

# Using the Xtrinsic FXLS8471Q Command Line Interface Software

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## 1 Introduction

The Xtrinsic FXLS8471Q command line interface provides an easy way to communicate with FXLS8471Q using the FRDM-FXS-MULTI and the FRDM-FXS-MULTI-B sensor expansion boards plugged into the FRDM-KL25Z: Freescale Freedom development platform. Once the FRDM-KL25Z is programmed with the command-line interface firmware, the user can

- modify and read registers,
- view details of the operating mode of the device,
- stream data as signed counts or in signed units,
- and store/view data in on-board (on FRDM-KL25Z) flash

with a terminal program using a virtual serial port over USB.

## Contents

1	Introduction .....	1
1.1	Related Documentation .....	2
1.2	Hardware Assembly .....	2
2	Programming the FRDM-KL25Z .....	5
3	Setup of Terminal Program .....	5
4	List of Commands .....	6
4.1	Data Output Direction (OD) .....	7
4.2	Accelerometer Operating Mode (M) .....	8
4.3	Oversampling Mode (O) .....	8
4.4	Output Data Rate (RO) .....	9
4.5	Register Read (RR) .....	9
4.6	Register Write (RW) .....	11
4.7	Report Configuration (RF) .....	11
4.8	Display XYZ Data as Signed Counts (CN) .....	12
4.9	Display XYZ Data as Signed Counts, with HPF Enabled (CH) .....	13
4.10	Display XYZ Data in Signed Units (GN) .....	13
4.11	Display XYZ Data in Signed Units, with HPF Enabled (GH) .....	14
4.12	Stream XYZ Data by Polling (S) .....	15
4.13	Stream XYZ Data using Interrupts (I) .....	16
4.14	Stream XYZ Data via the FIFO Buffer (F) .....	17
4.15	Display Flash Data (FD) .....	19
4.16	Erase Flash (FE) .....	20

## 1.1 Related Documentation

The FXLS8471Q device features and operations are described in a variety of reference manuals, user guides, and application notes. To find the most-current versions of these documents:

1. Go to the Freescale homepage at:  
<http://www.freescale.com/>
2. In the Keyword search box at the top of the page, enter the device number FXLS8471Q.
3. In the Refine Your Result pane on the left, click on the Documentation link.

## 1.2 Hardware Assembly

This section explains assembly of the kit's hardware which is shown in [Figure 1](#).

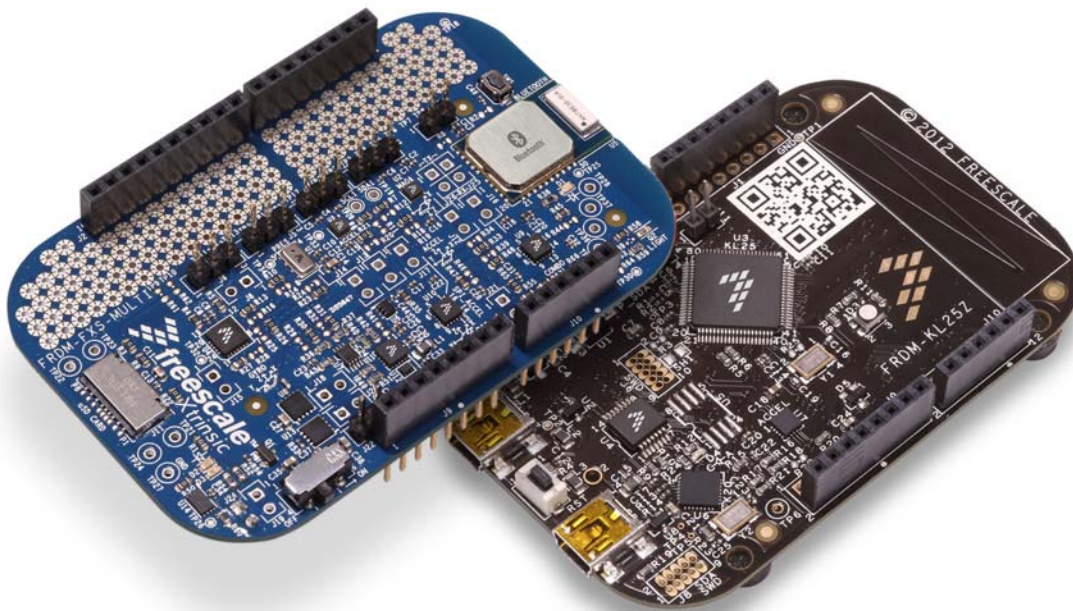
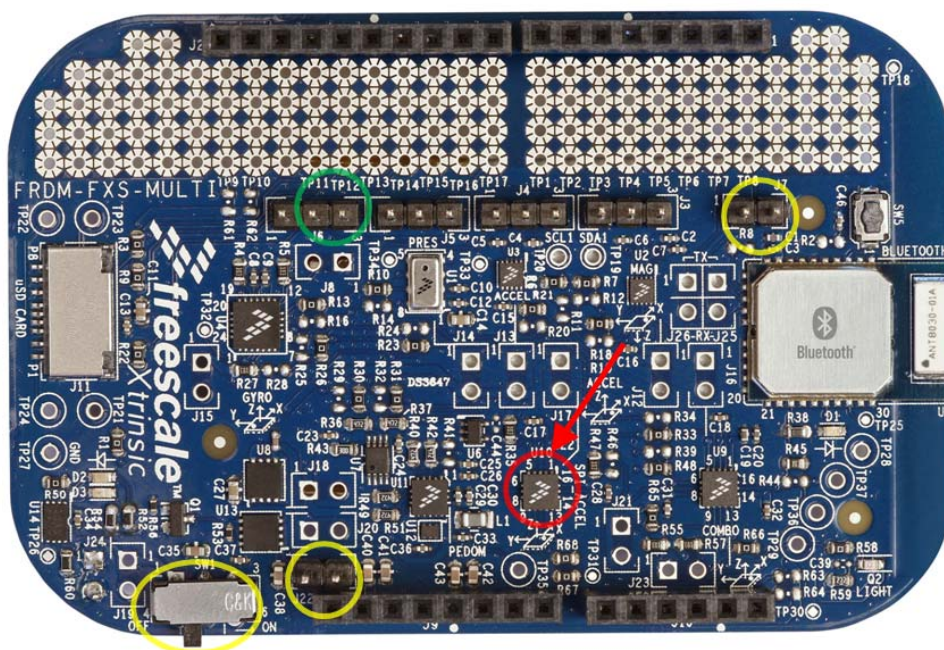


