

ADS5263EVM and
TSW1250EVM
Firmware Ver= 2.02
Test Results

Texas Instruments MBU

Setup Register

ADS 5263 GUI

Read Me

Top Level/Pin Ctl | Interface/Test Pattern | Dig Sig Proc | Dig Sig Proc FILTER | I/O Mapping | Debug

Self-Reset Off

Reg_Read Disable

STAND_BY Normal ADC Operation

GLOBAL_PDN Normal ADC operation

CONFIG PD PIN PDN pin works as standby

Select 14Bit ADC Mode Disable

16B_14B ADC Operation Enable 16-bit ADC operation

LVDS Current for Data Buff 3.5mA

LVDS Current for ADCLK Buff 3.5mA

LVDS Current for LCLK Buff 3.5mA

DEVICE PIN CONTROL

ADC_RESET

PDN

ENABLE SERIALIZATION

16x Serialization Enable

14x Serialization Disable

PAD two 0s Disable

MSB_LSB MSB First

DATA FORMAT Offset Binary

2-WIRE 0.5X FRAME 0.5x frame clock

ENABLE LVDS TERM

Internal LVDS Termination for Data Buff No Termination

Internal LVDS Termination for ADCLK Buff No Termination

Internal LVDS Termination for LCLK Buff No Termination

SAVE COMMAND SEQUENCE

Add addr/data to saving list

Save saving list to a file

COMMAND SEQUENCE PLAY BACK

Commands play back

Saving List

Index	Addr	Data

Clear Saving List

address × 25 **Data** × 40 **Last Data** × 0

Digital Waveform Graph - Write

SCLK - [Clock waveform]

SDATA - [Data waveform]

SEN - [Strobe waveform]

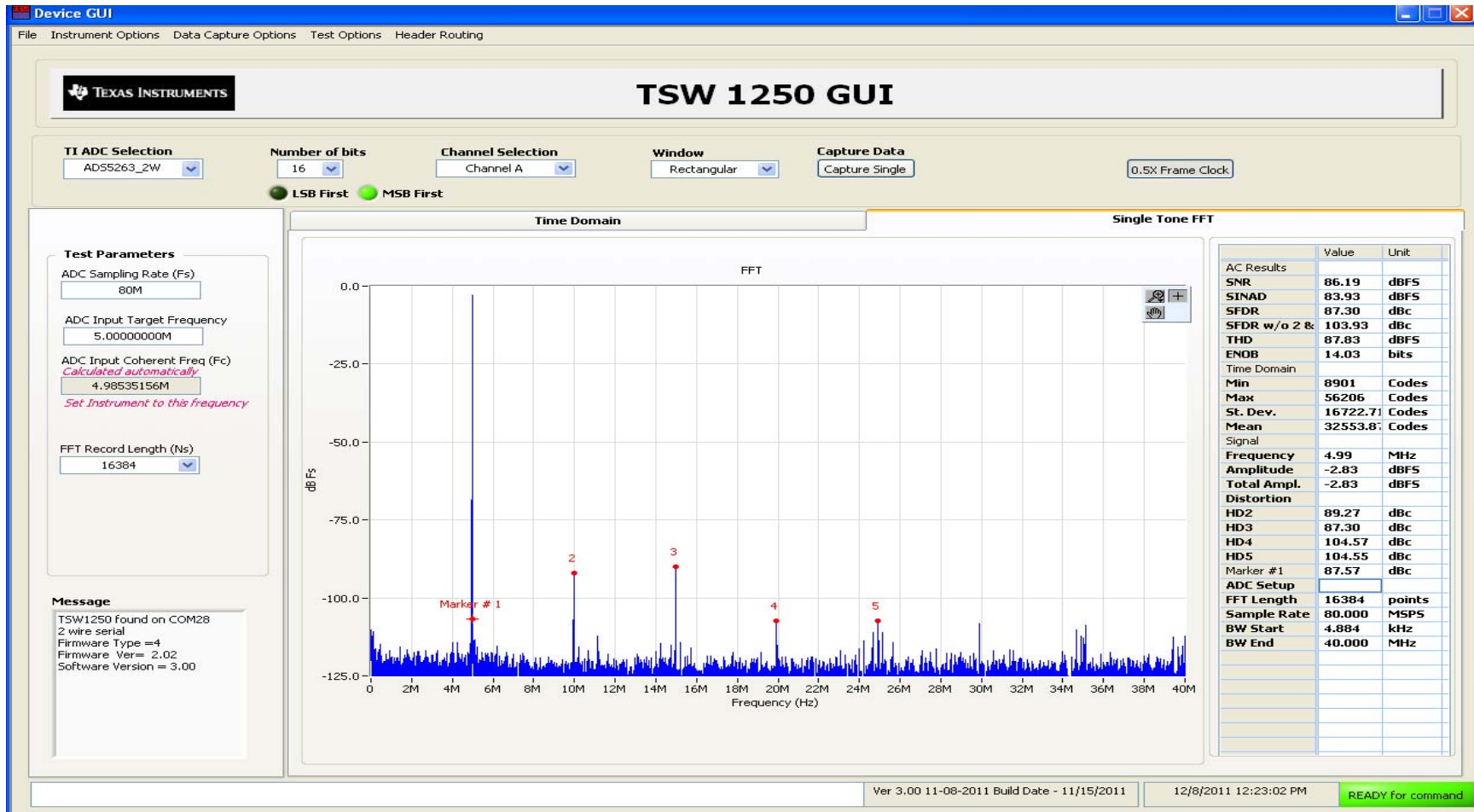
Version 2.0 - 5/10/2010 Build date - 05/09/2011 12/8/2011 12:19:39 PM **READY**

