

Serial Cables U.2 to M.2 Adapter Setup and CLI Guide

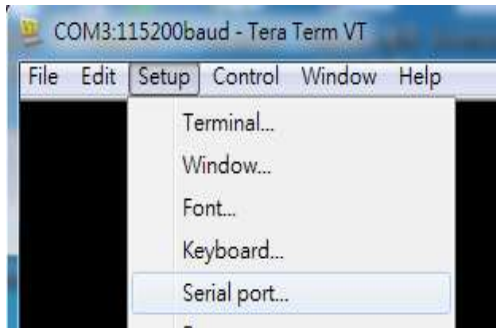
PCI-AD-U2M2-04

Setup

Step 1. Install and launch Tera Term (Hyper Terminal v3.0 and higher is also compatible)



Step 2. To ensure proper communications between the NVMe JBOF controller and the VT100 Terminal emulation, please configure the VT100 Terminal emulation settings to the values shown below:



For "Port", select COM3 in this example. (Depends on which COM port used on Host)

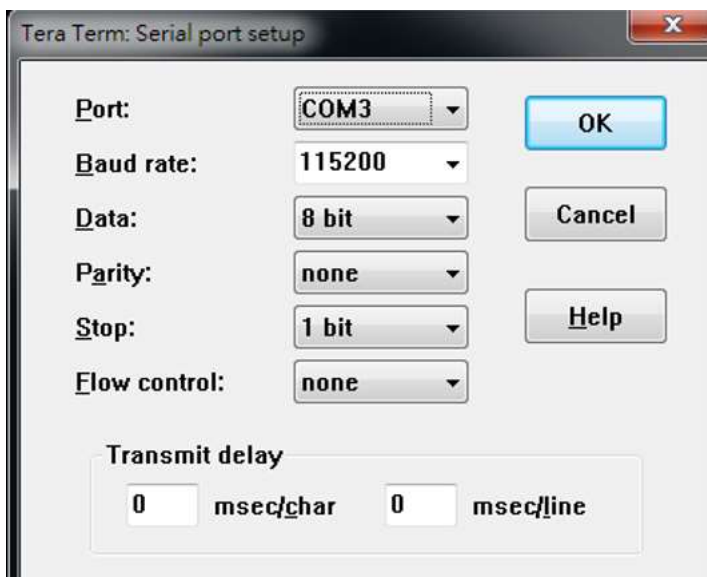
For "Baud rate", select 115200.

For "Data", select 8 bit.

For "Parity", select none.

For "Stop", select 1 bit.

For "Flow control", select: none.



Command Set

The 'help' command shows all commands supported:

```
File Edit Setup Control Window Help
cmd>help
Command      Description
=====
lsd           - List Devices Status
              - Usage: lsd

led           - Set led On/Off
              - Usage: led LedNum [on/off] or led toggle

power         - Set SSD power On/Off
              - Usage: power [on/off]

present       - M2 status
              - Usage: present

select        - Set I2C direction
              - Usage: select [0:U2 to M2, 1:uP to M2 ]
              - 0:U2 to M2, 1:uP to M2

iicu          - I2C Write bytes
              - Usage: iicu <SlaveAddress(H)> <WriteData(H)...>
              - WriteByte must be between 1 and 32 bytes

iicr          - I2C Read bytes
              - Usage: iicr <SlaveAddress(H)> <NumBytesToRead(D)>
              - ReadByte must be between 1 and 32 bytes

iicur         - I2C WriteRead bytes
              - Usage: iicur <SlaveAddress(H)> <NumBytesToRead(D)> <WriteData(H)>
              - ReadByte must be between 1 and 32 bytes

ver           - FH Version
              - Usage: ver
```

The 'lsd' command lists the status of the device, along with voltage, current and temperature:

```
File Edit Setup Control Window Help
cmd>lsd
=====
Voltage
=====
3.3V: 3.267V
1.8V: 1.933V
=====
Temperature
=====
Temperature: 31
=====
Current
=====
Current: 0 mA
```

The 'led' command shows the status of the two tri-color LEDs located at LED2 and LED3:

```
File Edit Setup Control Window Help
cnd>led 1 on
cnd>led 2 on
cnd>led 3 on
cnd>led 4 on
cnd>led 5 on
cnd>led 6 on
```

The parameter LED1 is used to control Green LED, LED2 is Red, LED3 is blue in "LED2".