Figure 1. FRDM-FXS-MULTI-B and FRDM-KL25Z

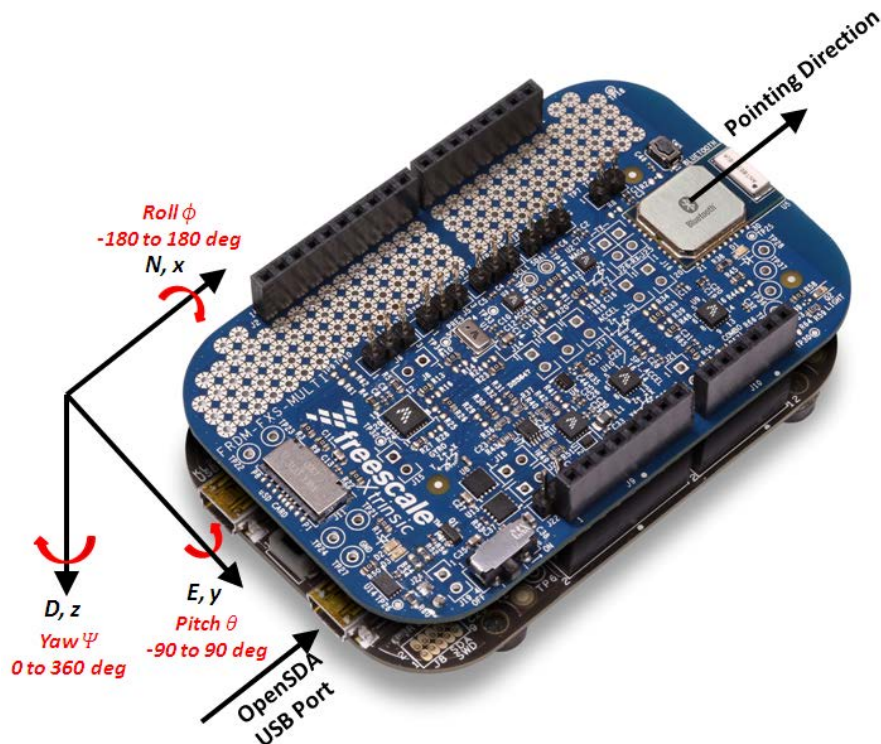
The Freescale Xtrinsic FXLS8471Q Accelerometer is located on the FRDM-FXS-MULTI(-B) as indicated by the red circle in [Figure 2](#).



