ADC12DJ3200EVM
Decimation Mode Usage

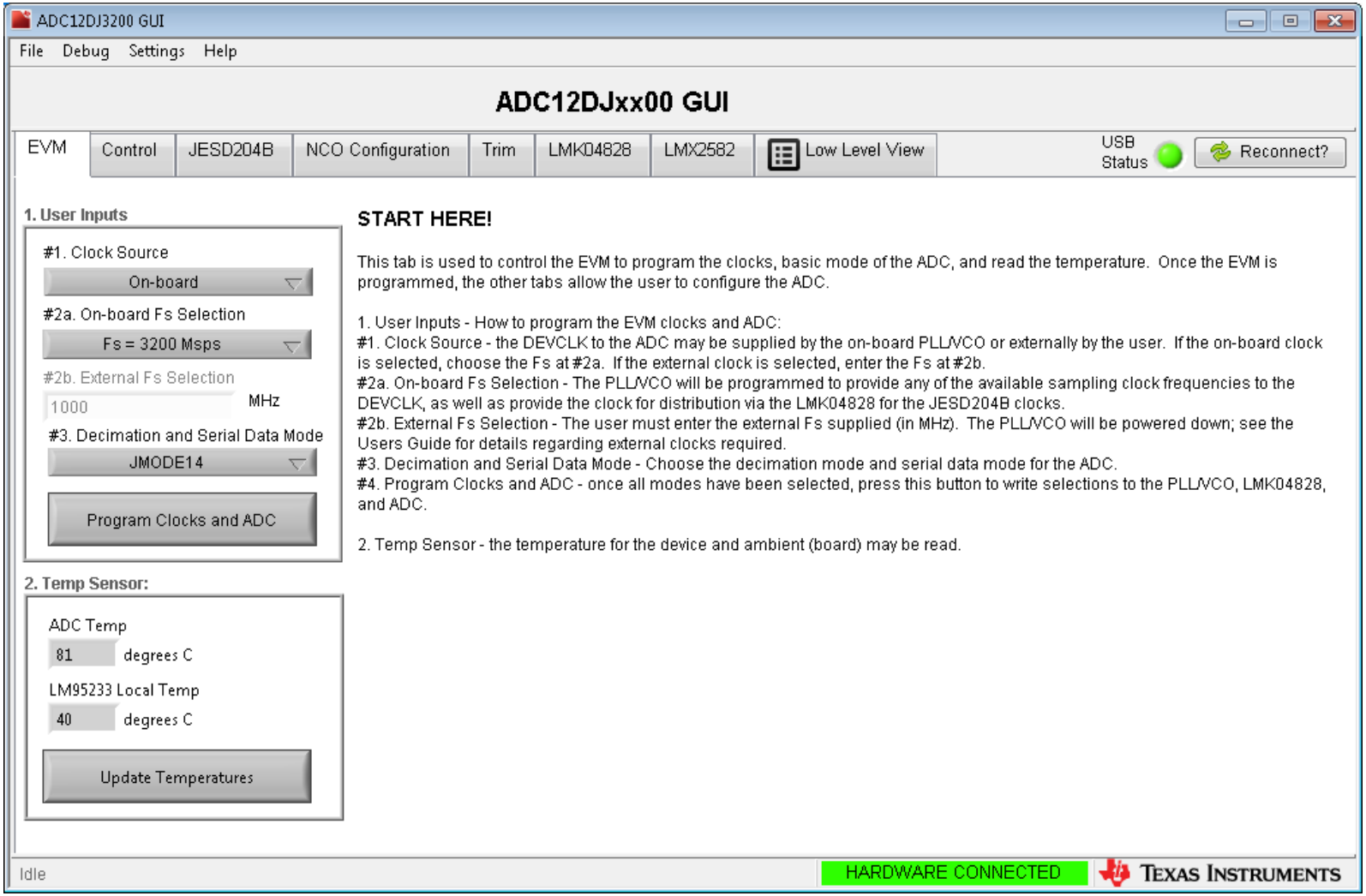
JMODE14 – Dual Input – 3200MSPS

Decimate by 8 – Complex Data Output

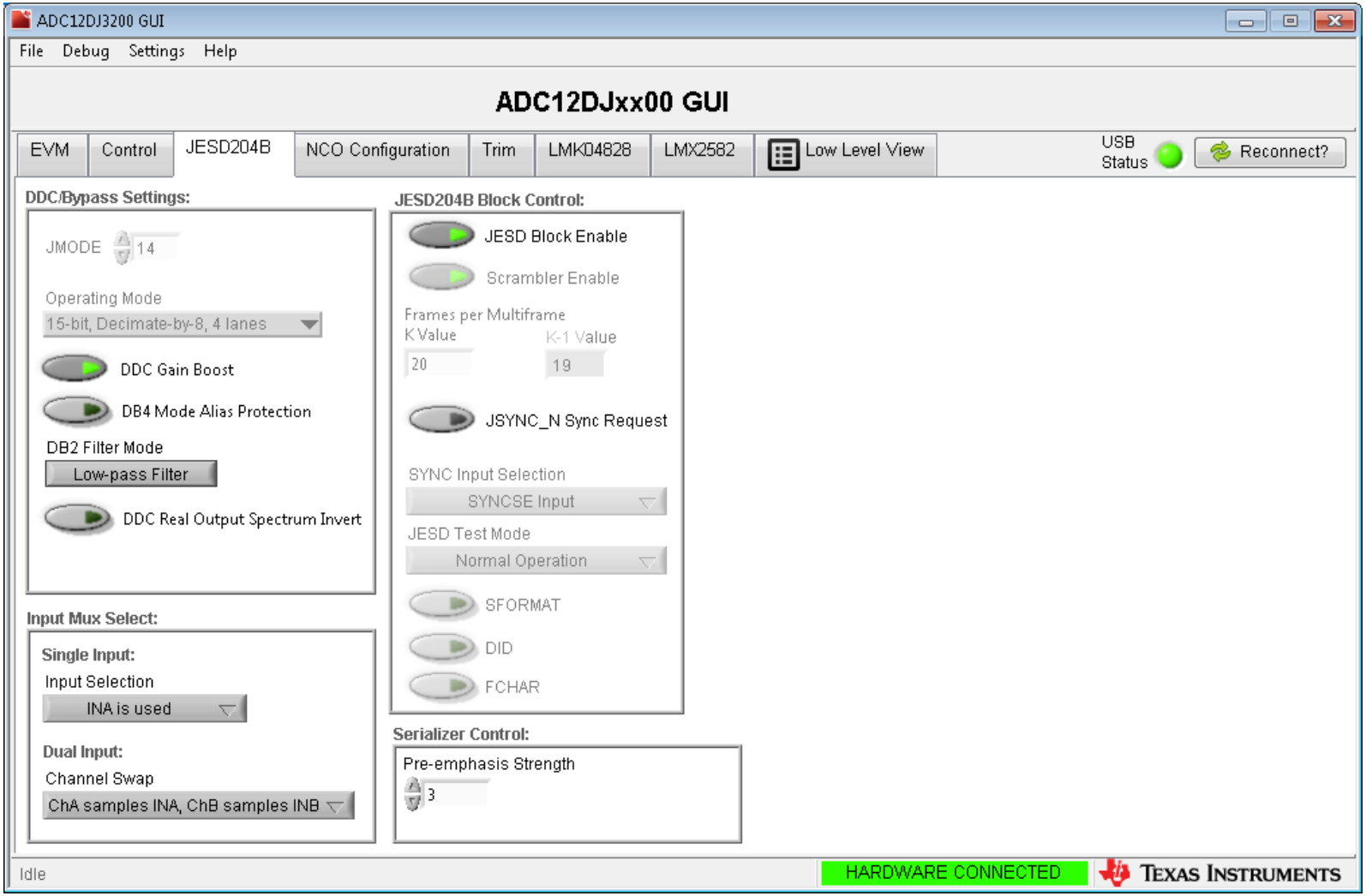
EVM Setup Used

- Decimation Modes (complex output) are limited to the dual input modes of the ADC
- Maximum Sample Rate is 3200 MSPS (for ADC12DJ3200)
- Example uses JMODE14 – Decimate by 8
- Fin = 2482.77MHz in VINA – DDC A is used by default on VINA
- Setup steps:
  - Clock Source – On-board
  - On-board Fs Selection – Fs = 3200 Msps
  - Decimation and Serial Data Mode = JMODE14
  - Clock Program Clocks and ADC

