

# Cypress Behavior Notes

## RX-888, Direct Connector on Desktop :

### Thought to be malfunctioning:

#### (\$ lsusb)

- Bus 001 Device 006: ID 04b4:00f3 Cypress Semiconductor Corp. FX3 micro-controller (DFU mode)

#### (\$ lsusb -v)

- Bus 001 Device 006: ID 04b4:00f3 Cypress Semiconductor Corp. FX3 micro-controller (DFU mode)

Device Descriptor:

bLength 18

bDescriptorType 1

bcdUSB 2.00

bDeviceClass 0

bDeviceSubClass 0

bDeviceProtocol 0

bMaxPacketSize0 64

idVendor 0x04b4 Cypress Semiconductor Corp.

idProduct 0x00f3 FX3 micro-controller (DFU mode)

bcdDevice 1.00

iManufacturer 1 Cypress

iProduct 2 WestBridge

iSerial 3 0000000004BE

bNumConfigurations 1

Configuration Descriptor:

bLength 9

bDescriptorType 2

wTotalLength 0x0012

bNumInterfaces 1

bConfigurationValue 1

iConfiguration 0

bmAttributes 0x80

(Bus Powered)

MaxPower 200mA

Interface Descriptor:

bLength 9

bDescriptorType 4  
bInterfaceNumber 0  
bAlternateSetting 0  
bNumEndpoints 0  
bInterfaceClass 255 Vendor Specific Class  
bInterfaceSubClass 0  
bInterfaceProtocol 0  
iInterface 0  
Device Qualifier (for other device speed):  
bLength 10  
bDescriptorType 6  
bcdUSB 2.00  
bDeviceClass 0  
bDeviceSubClass 0  
bDeviceProtocol 0  
bMaxPacketSize0 64  
bNumConfigurations 1  
Device Status: 0x0000  
(Bus Powered)

## **Untested Functionality, Internal clock jumper in place (no external clock applied):**

### **(\$ lsusb)**

- Bus 001 Device 007: ID 04b4:00f3 Cypress Semiconductor Corp. FX3 micro-controller (DFU mode)

### **(\$ lsusb -v)**

- Bus 001 Device 007: ID 04b4:00f3 Cypress Semiconductor Corp. FX3 micro-controller (DFU mode)  
Device Descriptor:  
bLength 18  
bDescriptorType 1  
bcdUSB 2.00  
bDeviceClass 0  
bDeviceSubClass 0  
bDeviceProtocol 0  
bMaxPacketSize0 64  
idVendor 0x04b4 Cypress Semiconductor Corp.  
idProduct 0x00f3 FX3 micro-controller (DFU mode)  
bcdDevice 1.00  
iManufacturer 1 Cypress

iProduct 2 WestBridge  
iSerial 3 0000000004BE  
bNumConfigurations 1  
Configuration Descriptor:  
bLength 9  
bDescriptorType 2  
wTotalLength 0x0012  
bNumInterfaces 1  
bConfigurationValue 1  
iConfiguration 0  
bmAttributes 0x80  
(Bus Powered)  
MaxPower 200mA  
Interface Descriptor:  
bLength 9  
bDescriptorType 4  
bInterfaceNumber 0  
bAlternateSetting 0  
bNumEndpoints 0  
bInterfaceClass 255 Vendor Specific Class  
bInterfaceSubClass 0  
bInterfaceProtocol 0  
iInterface 0  
Device Qualifier (for other device speed):  
bLength 10  
bDescriptorType 6  
bcdUSB 2.00  
bDeviceClass 0  
bDeviceSubClass 0  
bDeviceProtocol 0  
bMaxPacketSize0 64  
bNumConfigurations 1  
Device Status: 0x0000  
(Bus Powered)

## **Virgin Cypress Superspeed Explorer Kit Presumed Fully Functional:**

**(\$ lsusb)**

- Bus 002 Device 005: ID 04b4:00f1 Cypress Semiconductor Corp. FX3

**(\$ lsusb -v)**

- Bus 002 Device 005: ID 04b4:00f1 Cypress Semiconductor Corp. FX3

Device Descriptor:

bLength 18

bDescriptorType 1

bcdUSB 3.00

bDeviceClass 0

bDeviceSubClass 0

bDeviceProtocol 0

bMaxPacketSize0 9

idVendor 0x04b4 Cypress Semiconductor Corp.

idProduct 0x00f1

bcdDevice 0.00

iManufacturer 1 Cypress

iProduct 2 FX3

iSerial 0

bNumConfigurations 1

Configuration Descriptor:

bLength 9

bDescriptorType 2

wTotalLength 0x002c

bNumInterfaces 1

bConfigurationValue 1

iConfiguration 0

bmAttributes 0x80

(Bus Powered)

MaxPower 400mA

Interface Descriptor:

bLength 9

bDescriptorType 4

bInterfaceNumber 0

bAlternateSetting 0

bNumEndpoints 2

bInterfaceClass 255 Vendor Specific Class

bInterfaceSubClass 0

bInterfaceProtocol 0

iInterface 0

Endpoint Descriptor:

bLength 7

bDescriptorType 5

bEndpointAddress 0x01 EP 1 OUT

bmAttributes 2

Transfer Type Bulk

Synch Type None

## Usage Type Data

wMaxPacketSize 0x0400 1x 1024 bytes

bInterval 0

bMaxBurst 15

Endpoint Descriptor:

bLength 7

bDescriptorType 5

bEndpointAddress 0x81 EP 1 IN

bmAttributes 2

Transfer Type Bulk

Synch Type None

## Usage Type Data

wMaxPacketSize 0x0400 1x 1024 bytes

bInterval 0

bMaxBurst 15

Binary Object Store Descriptor:

bLength 5

bDescriptorType 15

wTotalLength 0x0016

bNumDeviceCaps 2

USB 2.0 Extension Device Capability:

bLength 7

bDescriptorType 16

bDevCapabilityType 2

bmAttributes 0x00000002

HIRD Link Power Management (LPM) Supported

SuperSpeed USB Device Capability:

bLength 10

bDescriptorType 16

bDevCapabilityType 3

bmAttributes 0x00

wSpeedsSupported 0x000e

Device can operate at Full Speed (12Mbps)

Device can operate at High Speed (480Mbps)

Device can operate at SuperSpeed (5Gbps)

bFunctionalitySupport 3

Lowest fully-functional device speed is SuperSpeed (5Gbps)

bU1DevExitLat 10 micro seconds

bU2DevExitLat 2047 micro seconds

Device Status: 0x0000

(Bus Powered)