The parameter LED4 is used to control Green LED, LED5 is Red, LED6 is blue in "LED3".

If you want to turn on the green LED for LED2, type "led 1 on",

green LED for LED3, type "led 4 on".

The LED toggle command will enable a staggered power on/off LEDs:

LED1 on→LED1 off→LED2 on→LED2 off

```
File Edit Setup Control Window Help
cnd>led toggle
```

The 'power' command toggles the power on/off for the 3.3v pin:

```
File Edit Setup Control Window Help
cnd>power on
MSP_P3V3 On
```

The 'present' command displays if a drive was detected:

```
File Edit Setup Control Window Help
cnd>present
M2 install
```

The 'select' command chooses between the two SMBus paths to the M.2 drive, one controlled by uP and the other controlled from the U.2 SFF-8639:

```
File Edit Setup Control Window Help
cnd>select 0
I2C Direction: U2 to M2
cnd>select 1
I2C Direction: uP to M2
```

The 'iicw' command writes 3 bytes of data to device 0xa0:

```
File Edit Setup Control Window Help
cnd>iicw a0 0 aa bb cc
SlaveAddress:0xa0, WriteData: 0x0 0xaa 0xbb 0xcc
```

The 'iicr' command reads 10 bytes from the device at the a0 address:

```
File Edit Setup Control Window Help
cnd>iicr a0 10
SlaveAddress:0xa0 NumBytesToRead:10
buf[0]:0xaa
buf[1]:0xbb
buf[2]:0xcc
buf[3]:0xff
buf[4]:0xff
buf[5]:0xff
buf[6]:0xff
buf[7]:0xff
buf[8]:0xff
buf[9]:0xff
```

The 'iicwr' command reads 8 bytes of data from 0xa0, starting from address 0x00:

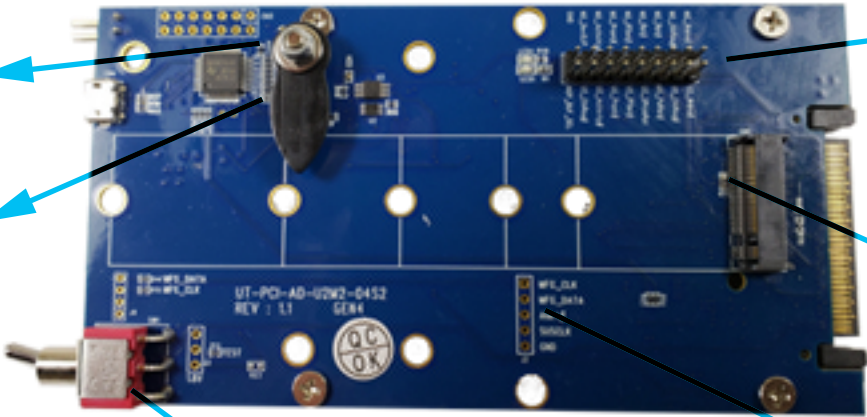
```
cnd>iicwr a0 8 0
SlaveAddress:0xa0 NumBytesToRead:8 WriteData:0x0
buf[0]:0xaa
buf[1]:0xbb
buf[2]:0xcc
buf[3]:0xff
buf[4]:0xff
buf[5]:0xff
buf[6]:0xff
buf[7]:0xff
```

Note: There is an EEPROM at address 0xA0 for any configuration data storage

FRONT

LED 3

LED 2



J1

U2_WAKE#	M2_WAKE#
U2_CLKREQ#	M2_CLKREQ#
U2_PERST#	M2_PERST#
U2_SPOERST	
U2_IFDET#	M2_IFDET#
U2_PRESN#	M2_PRESN#
U2_ACTIVITY#	M2_ACTIVITY#
U2_CLKREQ#	M2_DEVSUP
MSP_BUF_SEL	GND

Temp Sensor

J2

MFG_CLK
MFG_DATA
ALETT#
SUSCLK
GND

3.3V for M.2 SSD is
Power on control by uP

Force power on

BACK