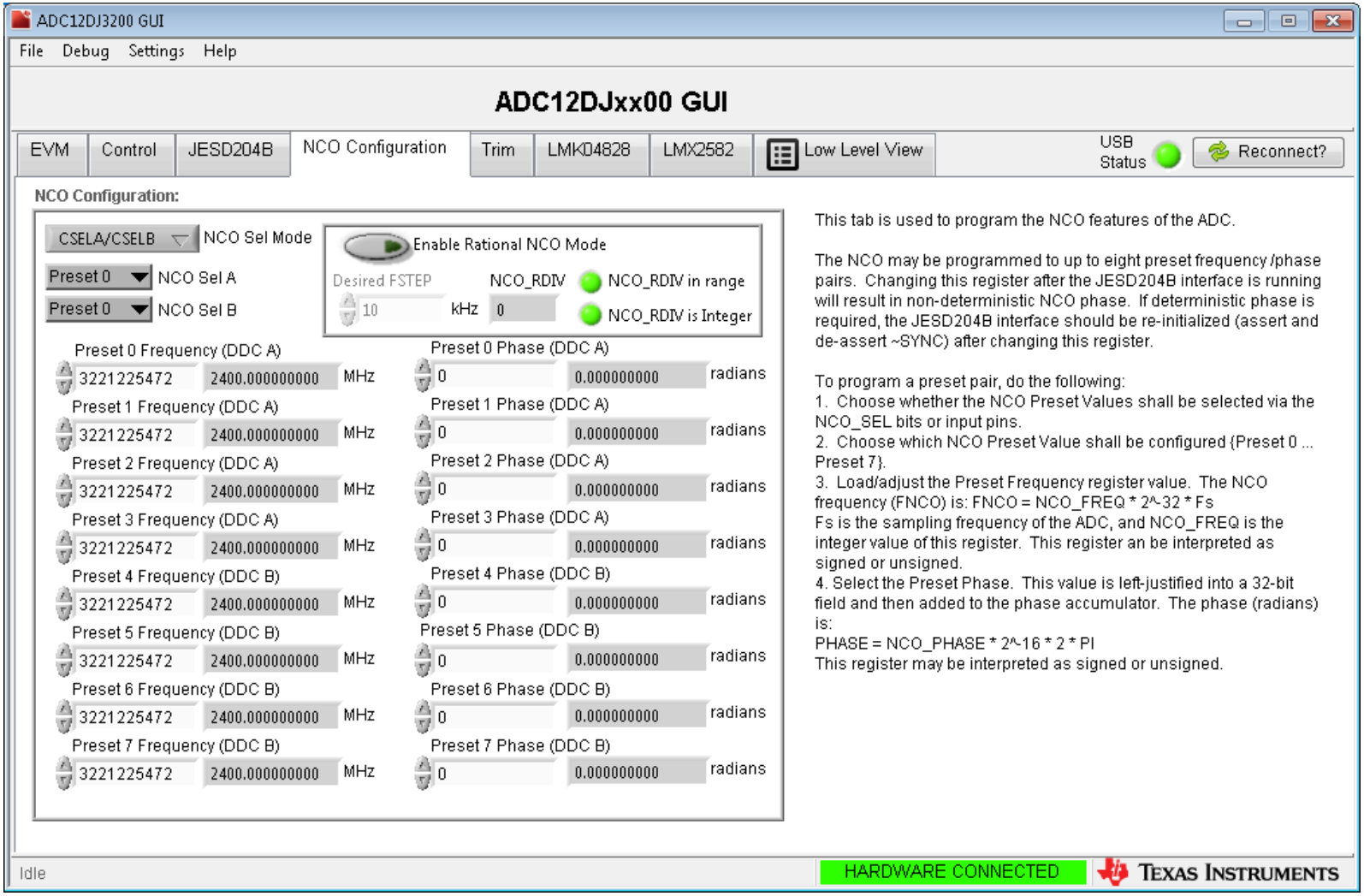
ADC12DJ3200EVM Setup



Enable DDC Gain Boost – Click button

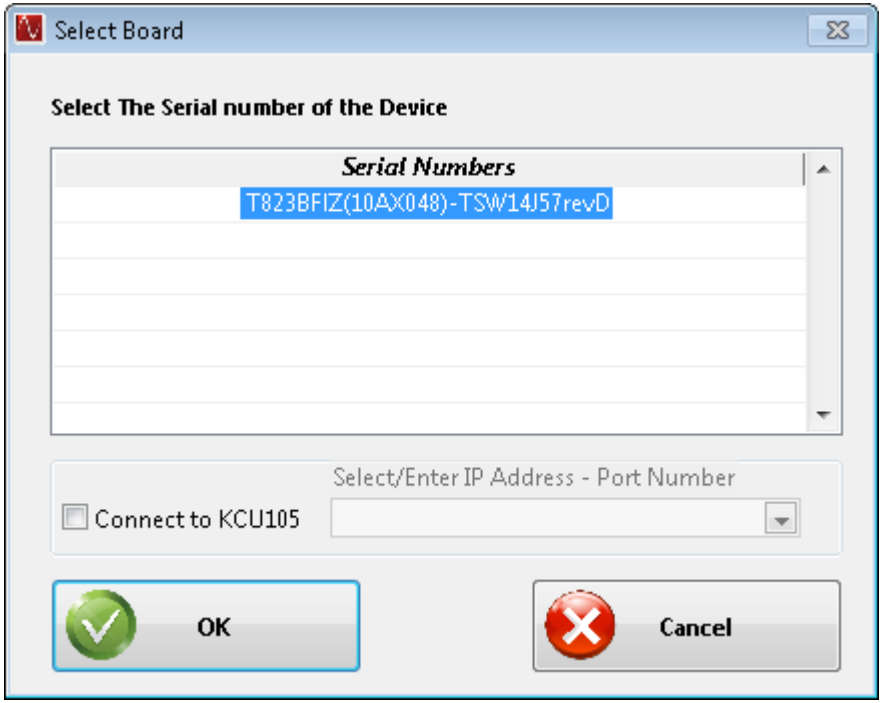


Default NCO Frequency is ¾Fs = 2400MHz

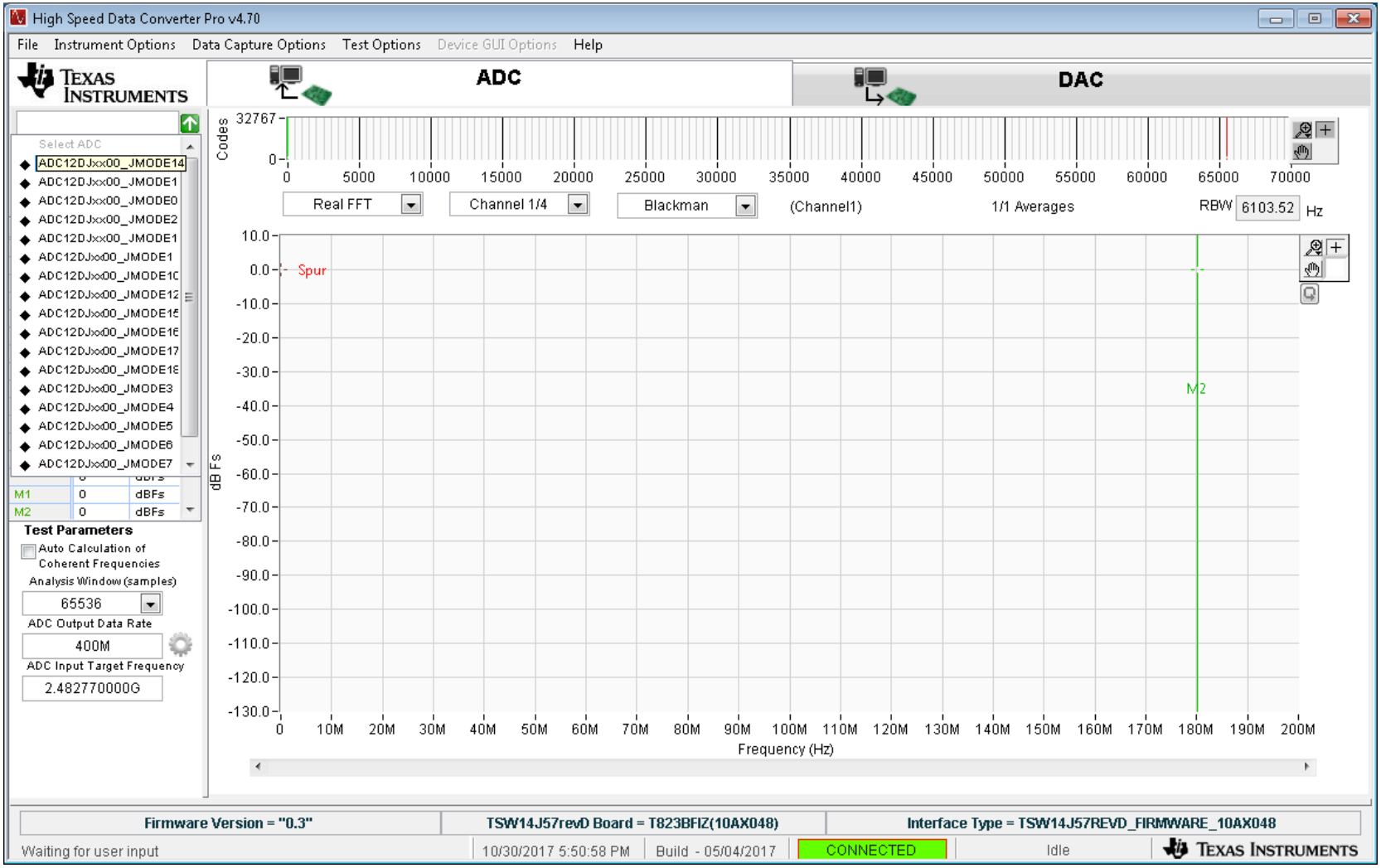


High Speed Data Converter Pro Setup

- Launch High Speed Data Converter Pro GUI
- Select board in popup and click OK
- Acknowledge No Firmware or current line-rate settings popup
- Select ADC12DJxx00_JMODE14 in upper left pull-down (see next slide)
- Then click Gear symbol next to ADC Output Data Rate entry field
- Click OK to Download Firmware when prompted

