



# 4D SYSTEMS

*TURNING TECHNOLOGY INTO ART*

## *gen4* Interface Board

For all gen4 sizes (Picaso and Diablo16)

gen4-IB

DATASHEET

Document Date: 29<sup>th</sup> January 2016

Document Revision: 1.0

# Contents

---

1. Description .....	3
2. Example Hardware Connections .....	4
3. Legal Notice .....	5
4. Contact Information .....	5

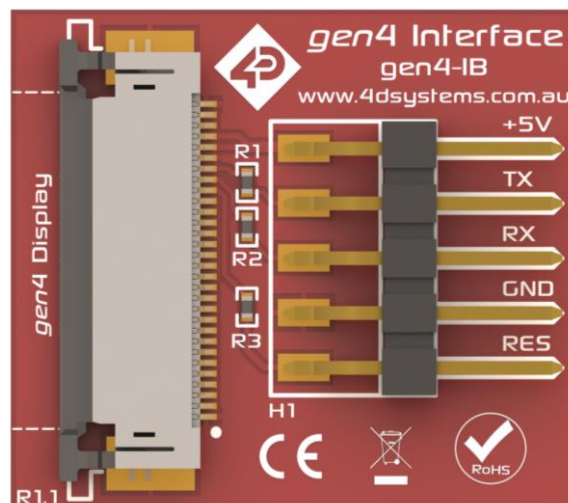
## 1. Description

This datasheet covers the gen4-IB (Interface board) which is compatible with all of the gen4 range of Intelligent Display modules which feature Picaso or Diablo16 graphics processors. It is included with every display module, and is a quick and easy way to interface to the gen4 range, without having to break out the signals from the 30-way FFC cable.

The gen4-IB is a simple interface that converts the 30-way FFC cable coming from your gen4 display module, into the common 5 signals used for programming and interfacing to 4D Systems products. The remaining signals from the gen4 display module are not accessible through this interface board. Please refer to the gen4-PA (Programming Adaptor) which is a USB programmer for the gen4 range of display modules, and also breaks out all of the signals from the display.

If you have existing 4D Products, and have a uUSB-PA5 or uUSB-PA5-II, or even a 4D Programming Cable, then you can use these programming devices via the gen4-IB to program the gen4 display module directly, without the need of a gen4-PA board.

The gen4-IB can be used to interface with 4D Programming devices, as mentioned above, for interfacing to a breadboard for prototyping, interfacing to Arduino and Raspberry Pi interfaces (see gen4 -AR and -PI kits), or for interfacing to virtually any host.



The gen4-IB has no processor, requires no drivers or any software. It is a simple interface only, converting the signals from the 30-way FFC cable from the display module, and breaking out the 5 important signals required for programming and basic interfacing.

More information can be found inside the datasheet for the specific display module being used. Please refer to the 4D Systems website and the product page of your chosen product, for more information.  
[www.4dsystems.com.au](http://www.4dsystems.com.au)

## 2. Example Hardware Connections

The following pictures illustrate how to connect the parts of a gen4 display module together, specifically utilising the gen4-IB. Note, the display module illustrated below is the gen4-uLCD-32DT.

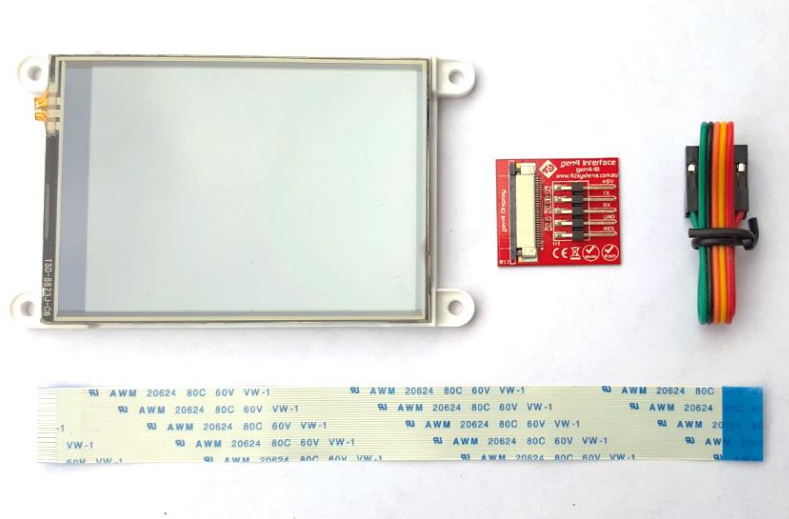


Figure 1. Typical components that come with a gen4 display.

