



**4D SYSTEMS**  
*TURNING TECHNOLOGY INTO ART*

## **4D Raspberry Pi Serial Adaptor** **4D-Serial-Pi-Adaptor**

**DATASHEET**

**Document Date: 21<sup>st</sup> August 2014**  
**Document Revision: 1.2**

# Contents

---

1. Description.....	3
2. Specifications and Ratings.....	4
3. Legal Notice.....	5
4. Contact Information .....	5

## 1. Description

The 4D Pi Serial Adaptor (4D-Serial-Pi-Adaptor) is a simple Raspberry Pi\* adaptor designed to provide a convenient interface to attach 4D Systems display modules to the Raspberry Pi platform, without having to use jumper wires on the Raspberry Pi headers.

The 4D Pi Serial Adaptor is included in various 4D Systems -PI Module Packs, but can be purchased separately if a 4D Display Module is not required or is owned already.

Communication to the 4D Systems Display Modules is performed via the Raspberry Pi's serial port (RX and TX), and is provided to the user in a simple 5-pin interface, where a 5 way cable (included in the -PI Module Packs) can be attached between the adaptor and the Display Module.

Power for the display is supplied from the Raspberry Pi's 5V bus. No external power is required for the Display Module as all power is supplied from the Raspberry Pi, via the Adaptor. Please ensure the Raspberry Pi is powered with a suitably powered 5V power pack.

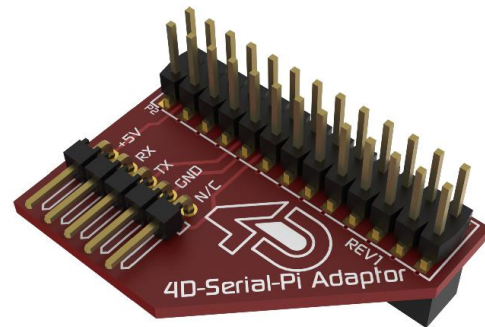
The 4D Serial Pi Adaptor is compatible with versions A, B and B+ Raspberry Pi's.

The 4D Serial Pi Adaptor is compatible with essentially all 4D Systems Intelligent Displays, primarily the following:

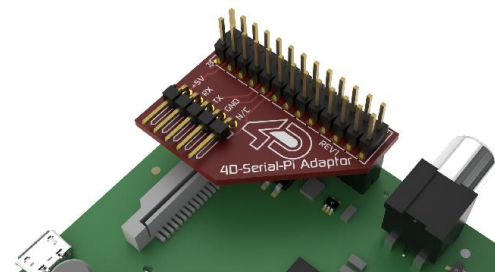
- uLCD-24PT
- uLCD-28PT
- uLCD-32PT
- uOLED-96-G1/G2
- uOLED-128-G1/G2
- uOLED-160-G1/G2
- uLCD-144-G1/G2
- uLCD-43 (All versions)
- uLCD-24-PTU
- uLCD-28-PTU
- uLCD-32-PTU
- uLCD-32W-PTU
- uLCD-35DT
- uLCD-70DT
- uLCD-220RD

The 4D Raspberry Pi Library is available to download from the 4D Systems website, [www.4dsystems.com.au](http://www.4dsystems.com.au)

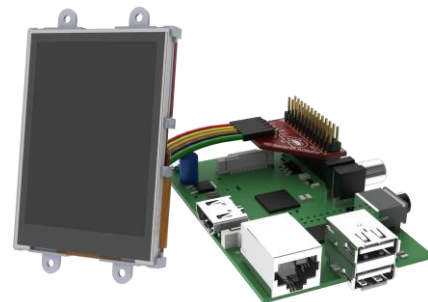
For information regarding the modules which connect to this 4D Pi Serial Adaptor, please refer to their product pages and Datasheets.



4D Pi Serial Adaptor



4D Pi Serial Adaptor attached to a Raspberry Pi



4D Pi Display Module Pack  
(4D Pi Serial Adaptor is one part of this pack)

**NOTE (\*):** Raspberry Pi remains the property of the Raspberry Pi Foundation. All references to the words 'Raspberry Pi' are Trademarks of the Raspberry Pi Foundation, and all references to 4D Systems modules/adaptors with the Raspberry Pi are based on compatibility with the Raspberry Pi Hardware, and do not indicate ownership of or to the Raspberry Pi in any way.

## 2. Specifications and Ratings

RECOMMENDED OPERATING CONDITIONS					
Parameter	Conditions	Min	Typ	Max	Units
Supply Voltage (VCC)		4.5	--	5.5	V
Operating Temperature		-10	--	+70	°C
UART Voltage	Raspberry Pi is 3.3V only. 4D System modules are 3.3V also but are 5V tolerant		3.3		V

ORDERING INFORMATION
<b>Order Code:</b> 4D-Serial-Pi-Adaptor
<b>Package:</b> 65mm x 50mm x 30mm
<b>Packaging:</b> Module sealed in antistatic foam padded 4D Systems Box

### 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: [support@4dsystems.com.au](mailto:support@4dsystems.com.au)

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. 2000-2014.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.