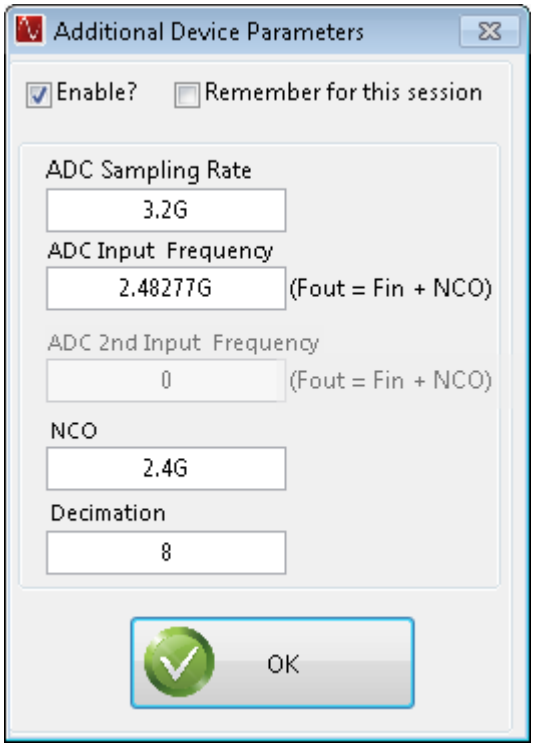


High Speed Data Converter Pro Setup

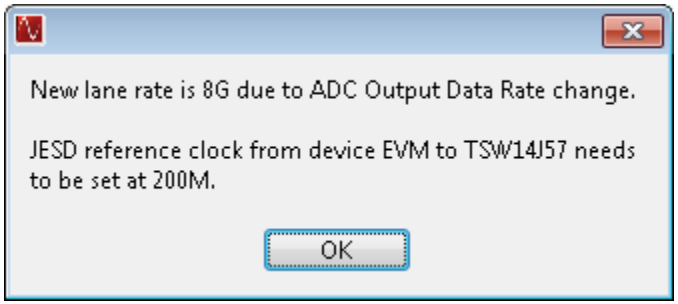


HSDC Pro – Decimation Mode Configuration

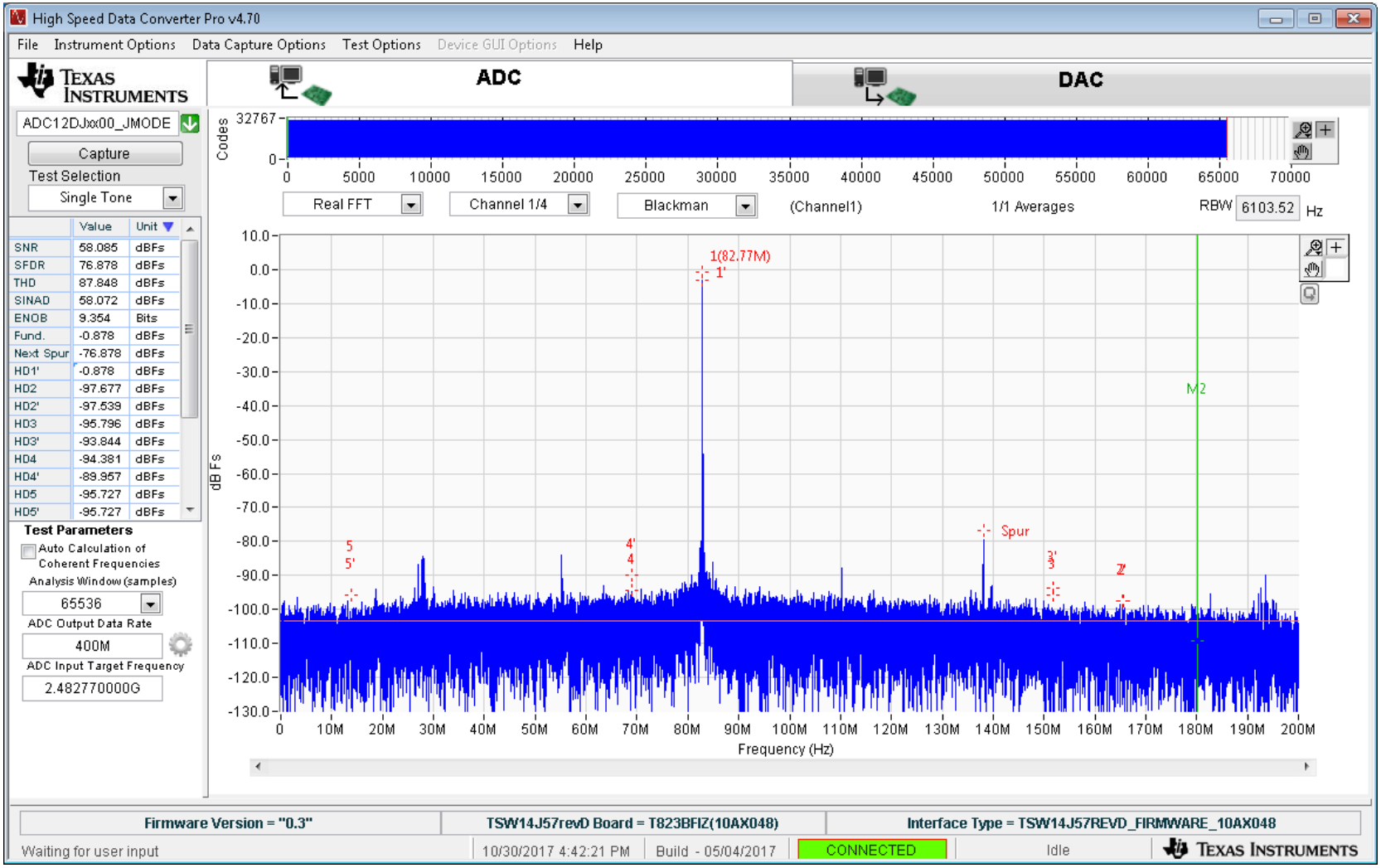
- Click on Gear symbol to right of ADC Output Data Rate box
- Enter ADC sample rate = 3.2G
- ADC Input Frequency = 2482.77M
- NCO Frequency = 2.4G
- Decimation = 8