**Figure 2. FRDM-FXS-MULTI-B top view**

To assemble the hardware:

1. Align the pins of the FRDM-FXS-MULTI(-B) and the headers of the FRDM-KL25Z so that the two boards mate properly.
2. Insert the FRDM-FXS-MULTI(-B) to the FRDM-KL25Z. When the board assembly is complete, the pointing direction is indicated by the black Pointing Direction arrow in [Figure 3](#).
3. Connect header J6 pins 2-3 together using a jumper. Refer to green circle in [Figure 2](#).



**Figure 3. Assembled Kit and NED Coordinate System**

4. If a hard-wired connection is desired, plug one end of the USB cable to the assembled boards (see [Figure 3](#)) and the other end to a spare USB port. Ensure OpenSDA Serial Port is recognized by the OS of your PC. See [Figure 4](#).
5. If a wireless connection is desired (FRDM-FSX-MULTI-B only), connect together header J7, pins 1-2 and header J22, pins 1-2 using a jumper and turn SW1 to ON position to use battery power. Refer to yellow circles in [Figure 2](#).

#### **NOTE**

The Bluetooth module on-board needs to be paired with the host PC in order to use Serial Port Profile (SPP) for communications. Once paired, the blue LED D1, next to the Bluetooth module, will be lit. See [Figure 2](#).

#### **NOTE**

Communication with the kit will fail if Bluetooth module is enabled (using J7) while, at the same time, a COM port is open using a wired connection.



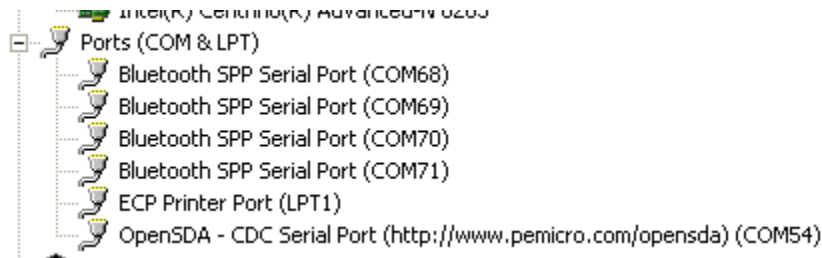


Figure 4. Example List of Ports in Device Manager

## 2 Programming the FRDM-KL25Z

FRDM-KL25Z features a simple way to program S-record (SREC) files using OpenSDA protocol. OpenSDA is an open-standard serial and debug adapter, bridging serial and debug communications between a USB host and an embedded target processor. OpenSDA software includes a flash-resident USB mass-storage device (MSD) bootloader and a collection of OpenSDA applications. FRDM-KL25Z includes a MSD flash programmer OpenSDA application pre-installed.

The MSD flash programmer is a composite USB application that provides a virtual serial port and an easy and convenient way to program applications into the KL25Z MCU. It emulates a FAT16 file system, appearing as a removable drive in the host file system with a volume label of FRDM-KL25Z. Raw binary and SREC files that are copied to the drive are programmed directly into the flash of the KL25Z and executed automatically.

To learn more please go to <http://www.freescale.com/> and search keyword "FRDM-KL25Z Quick Start Package."

Once you are able to see the FRDM-KL25Z as a volume on your PC, simply drag and drop the file named "fxls8471q\_CLI\_RELDATE.srec" which was included in the zip file named AN4694SW.zip into this drive. Once the SREC file is uploaded it should automatically start running.

## 3 Setup of Terminal Program

Once FRDM-KL25Z is programmed, start a terminal program with the following settings:

- Baud: 115200 bps
- Bits: 8
- Parity: None
- Stop Bits: 1
- Hardware Flow Control: None

The specific COM port to be used may be determined via the Device Manager feature of Windows. Please refer to [Figure 4](#).

Once the terminal program is set up as specified, press any key; this will result in the displaying of the program header which indicates

- the compile date and time of the firmware image,
- detected WHOAMI register value of FXLS8471Q on-board, and
- the details of device configuration,
- followed by the command prompt.

Pressing any key after startup of the program will generate an output similar to [Example 1](#).

---

#### Example 1. Initial Output of the Command Line Interface Software

---

```
** Freescale Semiconductor **
** FXLS8471Q Demo          **
**      using the FRDM-KL25Z **
**                          **
** Apr 29 2013    15:10:35 **
```

```
FXLS8471Q : WhoAmI = 0x6A
Data Output Direction = Serial Port,
Operating Mode = ACTIVE,
ODR = 200Hz,
ASLP ODR = 6.25Hz,
OSR = Normal,
HP = 8Hz, Filter OFF,
FSR = 2g
```

```
FXLS8471Q>
```

---

## 4 List of Commands

A list of commands can be viewed by pressing the ? key followed by the Enter key. Output to this command outlines the details of the rest of the commands available (format and accepted parameters). The commands are not case-sensitive.