Setup Register

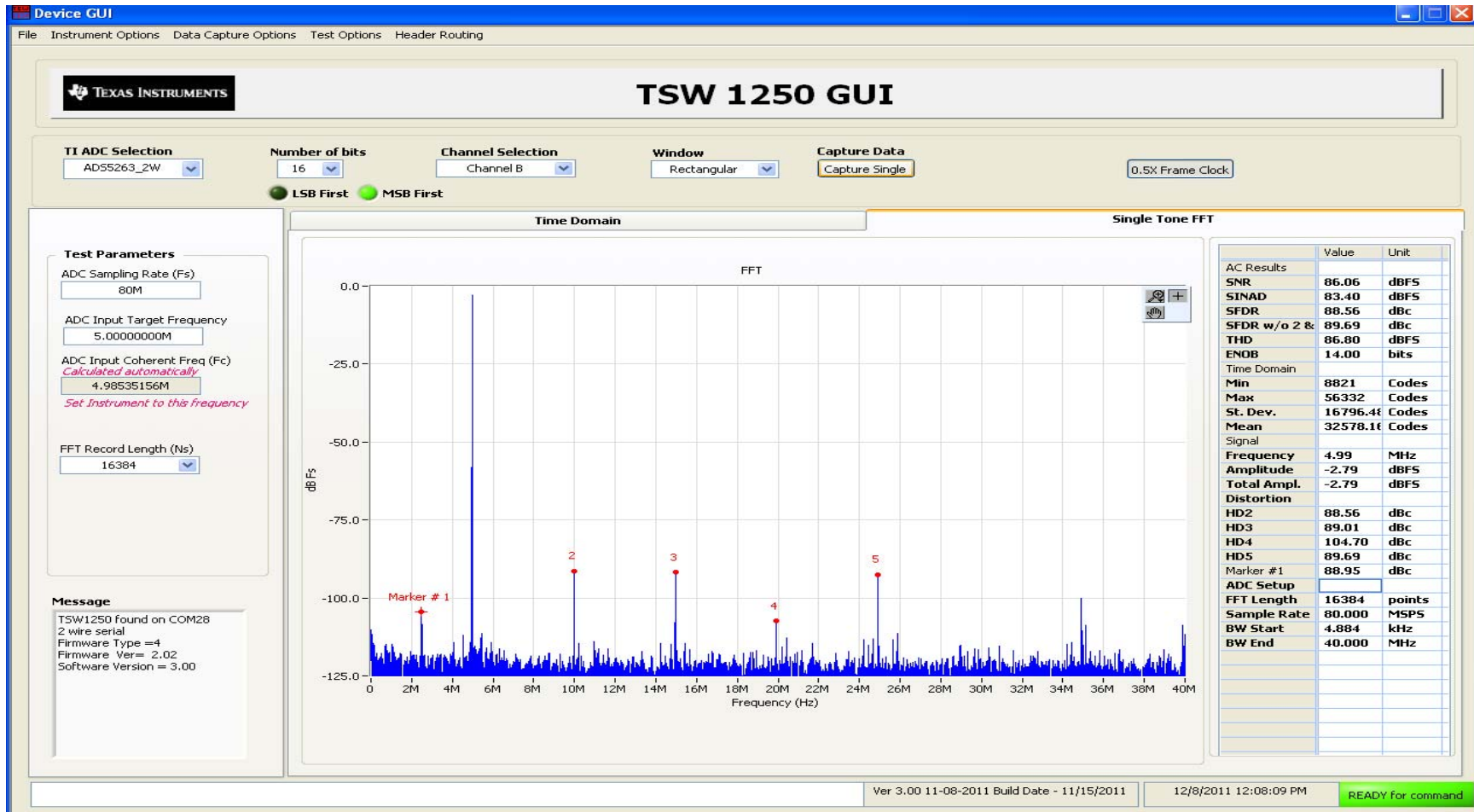
The screenshot displays the ADS 5263 GUI with the following components:

- Custom Write Register:** Contains a "Write Address" field with the value 42, a "Write Data" field with the value 8000, and a "Write Custom Register" button. These three elements are circled in red.
- Custom Read Register:** Contains a "Read Address" field with the value 0, a "Read Data" field with the value 0, and a "Read Custom Register" button.
- SAVE COMMAND SEQUENCE:** Includes buttons for "Add addr/data to saving list" and "Save saving list to a file", both with green status indicators.
- COMMAND SEQUENCE PLAY BACK:** Includes a "Commands play back" button.
- Saving List:** A table with columns "Index", "Addr", and "Data". A "Clear Saving List" button is located above the table.
- address Data Last Data:** A summary section showing "address" as 25, "Data" as 40, and "Last Data" as 0.
- Digital Waveform Graph - Write:** A graph showing SCLK, SDATA, and SEN signals. SCLK is a high-frequency square wave, SDATA shows data bits (0, 0, 0, 0), and SEN is a single pulse.
- Error Out:** A section with "status" (checked), "code" (0), and "source" fields.
- Footer:** Displays "Version 2.0 - 5/10/2010", "Build date - 05/09/2011", "12/8/2011 12:20:23 PM", and a green "READY" indicator.

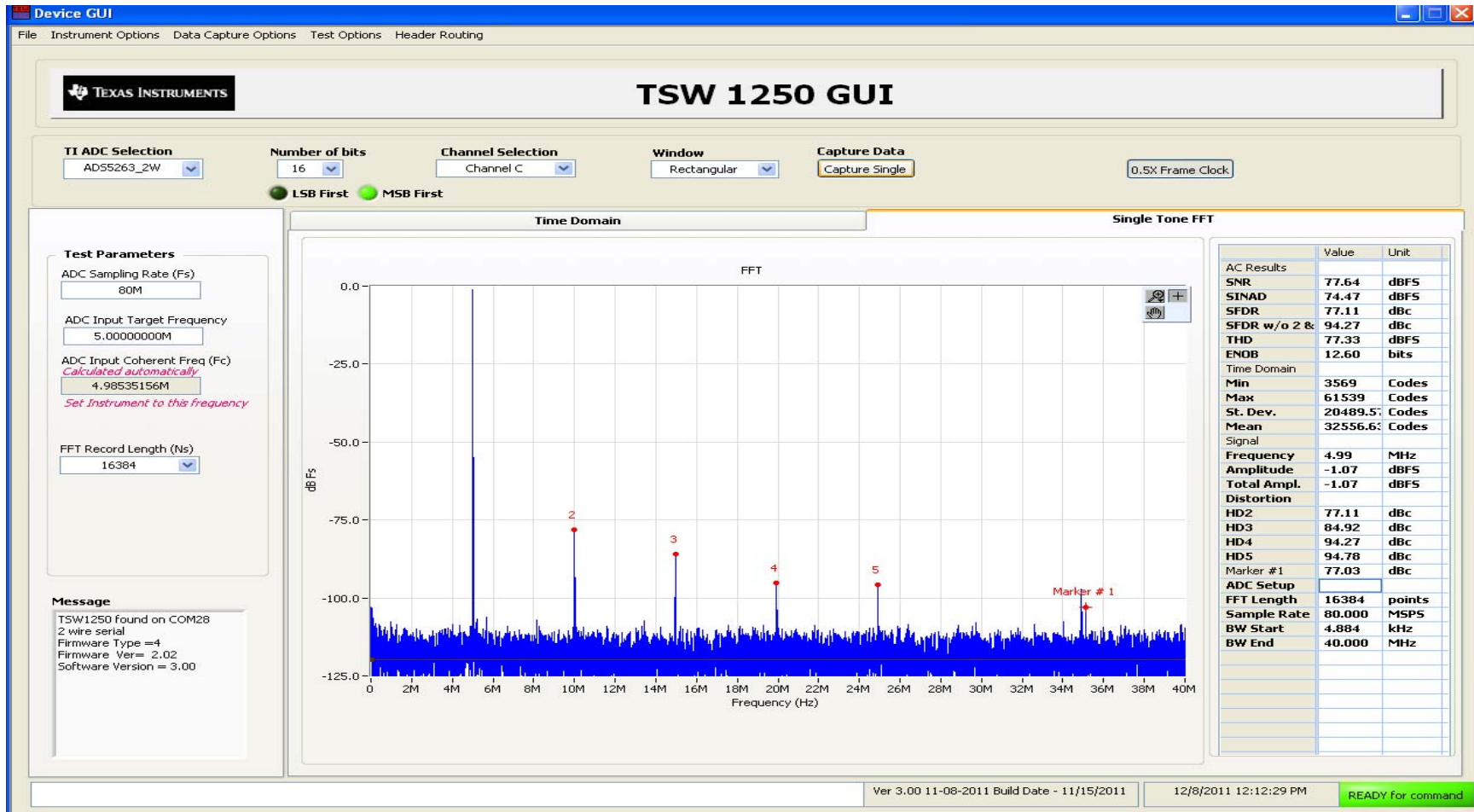
Typical ChA Result



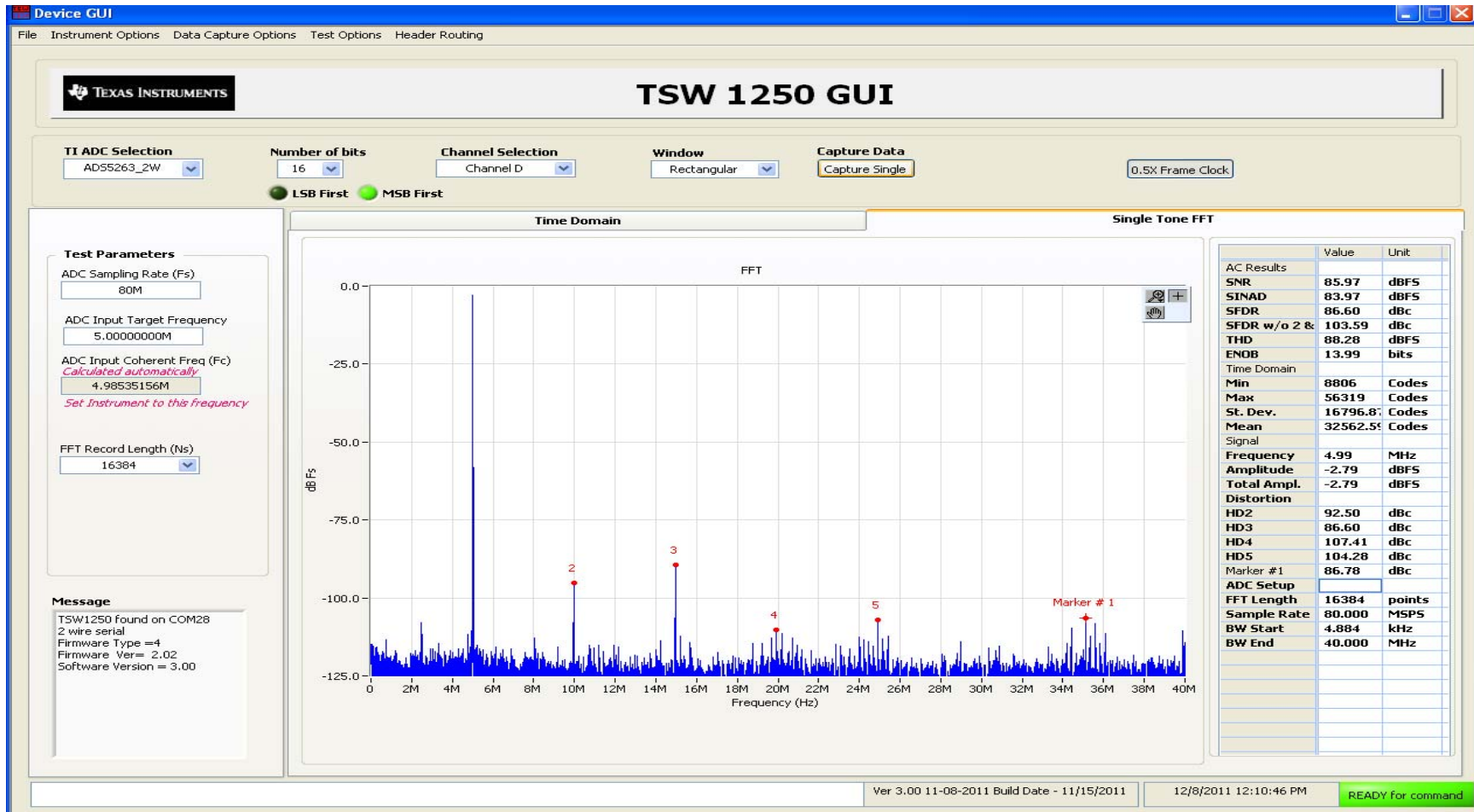
Typical ChB Result



Typical ChC Result



Typical ChD Result



Setup for RAMP Test

The screenshot displays the ADS 5263 GUI interface. The window title is "ADS5263.lvlib:ADS5263.vi". The main title is "ADS 5263 GUI". The interface includes a menu bar (File, Edit, Operate, Tools, Window, Help) and a toolbar with buttons for "Top Level/Pin Ctl", "Interface/Test Pattern", "Dig Sig Proc", "Dig Sig Proc FILTER", "I/O Mapping", and "Debug".

Key features and settings visible:

- ENABLE WORD WISE CONTROL:**
- WORD WISE CH1-4:** Each has a "BYTE-WISE" button.
- DUAL CUSTOM PATTERN:** Disabled
- SINGLE CUSTOM PATTERN:** Disabled
- CUSTOM PATTERN A DATA 0-15:** All checkboxes are unchecked.
- CUSTOM PATTERN B DATA 0-15:** All checkboxes are unchecked.
- RAMP TEST PATTERN:** (highlighted with a red circle)
- SYNC PATTERN:**
- DESKEW PATTERN:**

On the right side, there are sections for "SAVE COMMAND SEQUENCE" (with "Add addr/data to saving list" and "Save saving list to a file" buttons), "COMMAND SEQUENCE PLAY BACK" (with "Commands play back" button), and a "Saving List" table with columns "Index", "Addr", and "Data". Below the table are input fields for "address" (value 25), "Data" (value 40), and "Last Data" (value 0). At the bottom right, there is a "Digital Waveform Graph - Write" showing waveforms for SCLK, SDATA, and SEN.

The status bar at the bottom shows: "Version 2.0 - 5/10/2010", "Build date - 05/09/2011", "12/8/2011 12:18:54 PM", and a green "READY" indicator.