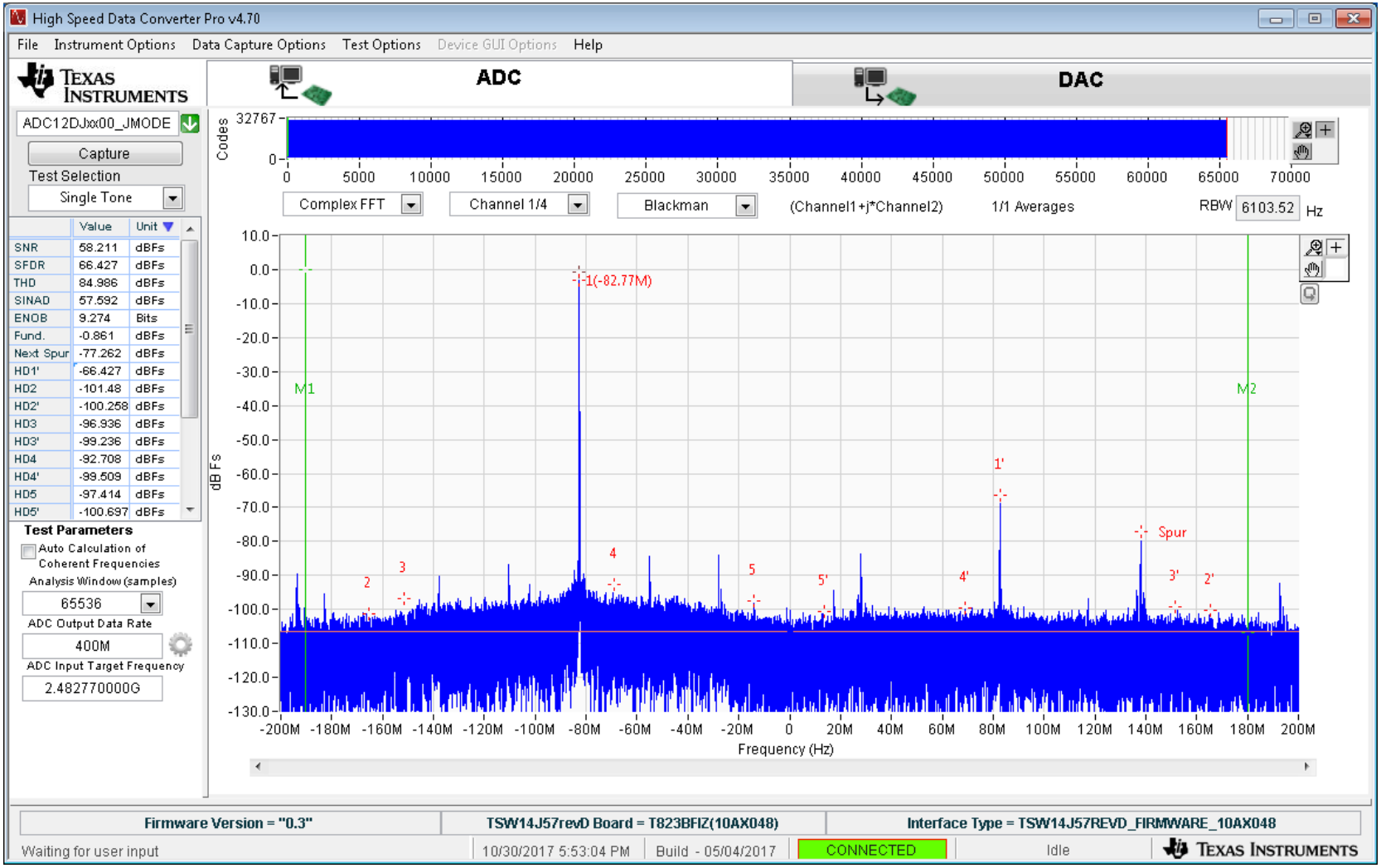
Lane Rate Confirmation Popup



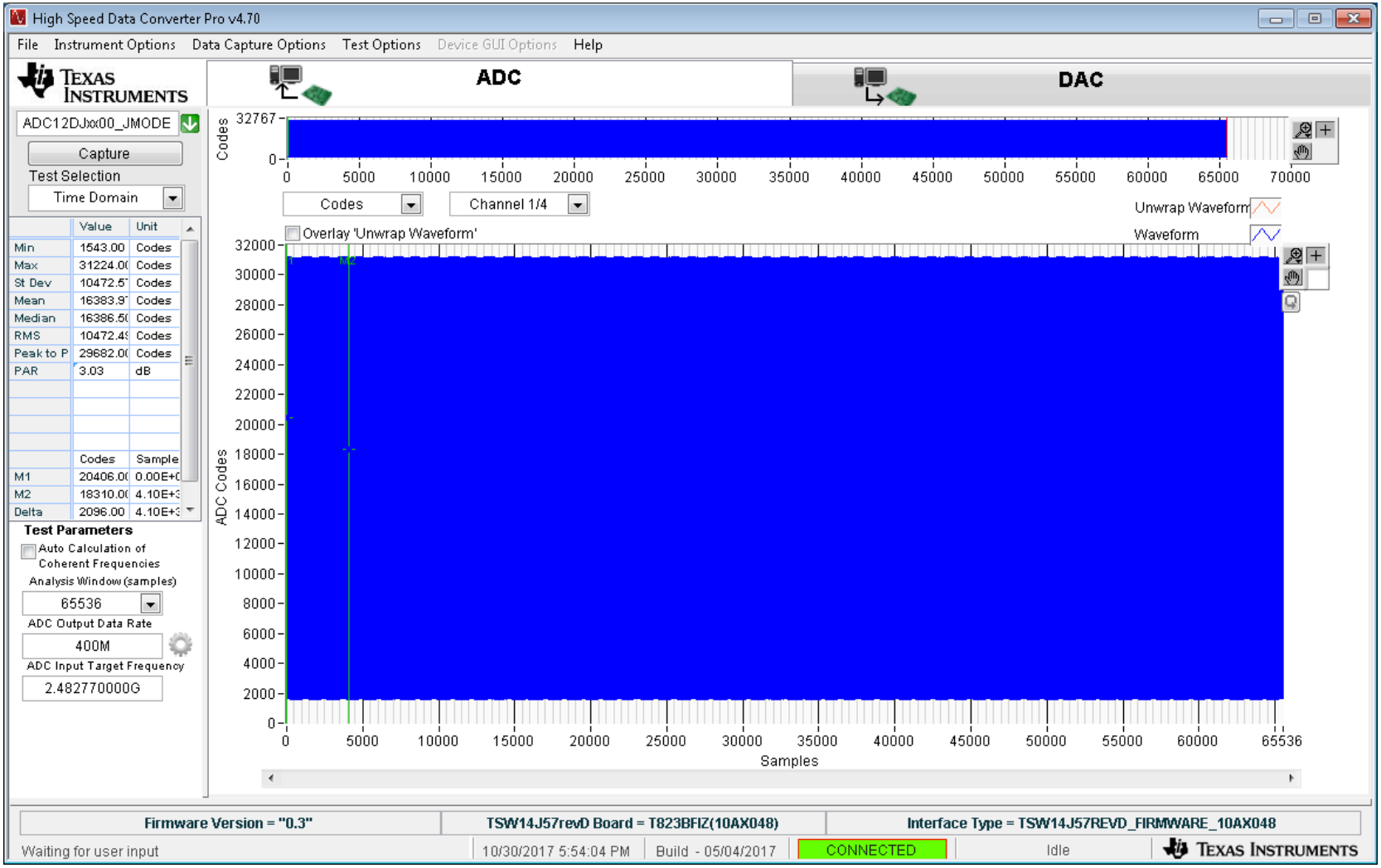
Click Capture – Initial Display is Real FFT