---

#### Example 2. List of Commands

---

```
FXLS8471Q> ?
```

```
List of FXLS8471Q commands:
```

```
OD n      : Data Output Direction 1=Serial Port; 2=MCU Flash
Mn        : Mode 1=Standby; 2=2g; 4=4g; 8=8g
On        : Oversampling 0=Normal; 1=LNLP; 2=HighRes; 3=LP
RO n      : ODR Hz 0=800; 1=400; 2=200; 3=100; 4=50; 5=12.5; 6=6.25; 7=1.56
RR xx     : Register xx Read
RW xx=nn  : Register xx Write value nn
RF        : Report Configuration Specifics
CN        : XYZ data as Signed Counts
CH        : XYZ data as Signed Counts, with Accel HP Filter enabled
```

```
GN      : XYZ data in Signed Units
GH      : XYZ data in Signed Units, with Accel HP Filter enabled
S aa    : Stream XYZ:
I aa n  : Stream XYZ using Interrupts
        : n: 1=INT1; 2=INT2
F aa ww : Stream XYZ using FIFO
        : aa: CN, CH, GN or GH as explained above
        : ww: Watermark= 1 to 31
FD      : Display Flash Data
FE      : Erase Flash
```

```
FXLS8471Q>
```

---

## 4.1 Data Output Direction (OD)

Sets the destination of streamed data obtained from the device using 'S', 'T' and 'F' commands (See [Sections 4.12](#), [4.13](#), and [4.14](#) respectively).

### Format

"OD<space>n<ENTER>"

### Input Parameter(s)

n: '1' will direct output to serial port. '2' will direct the output to FLASH.

### NOTE

FLASH is a section of the programmable non-volatile memory present in Kinetis MKL25Z128VLK4 which is populated on FRDM-KL25Z, and amounts to about 96 Kbytes.

### Output

Current device configuration details will be displayed.

#### Example 3. Data Output direction

---

```
FXLS8471Q> OD 2
```

```
Data Output Direction = MCU Flash,
Operating Mode = ACTIVE,
ODR = 200Hz,
ASLP ODR = 6.25Hz,
OSR = Normal,
HP = 8Hz, Filter OFF,
FSR = 2g
```

```
FXLS8471Q>
```

---

## 4.2 Accelerometer Operating Mode (M)

Modifies the full-scale operating range of the device in active mode or configures the device for standby mode.

### Format

"Mn<ENTER>"

### Input Parameter(s)

n: '1' puts the device in standby mode, '2' in 2-g active mode, '4' in 4-g active mode and '8' in 8-g active mode.

### Output

Current device configuration details will be displayed.

---

#### Example 4. Accelerometer Operating Mode

---

```
FXLS8471Q> M8
```

```
Data Output Direction = MCU Flash,  
Operating Mode = ACTIVE,  
ODR = 200Hz,  
ASLP ODR = 6.25Hz,  
OSR = Normal,  
HP = 8Hz, Filter OFF,  
FSR = 8g
```

```
FXLS8471Q>
```

---

## 4.3 Oversampling Mode (O)

Modifies the oversampling ratio (OSR) of the output data.

### Format

"On<ENTER>"

### Input Parameter(s)

n: '0' sets OSR to normal, '1' to low noise, low power, '2' to high resolution, '3' to low power.

### Output

Current device configuration details will be displayed.

---

#### Example 5. Oversampling Mode

---

```
FXLS8471Q> O3
```

```
Data Output Direction = MCU Flash,  
Operating Mode = ACTIVE,  
ODR = 200Hz,
```



```
ASLP ODR = 6.25Hz,  
OSR = Low Power,  
HP = 4Hz, Filter OFF,  
FSR = 8g
```

```
FXLS8471Q>
```

---

## 4.4 Output Data Rate (RO)

Modifies the output data rate (ODR) of the device.

### Format

"RO<space>*n*<ENTER>"

### Input Parameter(s)

*n*: '0' sets ODR to 800 Hz, '1' to 400 Hz, '2' to 200 Hz, '3' to 100 Hz, '4' to 50 Hz, '5' to 12.5 Hz, '6' to 6.25 Hz, '7' to 1.56 Hz.

### Output

Current device configuration details will be displayed.

