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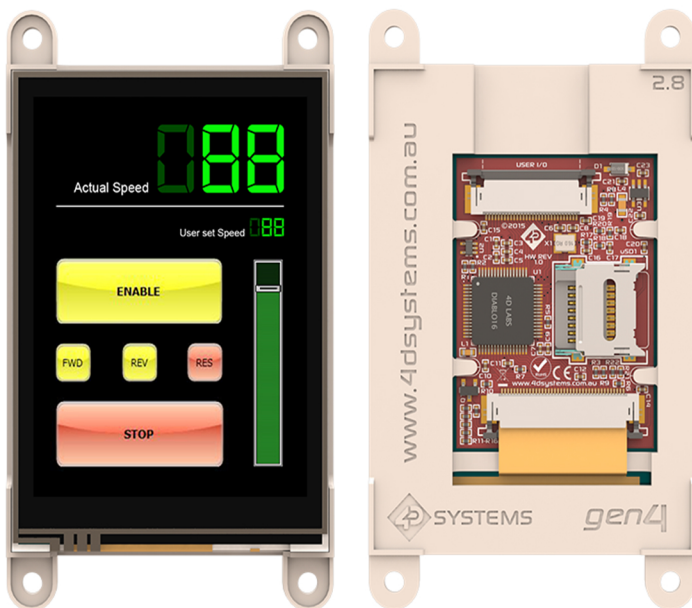
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# QUICK START GUIDE

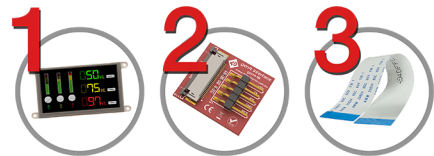
## gen4-uLCD-28 D/DT

2.8" Slim Intelligent Display Module with embedded  
DIABLO16 Processor and Resistive Touch Panel



### What's included?

- ✓ gen4-uLCD-28 (D/DT)
- ✓ gen4-Interface Board
- ✓ 30-way Flat Flex Cable (FFC)



### Supporting Documents

Datasheet, CAD step model, applicable downloads, documents and application notes are available on the 4D Systems website.



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## LET'S GET STARTED



### REQUIREMENTS:

To connect this module to a computer, you need the supplied FFC and gen4-IB (Interface Board) as well as the 4D Programming Cable or uUSB-PA5-II (Programming Adaptor). Alternatively, you can use the supplied FFC and the gen4- PA (Programming Adaptor) or 4D-UPA (Universal Programming Adaptor) and a micro USB Cable

The 4D Programming Cable, uUSB-PA5-II Programming Adaptor, gen4-PA and 4D UPA are available separately from 4D Systems. ([www.4dsystems.com.au](http://www.4dsystems.com.au))