Change Display to Complex FFT



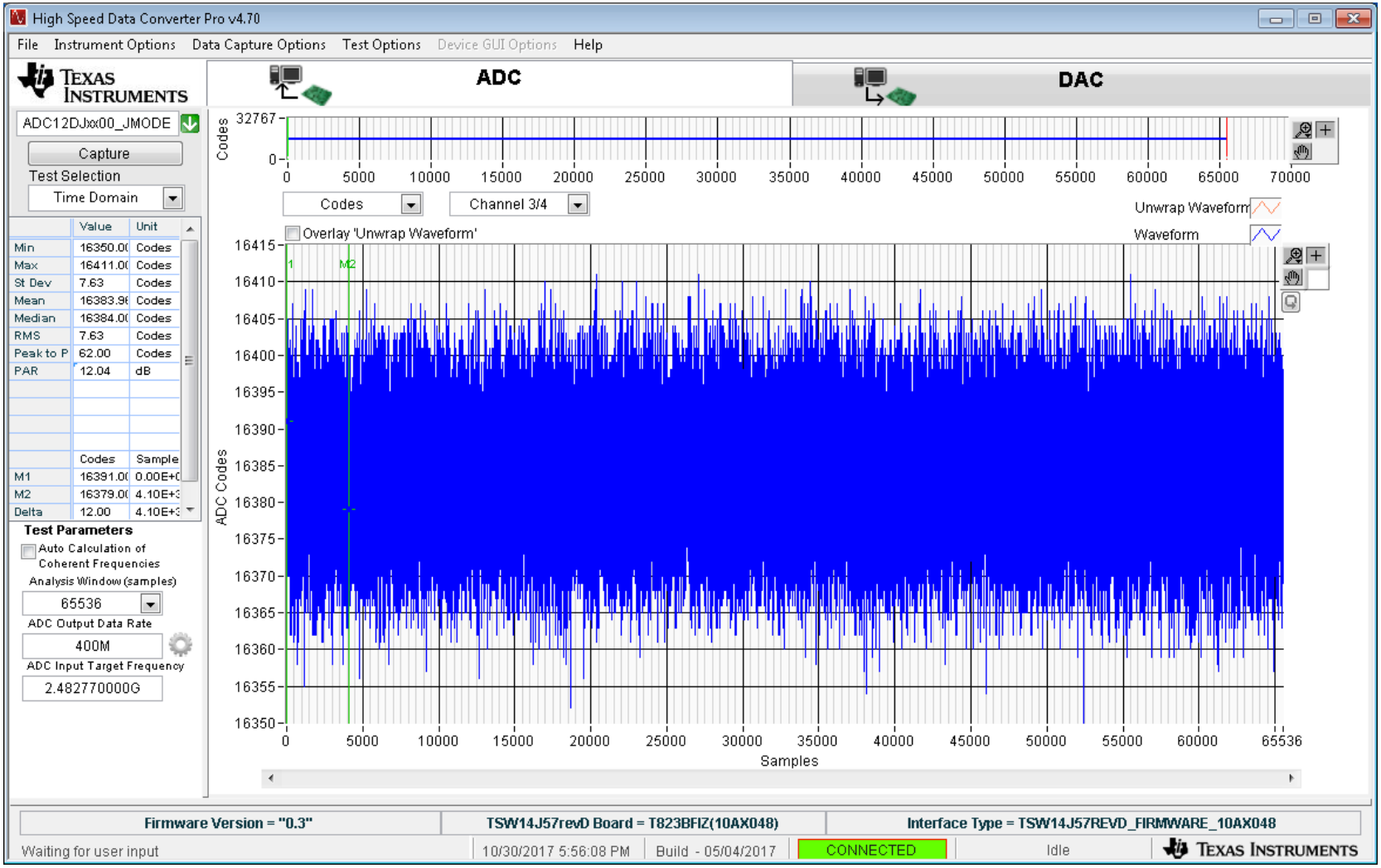
Change Test Selection to Time Domain



Select Desired Channel of Data

- Note Channel 1 of 4 is displayed by default
- Data in this mode is displayed from 0 to 32768
- Change this pull-down to show other channels of time domain data
- Note Channel 1 and 2 have I and Q data for DDCA
- No signal applied to VINB, so Channel 3 (I) and 4 (Q) for DDCB have only noise