#### Example 6. Output Data Rate

---

```
FXLS8471Q> RO 4
```

```
Data Output Direction = MCU Flash,  
Operating Mode = ACTIVE,  
ODR = 50Hz,  
ASLP ODR = 6.25Hz,  
OSR = Low Power,  
HP = 1Hz, Filter OFF,  
FSR = 8g
```

```
FXLS8471Q>
```

---

## 4.5 Register Read (RR)

Simply reads register contents.

### Format

"RR<space>*xx*<ENTER>" or "RR<ENTER>"

### Input Parameter(s)

*xx*: two ASCII characters representing a 1-byte register address as hexadecimal.

### Output

Content of the register specified. If no register is specified, all register contents will be displayed.

---

### Example 7. Register Read: Read WHOAMI Register

---

```
FXLS8471Q> RR 0D = C7
```

```
FXLS8471Q>
```

---

---

### Example 8. Register Read: Read All Registers

---

```
FXLS8471Q> RR  
Read All Registers
```

```
00 = FF 00 38 FF
```

```
04 = E0 10 40 00
```

```
08 = 00 00 00 01
```

```
0C = 01 6A 02 00
```

```
10 = 00 80 00 84
```

```
14 = 44 00 00 00
```

```
18 = 00 00 00 00
```

```
1C = 00 00 00 00
```

```
20 = 00 00 00 00
```

```
24 = 00 00 00 00
```

```
28 = 00 00 A1 03
```

```
2C = 00 01 00 00
```

```
30 = 00 00 00 00
```

```
34 = 00 00 00 00
```

```
38 = 00 00 00 00
```

```
3C = 00 00 00 00
```

```
40 = 00 00 00 00
```

```
44 = 00 80 00 80
```

```
48 = 00 80 00 7F
```

```
4C = FF 7F FF 7F
```

```
50 = FF 10 00 00
```

```
54 = 00 00 00 00
```

```
58 = 00 00 00 00
```

```
5C = 00 00 00 00
```

```
60 = 00 00 00 00
```

```
64 = 00 00 00 00
```

```
68 = 00 00 00 00
```

```
6C = 00 00 00 00
```

```
70 = 00 00 00 00
```

```
74 = 00 00 00 00
```

```
78 = 00
```

```
FXLS8471Q>
```

---

## 4.6 Register Write (RW)

Writes a single byte to the specified address.

### Format

"RW<space>xx=nn<ENTER>"

### Input Parameter(s)

xx: two ASCII characters representing a 1-byte register address in hexadecimal.

nn: two ASCII characters representing a byte in hexadecimal, to be written to xx.

### Output

"Success" or "Failure"

### NOTE

A warning message will be displayed when modifying the CTRL\_REG1 (0x2A) indicating that the part must be in standby mode prior to changing output data rate (ODR).

#### Example 9. Register Write: Write to OFF\_X Register

---

```
FXLS8471Q> RW 2F=AA Success
```

```
FXLS8471Q>
```

---

## 4.7 Report Configuration (RF)

Displays device configuration details.

### Format

"RF<ENTER>"

### Input Parameter(s)

None

### Output

*Data Output Direction:*

"Serial Port" or "MCU Flash"

*Operating Mode:*

"ACTIVE", "STANDBY"

*Output Data Rate (ODR):*

"800Hz", "400Hz", "200Hz", "100Hz", "50Hz", "12.5Hz", "6.25Hz", "1.56Hz"

*Auto Sleep ODR (ASLP ODR):*

"50", "12.5", "6.25", "1.56"

*Oversampling Ratio (OSR):*

"Normal", "Low Noise", "High Res", "Low Power"

*High Pass Filter (HP):*

"0.031", "0.063", "0.125", "0.25", "0.5", "1", "2", "4", "8", "16" + "Filter ON", "Filter OFF"

*Full Scale Range (FSR):*

"2g", "4g", "8g", "Rsvd"

---

#### Example 10. Report Configuration

---

```
FXLS8471Q> RF
```

```
Data Output Direction = Serial Port,  
Operating Mode = ACTIVE,  
ODR = 50Hz,  
ASLP ODR = 6.25Hz,  
OSR = Low Power,  
HP = 1Hz, Filter OFF,  
FSR = 8g
```

```
FXLS8471Q>
```

---

## 4.8 Display XYZ Data as Signed Counts (CN)

Displays XYZ data from a single acquisition cycle.

### NOTE

If the device is in standby mode prior to execution of this command it will be put into active mode automatically.