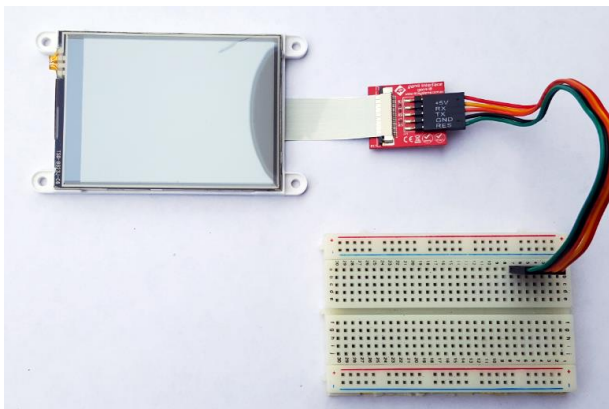


Figure 2. gen4 display connected to a breadboard via a gen4-IB and 5-way cable

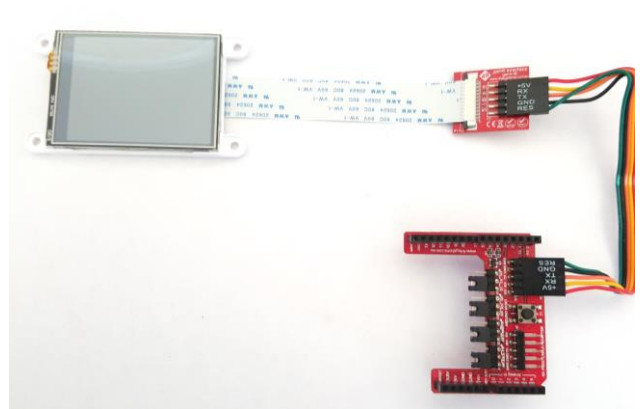


Figure 3. Components in the AR Kit connected together. The gen4-IB interfaces to the gen4 display module, and to the Arduino Adaptor Shield via our 5-way cable.

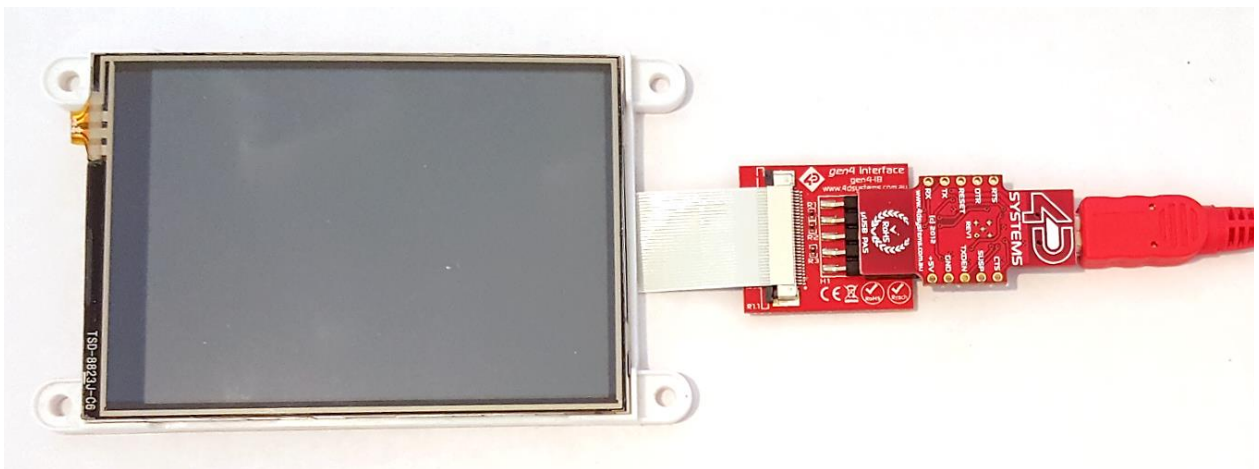


Figure 4. gen4 display, connected to the gen4-IB, with the uUSB-PA5 programming adaptor connected directly.

### 3. Legal Notice

#### Proprietary Information

The information contained in this document is the property of 4D Systems Pty. Ltd. and may be the subject of patents pending or granted, and must not be copied or disclosed without prior written permission.

4D Systems endeavours to ensure that the information in this document is correct and fairly stated but does not accept liability for any error or omission. The development of 4D Systems products and services is continuous and published information may not be up to date. It is important to check the current position with 4D Systems. 4D Systems reserves the right to modify, update or make changes to Specifications or written material without prior notice at any time.

All trademarks belong to their respective owners and are recognised and acknowledged.

#### Disclaimer of Warranties & Limitation of Liability

4D Systems makes no warranty, either expressed or implied with respect to any product, and specifically disclaims all other warranties, including, without limitation, warranties for merchantability, non-infringement and fitness for any particular purpose.

Information contained in this publication regarding device applications and the like is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications.

Images and graphics used throughout this document are for illustrative purposes only. All images and graphics used are possible to be displayed on the 4D Systems range of products, however the quality may vary.

In no event shall 4D Systems be liable to the buyer or to any third party for any indirect, incidental, special, consequential, punitive or exemplary damages (including without limitation lost profits, lost savings, or loss of business opportunity) arising out of or relating to any product or service provided or to be provided by 4D Systems, or the use or inability to use the same, even if 4D Systems has been advised of the possibility of such damages.

4D Systems products are not fault tolerant nor designed, manufactured or intended for use or resale as on line control equipment in hazardous environments requiring fail – safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines or weapons systems in which the failure of the product could lead directly to death, personal injury or severe physical or environmental damage ('High Risk Activities'). 4D Systems and its suppliers specifically disclaim any expressed or implied warranty of fitness for High Risk Activities.

Use of 4D Systems' products and devices in 'High Risk Activities' and in any other application is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless 4D Systems from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any 4D Systems intellectual property rights.

### 4. Contact Information

For Technical Support: [www.4dsystems.com.au/support](http://www.4dsystems.com.au/support)

For Sales Support: [sales@4dsystems.com.au](mailto:sales@4dsystems.com.au)

Website: [www.4dsystems.com.au](http://www.4dsystems.com.au)

Copyright 4D Systems Pty. Ltd. 2000-2016.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)  
Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)