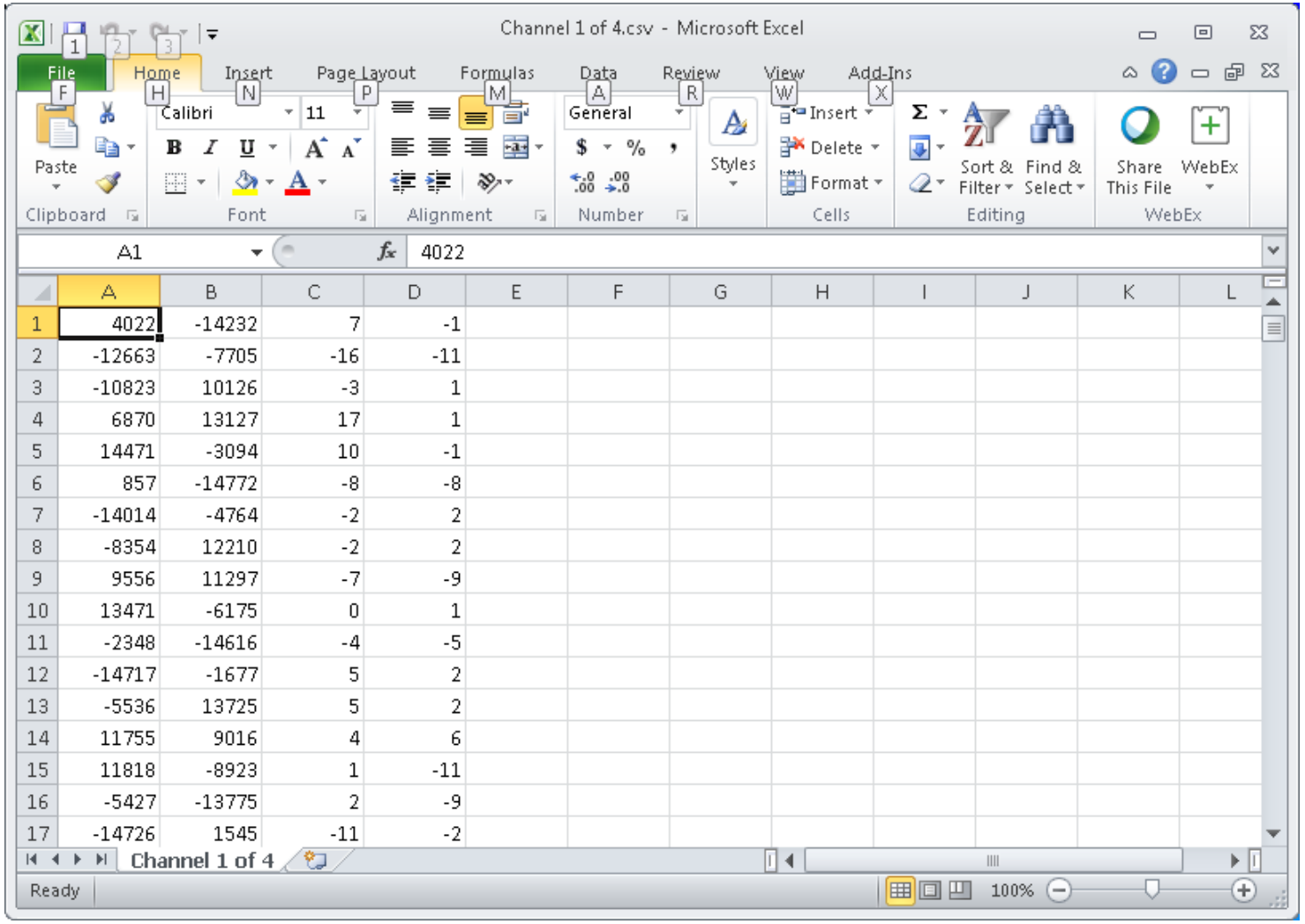
Channel 3 data



Export Channel Data

- Select Channel 1/4
- Click File>Save I32 Codes as CSV File
- Select location and file name and click OK
- Note exported data is signed

Channel 1+2+3+4 Data



	A	B	C	D	E	F	G	H	I	J	K	L
1	4022	-14232	7	-1								
2	-12663	-7705	-16	-11								
3	-10823	10126	-3	1								
4	6870	13127	17	1								
5	14471	-3094	10	-1								
6	857	-14772	-8	-8								
7	-14014	-4764	-2	2								
8	-8354	12210	-2	2								
9	9556	11297	-7	-9								
10	13471	-6175	0	1								
11	-2348	-14616	-4	-5								
12	-14717	-1677	5	2								
13	-5536	13725	5	2								
14	11755	9016	4	6								
15	11818	-8923	1	-11								
16	-5427	-13775	2	-9								
17	-14726	1545	-11	-2								