### Format

"CN<ENTER>"

### Input Parameter(s)

None

### Output

XYZ data will be displayed based on current configuration. Data will be in the range [-8192, +8191].

---

#### Example 11. Display XYZ Data as Signed Counts

---

```
FXLS8471Q> CN  
X=-00161;Y=-00008;Z=+01031
```

```
FXLS8471Q>
```

---

## 4.9 Display XYZ Data as Signed Counts, with HPF Enabled (CH)

Identical to [Section 4.8](#) except data is fed through a high-pass filter before being displayed.

### NOTE

- If the device is in standby mode prior to execution of this command it will be put into active mode automatically.
- If the high-pass filter is off prior to execution of this command it will be turned on automatically; in this case a warning message will be displayed as shown below.

### Format

"CH<ENTER>"

### Input Parameter(s)

None

### Output

XYZ data will be displayed based on current configuration. Data will be in the range [-8192, +8191].

#### Example 12. Display XYZ Data as Signed Counts, with HPF Enabled

---

```
FXLS8471Q> CH
*****
* !!! - WARNING - !!!                                     *
* HPF requires samples to settle after an activation        *
*****

X=+00003;Y=+00005;Z=+00000

FXLS8471Q>
```

---

## 4.10 Display XYZ Data in Signed Units (GN)

Displays XYZ data from a single acquisition cycle.

### NOTE

If the device is in standby mode prior to execution of this command it will be put into active mode automatically.

### Format

"GN<ENTER>"

### Input Parameter(s)

None

## Output

XYZ data will be displayed based on current configuration. Data read from the device will be converted to g units; data will be in the range as specified in "FSR" (ex. for "FSR = 2 g", in the range [-2.0000 g, +1.9998 g]).

---

### Example 13. Display XYZ Data in Signed Units

---

```
FXLS8471Q> GN
X=-0.1611g;Y=-0.0048g;Z=+1.0117g

FXLS8471Q>
```

---

## 4.11 Display XYZ Data in Signed Units, with HPF Enabled (GH)

Identical to [Section 4.10](#) except data is fed through a high-pass filter before being displayed.

### NOTE

- If the device is in standby mode prior to execution of this command it will be put into active mode automatically.
- If the high-pass filter is off prior to execution of this command it will be turned on automatically; in this case a warning message will be displayed as shown below.

## Format

"GH<ENTER>"

## Input Parameter(s)

None

## Output

XYZ data will be displayed based on current configuration. Data read from the device will be converted to g units. Data will be in the range as specified in "FSR" (ex. for "FSR = 2 g", in the range [-2.0000 g, +1.9998 g]).

---

### Example 14. Display XYZ Data in Signed Units, with HPF Enabled

---

```
FXLS8471Q> GH
*****
* !!! - WARNING - !!!                                     *
* HPF requires samples to settle after an activation        *
*****

X=+0.0009g;Y=+0.0000g;Z=+0.0029g

FXLS8471Q>
```

---



## 4.12 Stream XYZ Data by Polling (S)

Streams XYZ data by polling.

The characteristic of the streamed data will be the same as the output generated by one of the four display commands explained above in [Sections 4.8 through 4.11](#); this will be specified via the *aa* parameter of this command.

### NOTES

- If "Data Output Direction = Serial Port" data will be output to virtual serial port; if "Data Output Direction = MCU Flash" data will be stored in FLASH along with the current configuration specifics of the device. This data can later be viewed using "FD" command (See [Section 4.15](#)). If there is attempt to overwrite data in FLASH an error message will be displayed asking user to explicitly erase FLASH using "FE" command (See [Section 4.16](#)).
- Streaming data is not recommended for ODR settings faster than 200 Hz. Streaming faster than recommended will lead to missed samples. This applies to both "Data Output Direction" settings (that is "Serial Port" or "MCU Flash").
- This command will disable interrupt pins of the device.
- Hit <ENTER> to stop streaming at any time

### Format

"S<SPACE>aa<ENTER>"

### Input Parameter(s)

*aa*: "CN" or "CH" or "GN" or "GH"

### Output

Data will be streamed based on command parameter and current configuration.

