# CYUSB3KIT-003

Choose the type of installation		
Product CYUSE3KIT-003		
Installation Type:	. †	
Typical •		-
Installs the most common features of CYUSE3KIT-003.		

### Step 1: Software Installation

 Download and install the latest Kit Setup SuperSpeedExplorerKitSetup.exe from www.cypress.com/go/SuperSpeedExplorerKit

🛃 Device Manager	
File Action View Help	
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<ul> <li>Sound, video and game contro</li> <li>System devices</li> <li>Universal Serial Bus controllers</li> </ul>	llers 🖍
Gypress FX3 USB StreamerE	xample Device
🟺 Generic USB Hub	
🖨 Generic USB Hub	2
Generic LISP Hub	J

#### Step 3: Driver Installation

- Drivers are installed automatically. The board enumerates as Cypress FX3 USB StreamerExample Device under Universal Serial Bus Controllers in Windows Device Manager
- If automatic driver binding does not happen, follow the note given on the next page to manually bind the driver



### Step 2: Hardware Connection

- Make sure that jumpers J2 and J3 are closed, J4 and J5 are open
- Connect the board to the computer using the USB 3.0 cable provided
- Power LED glows green when the board is powered



Step 4: Observe the Blue LED (LED2)

- Blue LED blinks if the board is connected to a USB 3.0 host port
- Blue LED stays ON if the board is connected to a USB 2.0 host port

Endpoint	BULK IN.	16384 Bytes, 15 MaxBurs	t. 💌
Packets per Xfer	256 💌	Successes	þ
Xfers to Queue	64 💌	Failures	0
Timeout Per Xfer (ms)	1500	Start	
Transfer Rate (KB/s)	0		
CPU Utilization (%)			
4.and	1%		
- Show Transford D	-		

#### Step 5: Configure the Streamer Application

- To measure the USB data transfer rate, run Streamer.exe from C:\Program Files (x86)\ Cypress\EZ-USB FX3 SDK\1.3\application\ cpp\streamer\x86\Release
- In the Streamer application, select the following parameters
  - Endpoint .... BULK IN
  - Packets per Xfer 256
  - Xfers to Queue 64
- Click Start

Endpoint	BULK IN,	16384 Bytes, 15 MaxBu	urst, 💌
Packets per Xfer	256 💌	Successes	2176
(fers to Queue	64 💌	Failures	0
Timeout Per Xfer (ms)	1500	Stop	
Transfer Rate (KB/s)	444300	)	
- Transfer Rate (KB/s)	444300	)	
CPU Utilization (%)	444300	)	
- Transfer Rate (KB/s)	444300 3 %	9	
- Transfer Rate (KB/s)	444300		

#### Step 6: Demonstrating the USB Transfer Rate

- The Streamer application displays the USB transfer rate in KB/s as shown above
- The transfer rate shown in the above picture is when the board is connected to a USB 3.0-enabled computer. The transfer rate may vary depending on USB 3.0 host controller's capability. If a USB 2.0 enable computer is used, data throughput will be limited to USB 2.0 speeds

Note:

- a. To manually bind the driver, in Windows Device Manger, locate the FX3 device under Other devices. Right-click the device and select Update Driver Software. Choose Browse my computer for driver software.
- b. Browse to the location <Install Directory>\Cypress\SuperSpeed Explorer Kit\1.0\Driver\bin. The default Install Directory is C:\Program Files for 32-bit operating system (OS) and C:\Program Files (x86) for 64-bit OS
- c. Select a driver based on OS and click on **Next**. For e.g. the driver for Win7 64-bit OS is located at **C:\Program Files (x86)\Cypress\SuperSpeed Explorer Kit\1.0\Driver\bin\Win7\x64**

## **INTERCONNECT BOARDS**

 Interface the Kit with Xilinx<sup>®</sup> FPGA, Altera<sup>®</sup> FPGA, and Aptina<sup>™</sup> image sensor using the interconnect boards available at www.cypress.com/go/SuperSpeedExplorerKit-Interconnect



CYUSB3ACC -004 Interconnect board for Aptina image sensor board



CYUSB3ACC -005 Interconnect board for Xilinx FPGA board



CYUSB3ACC -006 Interconnect board for Altera FPGA board

Learn to use FX3 in your design with the projects in the Kit Guide available at www.cypress.com/go/SuperSpeedExplorerKit

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For the latest information about this Kit and to download Kit Software and Hardware files, visit http://www.cypress.com/go/SuperSpeedExplorerKit