FFC



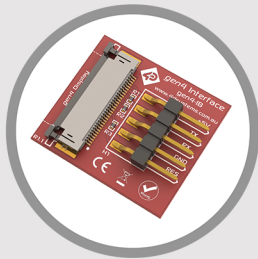
FFC



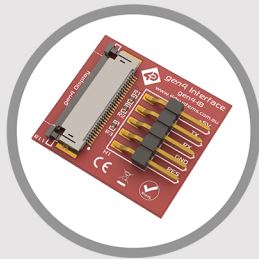
FFC



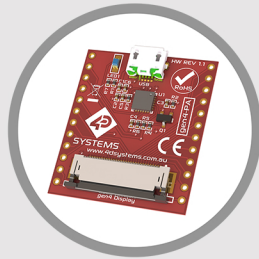
FFC



gen4-IB



gen4-IB



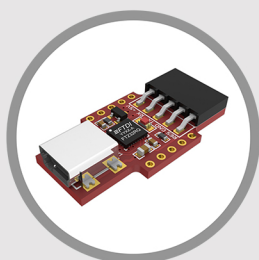
gen4-PA



4D-UPA



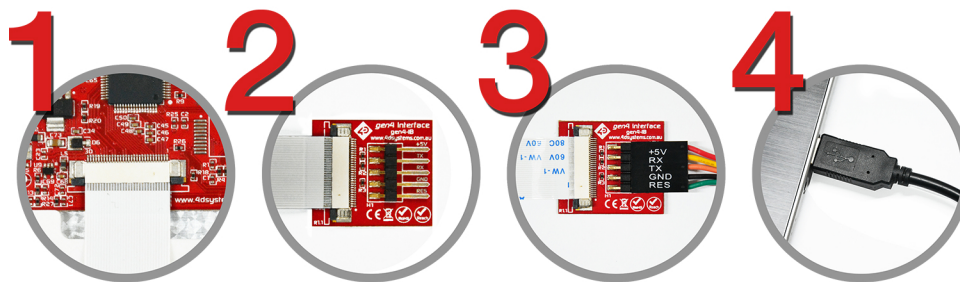
4D Programming Cable



uUSB-PA5-II

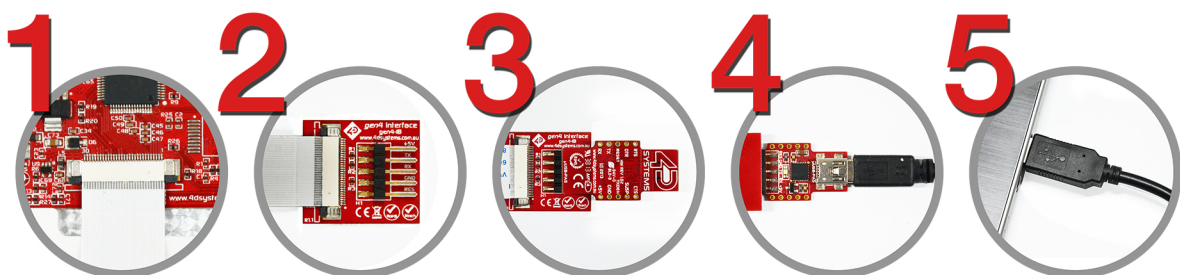
### Power Up and Connect to a Computer Using gen4-IB & 4D Programming Cable

- 1) Connect one end of the FFC to your module's 30-way ZIF socket with the metal contacts on the FFC facing up on the latch.
- 2) Connect the other end of the FFC to the 30-way ZIF socket on the gen4-IB\* with the metal contacts on the FFC facing up on the latch.
- 3) Connect the 5-Pin female header of the 4D Programming Cable to the gen4-IB following the orientation on both cable and module labels. (you can also do this with the assistance of the supplied ribbon cable)
- 4) Connect the other end of the 4D Programming Cable to the computer.



### Power Up and Connect to a Computer Using gen4-IB & uUSB-PA5-II

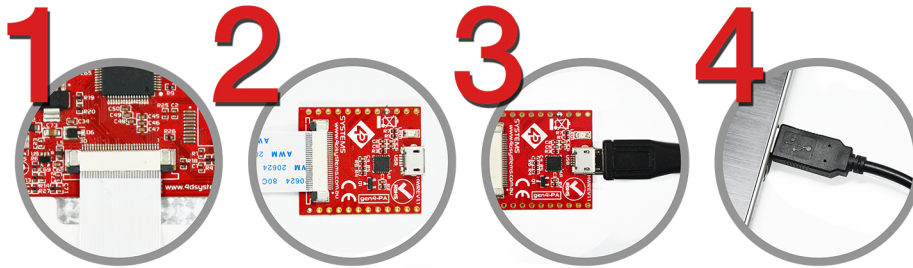
- 1) Connect one end of the FFC to your module's 30-way ZIF socket with the metal contacts on the FFC facing up on the latch.
- 2) Connect the other end of the FFC to the 30-way ZIF socket on the gen4-IB\* with metal contacts on the FFC facing up on the latch.
- 3) Connect the 5-Pin female header of the uUSB-PA5-II to the gen4-IB following the orientation on both cable and module labels. (you can also do this with the assistance of the supplied ribbon cable)
- 4) Connect a USB-Mini-B Cable to the uUSB-PA5-II.
- 5) Lastly, connect the other end of the uUSB-Mini-B to the computer.





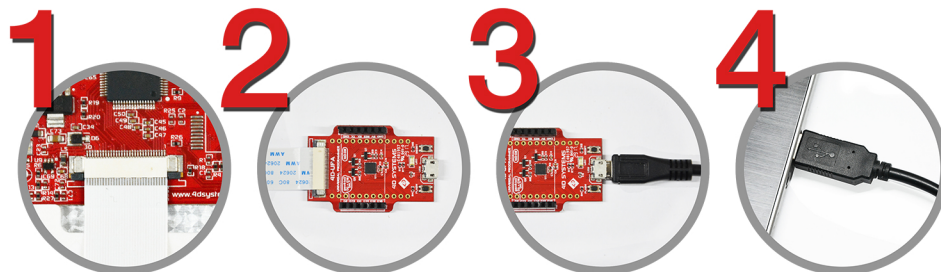
## Power Up and Connect to a Computer Using gen4-PA

- 1) Connect one end of the FFC to your module's 30-way ZIF socket with the metal contacts on the FFC facing up on the latch.
- 2) Connect the other end of the FFC to the 30-way ZIF socket on the gen4-PA\* with the metal contacts on the FFC facing up on the latch.
- 3) Connect the USB-Micro-B Cable to the gen4-PA.
- 4) Lastly, connect the other end of the USB-Micro-B Cable to the computer.