#### Example 15. Stream XYZ Data by Polling, Output to Serial Port

---

```
FXLS8471Q> S CN
```

Streaming XYZ data as signed counts

```
X=-00163;Y=-00005;Z=+01034
X=-00166;Y=-00011;Z=+01026
X=-00162;Y=-00005;Z=+01034
X=-00161;Y=-00003;Z=+01037
X=-00163;Y=-00008;Z=+01032
X=-00161;Y=-00010;Z=+01029
X=-00160;Y=-00005;Z=+01028
X=-00164;Y=-00006;Z=+01028
X=-00163;Y=-00005;Z=+01027
X=-00156;Y=-00006;Z=+01033
X=-00164;Y=-00009;Z=+01030
X=-00162;Y=-00007;Z=+01032
```

```
FXLS8471Q>
```

---

---

### Example 16. Stream XYZ Data by Polling, Capture in FLASH

---

```
FXLS8471Q> S GN
```

```
Streaming XYZ data in signed units
```

```
Capturing Data in FLASH...
```

```
Hit ENTER to stop
```

```
FXLS8471Q>
```

---

## 4.13 Stream XYZ Data using Interrupts (I)

Stream XYZ data using interrupts.

The characteristic of the streamed data will be the same as the output generated by one of the four display commands explained above in [Sections 4.8](#) through [4.11](#); this will be specified via the *aa* parameter of this command.

### NOTE

- If "Data Output Direction = Serial Port" data will be output to virtual serial port; if "Data Output Direction = MCU Flash" data will be stored in FLASH along with the current configuration specifics of the device. This data can later be viewed using "FD" command (See [Section 4.14](#)). If there is attempt to overwrite data in FLASH an error message will be displayed asking user to explicitly erase FLASH using "FE" command (See [Section 4.16](#)).
- Streaming data is not recommended for ODR settings faster than 200 Hz. Streaming faster than recommended will lead to missed samples. This applies to both "Data Output Direction" settings (that is, "Serial Port" or "MCU Flash").
- This command will enable the selected interrupt pin as active low for data-ready (DRDY) indication.
- Hit <ENTER> to stop streaming at any time

### Format

```
"I<SPACE>aa<SPACE>n<ENTER>"
```

### Input Parameter(s)

*aa*: "CN" or "CH" or "GN" or "GH"

*n*: "1" for INT1 or "2" for INT2, specifying which interrupt pin to use for streaming. Interrupt pin used will be forced to INT1 regardless of user selection due to FRDM-FXS-MULTI expansion board layout.

### Output

Data will be streamed based on command parameter and current configuration.

---

### Example 17. Stream XYZ Data Using Interrupts

---

```
FXLS8471Q> I GN 2
```

Streaming XYZ data using INT2 in signed units

```
X=-0.1572g;Y=-0.0058g;Z=+1.0107g
X=-0.1621g;Y=-0.0087g;Z=+1.0048g
X=-0.1621g;Y=-0.0078g;Z=+1.0097g
X=-0.1591g;Y=-0.0097g;Z=+1.0058g
X=-0.1562g;Y=-0.0068g;Z=+1.0107g
X=-0.1572g;Y=-0.0058g;Z=+1.0107g
X=-0.1591g;Y=-0.0097g;Z=+1.0019g
X=-0.1572g;Y=-0.0087g;Z=+1.0019g
```

```
FXLS8471Q>
```

---

## 4.14 Stream XYZ Data via the FIFO Buffer (F)

Stream XYZ data using the FIFO buffer.

The characteristic of the streamed data will be the same as the output generated by one of the four display commands explained above in [Sections 4.8](#) through [4.11](#); this will be specified via the *aa* parameter of this command.

### NOTE

- If "Data Output Direction = Serial Port" data will be output to virtual serial port; if "Data Output Direction = MCU Flash" data will be stored in FLASH along with the current configuration specifics of the device. This data can later be viewed using "FD" command (See [Section 4.15](#)). If there is attempt to overwrite data in FLASH an error message will be displayed asking user to explicitly erase FLASH using "FE" command (See [Section 4.16](#)).
- Streaming data is not recommended for ODR settings faster than 200 Hz. Streaming faster than recommended will lead to missed samples. This applies to both "Data Output Direction" settings (that is, "Serial Port" or "MCU Flash"). However, in the special case where "Data Output Direction" is set to "MCU Flash" and FIFO Watermark is set to two samples or more, it is possible to capture data in FLASH without missing samples.
- This command will enable INT1 pin as active low for data-ready (DRDY) indication.
- Hit <ENTER> to stop streaming at any time

### Format

"F<SPACE>aa<SPACE>ww<ENTER>"

## Input Parameter(s)

*aa*: "CN" or "CH" or "GN" or "GH", specifying the data format for streaming.

*ww*: "1"-"31" samples per FIFO acquisition, utilizing the watermark detection feature.

"0" for filling the whole buffer, utilizing the overflow detection feature.

## Output

Data will be streamed based on command parameter and current configuration.

