

# gen4-uLCD-24PT



## Datasheet

Revision 1.8

Copyright © 2024 4D Systems

Content may change at any time. Please refer to the resource centre for latest documentation.

# Contents

---

1. Description	4
2. Features	0
3. Hardware Overview	0
4. Hardware Interface - Pins	0
4.1. Serial Ports - TTL Level	0
4.2. General Purpose I/O	0
4.3. System Pins	0
4.4. I2C	0
5. Module Features	0
5.1. PICASO Processor	0
5.2. Audio	0
5.3. SD/SDHC Memory Cards	0
5.4. FAT16	0
5.5. Application PCB Support	0
5.6. RF / EMI Shielding Support	0
6. Display/Module Preparations	0
7. Hardware Tools	0
7.1. 4D-UPA Programming Cable/Adaptor	0
8. Programming Language	0
9. Workshop4 IDE	0
9.1. PmmC Programming	0
10. Display Module Part Numbers	0
11. FFC Cable	0
12. Starter Kit	0
13. Mechanical Details	0
14. Schematic Details	0
15. Specifications	0
16. Revision History	0

17. Legal Notice	0
17.1. Proprietary Information	0
17.2. Disclaimer of Warranties & Limitations of Liabilities	0

## 1. Description

The gen4 2.4" PICASO Integrated Display Module is part of the latest gen4 series of modules Designed and Manufactured by 4D Systems.

The gen4 series was designed specifically for ease of integration and use, with careful consideration for space requirements and functionality.

This specific gen4 module features a 2.4" colour TFT LCD, with resistive touch. It is powered by the well-known 4D Labs PICASO Graphics Processor, which offers an array of functionality and options for any Designer / Integrator / User.

The PICASO processor features include 13 customisable GPIO, 2 Serial ports, and a Master I2C interface.

The 2.4" PICASO Integrated Display Module features a TFT LCD Display and is capable of Touch Detection, microSD memory Storage, GPIO and Communications, along with multiple millisecond resolution timers, and Audio Generation.

The gen4 Series is 100% compatible with the Workshop4 IDE and its 4 different development environments, providing the User with a wealth of options for programming and controlling their system.

Anything designed to run on other 4D Systems displays modules featuring PICASO Graphic Processors can be run on this gen4 Integrated Display Module, with little or no required modifications. Please contact 4D Systems Support Team for assistance if migrating from a previous model.

The gen4 series of Integrated Display Modules features a 30-pin ZIF/FFC/FPC socket, designed for a 30-pin FPC cable, for easy and simple connection to an application or mother board, or for connecting to accessory boards for a range of functionality advancements.

The gen4 series of modules has been designed to minimise the impact of display-related circuitry and provide a platform suitable for integration into a product. Application boards can sit flush on the back of the gen4 if required, as the display-related electronics sit inside the plastic mounting base, leaving the application board surface clear for User circuitry.