## Power Up and Connect to a Computer Using 4D-UPA

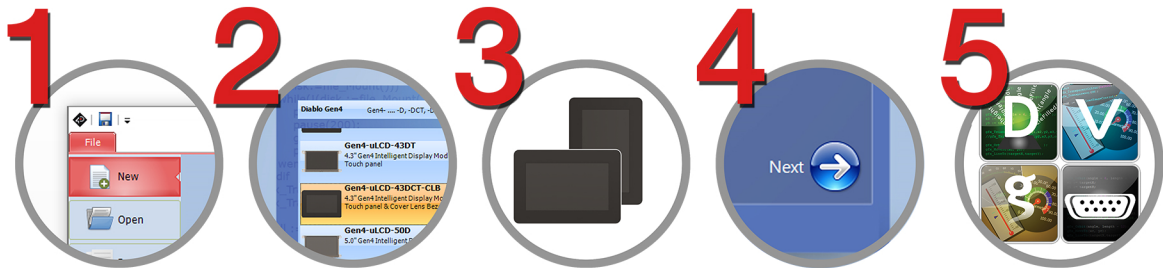
- 1) Connect one end of the FFC to your module's 30-way ZIF socket with the metal contacts on the FFC facing up on the latch.
- 2) Connect the other end of the FFC to the 30-way ZIF socket on the 4D-UPA\* with the metal contacts on the FFC facing up on the latch.
- 3) Connect the USB-Micro-B Cable to the 4D-UPA.
- 4) Lastly, connect the other end of the USB-Micro-B Cable to the computer.



*\*NOTE: It is strongly recommended that you keep the gen4-IB, gen4-PA or 4D-UPA connected to the FFC cable and the display module throughout your project development phase due to potential wear on the FFC connector. These connectors are not designed for hundreds of connect/disconnect cycles.*

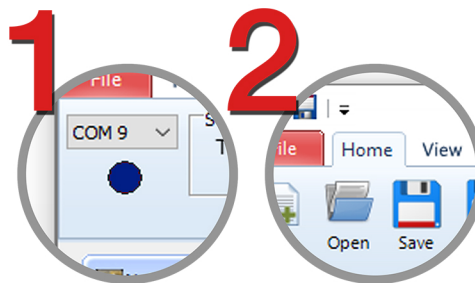
### Start Using Workshop4 IDE

- 1) Open Workshop4 IDE and create a new project.
- 2) Select the display module you're using from the list.
- 3) Select your desired orientation for your project.
- 4) Click next.
- 5) Choose a WS4 Programming Environment. Only the compatible programming environment for the display module will be enabled.



Follow steps 6a.1 to 6a.2 if you have the display module connected already

- 6a.1) Click on the COMMs tab with the display module connected, Comm Port will be automatically selected for you and it will show you a BLUE Dot with the name of the display module beside it.
- 6a.2) Click on the Home tab and start creating your project





Follow steps 6b.1 to 6b.4 to scan and detect your display module

- 6b.1) Click on the COMMS tab, select the COM port the display module is connected to from the dropdown list.
- 6b.2) Click on the RED Dot to start scanning for the display module. A YELLOW dot will show while scanning. Make sure that your module is connected properly.
- 6b.3) Lastly, a successful detection will give you a BLUE Dot with the name of the display module shown alongside it.
- 6b.4) Click on the Home tab to start creating your project.



Follow steps 6c.1 to 6c.4 if you use Graphical User Images (GUI) on the Display

- 6c.1. Connect a uSD Card to your computer.
- 6c.2. Go to HOME tab and click the COMPILE button. Workshop 4 will prompt you to select a drive to copy the image files to a uSD Card. After selecting the correct drive, click OK. *\*NOTE: If you are using Visi-Genie Environment, go to HOME tab and click the BUILD button.*
- 6c.3. Remove the uSD Card from your computer and insert it into the uSD Card slot on the gen4 HMI Display module. *\*NOTE: When the uSD card is not yet inserted, this message will appear on the gen4 HMI Display Module: "**Drive not mounted**".*
- 6c.4. After inserting the uSD card the GUI should appear on the gen4 Display.