ChA

Device GUI

File Instrument Options Data Capture Options Test Options Header Routing

TEXAS INSTRUMENTS

TSW 1250 GUI

TI ADC Selection: ADS5263_2W | Number of bits: 16 | Channel Selection: Channel A | Window: Rectangular | Capture Data: Capture Single | 0.5X Frame Clock

LSB First | MSB First

Test Parameters

ADC Sampling Rate (Fs): 80M

ADC Input Target Frequency: 5.00000000M

ADC Input Coherent Freq (Fc): 4.99633789M
Calculated automatically
Set Instrument to this frequency

FFT Record Length (Ns): 65536

Overlay 'Unwrap Waveform':

Time Domain

Single Tone FFT

Time Domain	Value	Unit
Min	0	Codes
Max	65535	Codes
St Dev	18918.7	Codes
Mean	32767.5	Codes
Median	32767.5	Codes
RMS	37836.7	Codes

Ver 3.00 11-08-2011 Build Date - 11/15/2011 | 12/8/2011 12:16:44 PM | READY for command

ChB

Device GUI

File Instrument Options Data Capture Options Test Options Header Routing

TEXAS INSTRUMENTS

TSW 1250 GUI

TI ADC Selection: ADS5263_2W Number of bits: 16 Channel Selection: Channel B Window: Rectangular Capture Data: Capture Single 0.5X Frame Clock

LSB First MSB First

Test Parameters

ADC Sampling Rate (Fs): 80M

ADC Input Target Frequency: 5.00000000M

ADC Input Coherent Freq (Fc): *Calculated automatically*
4.99633789M
Set instrument to this frequency

FFT Record Length (Ns): 65536

Overlay 'Unwrap Waveform':

Time Domain

Single Tone FFT

Time Domain	Value	Unit
Min	0	Codes
Max	65535	Codes
St Dev	18918.7	Codes
Mean	32767.5	Codes
Median	32767.5	Codes
RMS	37836.7	Codes

Ver 3.00 11-08-2011 Build Date - 11/15/2011 12/8/2011 12:17:18 PM READY for command

ChC

Device GUI

File Instrument Options Data Capture Options Test Options Header Routing

TEXAS INSTRUMENTS

TSW 1250 GUI

TI ADC Selection: ADS5263_2W Number of bits: 16 Channel Selection: Channel C Window: Rectangular Capture Data: Capture Single 0.5X Frame Clock

LSB First MSB First

Test Parameters

ADC Sampling Rate (Fs): 80M

ADC Input Target Frequency: 5.00000000M

ADC Input Coherent Freq (Fc): *Calculated automatically*
4.99633789M
Set Instrument to this frequency

FFT Record Length (Ns): 65536

Overlay 'Unwrap Waveform':

Time Domain

Single Tone FFT

Time Domain	Value	Unit
Min	0	Codes
Max	65535	Codes
St Dev	18918.71	Codes
Mean	32767.50	Codes
Median	32767.50	Codes
RMS	37836.71	Codes

Ver 3.00 11-08-2011 Build Date - 11/15/2011 12/8/2011 12:17:42 PM READY for command

ChD

File Instrument Options Data Capture Options Test Options Header Routing

TSW 1250 GUI

TI ADC Selection: ADS5263_2W
Number of bits: 16
Channel Selection: Channel D
Window: Rectangular
Capture Data: Capture Single

LSB First MSB First

0.5X Frame Clock

Test Parameters

ADC Sampling Rate (Fs)
80M

ADC Input Target Frequency
5.00000000M

ADC Input Coherent Freq (Fc)
Calculated automatically.
4.99633789M
Set Instrument to this frequency

FFT Record Length (Ns)
65536

Overlay 'Unwrap Waveform'

Time Domain
Single Tone FFT

Time Domain
Unwrap Waveform
Waveform

Time Domain	Value	Unit
Min	0	Codes
Max	65535	Codes
St Dev	18918.71	Codes
Mean	32767.50	Codes
Median	32767.50	Codes
RMS	37836.71	Codes

Ver 3.00 11-08-2011 Build Date - 11/15/2011
12/8/2011 12:18:14 PM
READY for command