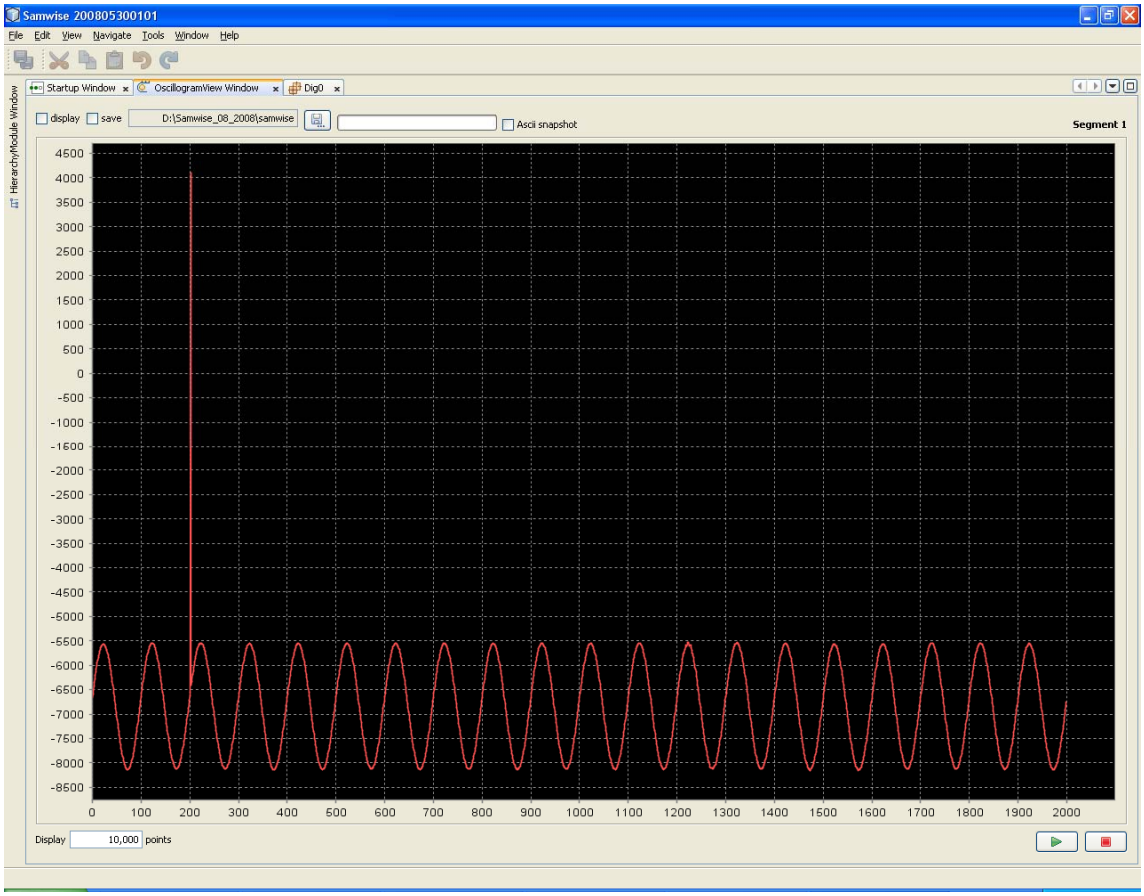
Under offset, type 32000 (max positive offset) , send it to card and acquire the data as shown below.




Samwise 200805300101
File Edit View Navigate Tools Window Help
Startup Window
OscillogramView Window
Dig0
HierarchyModule Window
display
save
D:\Samwise_08_2008\samwise
Ascii snapshot
Segment 1
8000
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
Display
10,000
points

Under offset, type 32000 (max negative offset) , send it to card and acquire the data as shown below.





Repeat for all 6 channels and all cards in the system (6 segment, one core).