### Example 18. Stream Data using the FIFO Buffer

---

```
FXLS8471Q> f cn 12
```

Streaming XYZ data using FIFO as signed counts

```
FIFO Watermark Samples= 12 group= 00
```

```
X=-00164;Y=-00007;Z=+01029
```

```
X=-00162;Y=-00007;Z=+01034
```

```
X=-00164;Y=-00006;Z=+01034
```

```
X=-00165;Y=-00004;Z=+01036
```

```
X=-00160;Y=-00009;Z=+01027
```

```
X=-00159;Y=-00003;Z=+01033
```

```
X=-00162;Y=-00007;Z=+01035
```

```
X=-00161;Y=-00006;Z=+01031
```

```
X=-00163;Y=-00004;Z=+01028
```

```
X=-00162;Y=-00005;Z=+01035
```

```
X=-00162;Y=-00013;Z=+01032
```

```
X=-00164;Y=-00004;Z=+01039
```

```
FIFO Watermark Samples= 12 group= 01
```

```
X=-00164;Y=-00007;Z=+01032
```

```
X=-00166;Y=-00006;Z=+01035
```

```
X=-00159;Y=-00003;Z=+01030
```

```
X=-00163;Y=-00007;Z=+01031
```

```
X=-00163;Y=-00009;Z=+01036
```

```
X=-00157;Y=-00005;Z=+01032
```

```
X=-00162;Y=-00007;Z=+01028
```

```
X=-00161;Y=-00006;Z=+01033
```

```
X=-00165;Y=-00009;Z=+01038
```

```
X=-00161;Y=-00008;Z=+01035
```

```
X=-00161;Y=-00002;Z=+01033
```

```
X=-00161;Y=-00007;Z=+01032
```

```
FXLS8471Q>
```

---

## 4.15 Display Flash Data (FD)

Display device configuration details during the time of capture and data in FLASH in the format (*aa* = "CN", "CH", etc.) it was captured.

### Format

"FD<ENTER>"

### Input Parameter(s)

None

### Output

Device configuration details at the time of capture will be displayed followed by captured data.

---

#### Example 19. Display Flash Data: Data Captured Using FIFO Buffer

---

```
FXLS8471Q> FD
```

```
Printing FLASH contents...
```

```
Operating Mode = ACTIVE,  
ODR = 50Hz,  
ASLP ODR = 6.25Hz,  
OSR = Low Power,  
HP = 1Hz, Filter OFF,  
FSR = 8g
```

```
FIFO Watermark Samples=    5 group= 02  
X=-0.1611g;Y=-0.0078g;Z=+1.0097g  
X=-0.1572g;Y=-0.0058g;Z=+1.0068g  
X=-0.1582g;Y=-0.0087g;Z=+1.0078g  
X=-0.1582g;Y=-0.0078g;Z=+1.0087g  
X=-0.1591g;Y=-0.0117g;Z=+1.0087g  
FIFO Watermark Samples=    5 group= 03  
X=-0.1601g;Y=-0.0068g;Z=+1.0097g  
X=-0.1582g;Y=-0.0039g;Z=+1.0136g  
X=-0.1572g;Y=-0.0048g;Z=+1.0126g  
X=-0.1630g;Y=-0.0087g;Z=+1.0048g  
X=-0.1582g;Y=-0.0078g;Z=+1.0097g
```

```
FXLS8471Q>
```

---

#### Example 20. Display Flash Data: Data Captured by Streaming

---

```
FXLS8471Q> FD
```

```
Printing FLASH contents...
```

```
Operating Mode = ACTIVE,  
ODR = 50Hz,  
ASLP ODR = 6.25Hz,
```

```
OSR = Low Power ,
HP = 1Hz, Filter OFF,
FSR = 8g
```

```
X=-00163;Y=-00005;Z=+01031
X=-00163;Y=-00007;Z=+01029
X=-00164;Y=-00011;Z=+01032
X=-00167;Y=-00005;Z=+01035
X=-00164;Y=-00011;Z=+01030
X=-00166;Y=-00008;Z=+01028
X=-00164;Y=-00007;Z=+01035
```

```
FXLS8471Q>
```

---

## 4.16 Erase Flash (FE)

Erases contents of the FLASH.

### Format

"FE<ENTER>"

### Input Parameter(s)

None

### Output

Information regarding FLASH erase progress.

---

#### Example 21. Erase Flash

---

```
FXLS8471Q> FE
```

```
Erasing User FLASH...Done
```

```
FXLS8471Q>
```

---



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