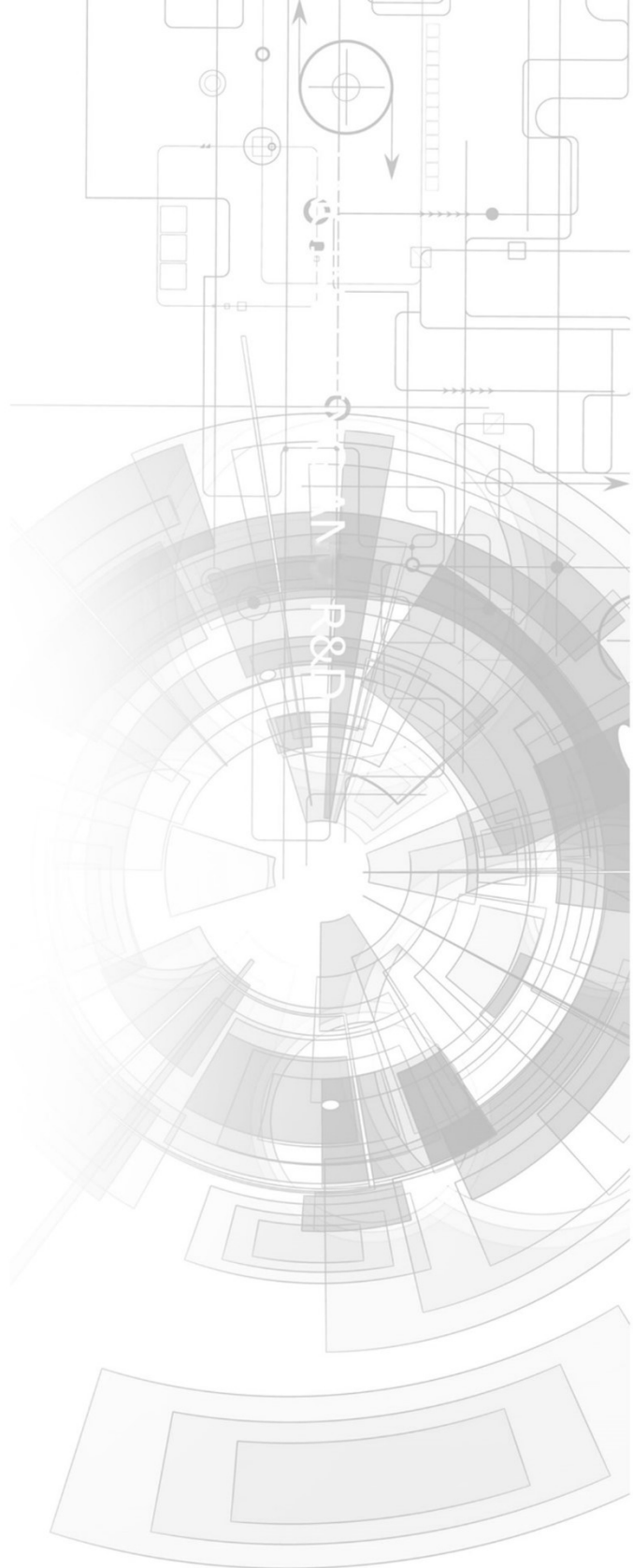


uLCD-35DT



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. Unmounted Connector	0
4.2. Serial Ports - TTL Level	0
4.3. General Purpose I/O	0
4.4. System Pins	0
4.5. Alternate Pin Function Overview	0
4.6. SPI	0
4.7. I2C	0
4.8. Pulse Out	0
4.9. PWM Out	0
4.10. Pin Counter	0
4.11. Quadrature In	0
4.12. Analog Inputs	0
5. PmmC/Firmware Programming	0
6. Module Features	0
6.1. Display - 3.5" TFT Touch Screen	0
6.2. DIABL016 Processor	0
6.3. Audio	0
6.4. SD/SDHC Memory Cards	0
6.5. FAT16	0
7. Display Precautions	0
8. Hardware Tools	0
8.1. Programming Cable/Adaptor	0
9. Programming Language	0
10. Workshop4 IDE	0

11. Starter Kit	0
12. Mechanical Details	0
13. Schematic Diagram	0
14. Specifications	0
15. Revision History	0
16. Legal Notice	0
16.1. Proprietary Information	0
16.2. Disclaimer of Warranties & Limitations of Liabilities	0

1. Description

The uLCD-35DT is a high-resolution 480x320 pixel 3.5" Intelligent Display Module powered by the 4D Systems' DIABLO16 Graphics Processor.

The uLCD-35DT is designed with versatility in mind, allowing for either cable loom connection* or direct PCB connection to a Host, enabling a wider range of customers to take advantage of this display module.

Driving the display and peripherals is the DIABLO16 processor, a very capable and powerful chip that enables stand-alone functionality, programmed using the 4D Systems Workshop 4 IDE Software. The Workshop IDE enables graphic solutions to be constructed rapidly and with ease due to its design being solely for 4D graphics processors.

The DIABLO16 Processor offers considerable FLASH and RAM upgrades over the PICASO processor, and also provides mappable functions such as I2C, SPI, Serial, PWM, Pulse Out, and Quadrature Input, to various GPIO, and also provide up to 4 Analog Input channels.

The display module has an array of features including PWM for Sound, Touch Detection, micro-SD memory storage, general-purpose I/O including Analog Inputs, multiple TTL Serial, I2C and SPI channels and multiple millisecond resolution timers, amongst many more features.

Anything that has been designed in the past to run on a PICASO Processor can theoretically run on this DIABLO16 Module with minor changes. Please ensure you contact the 4D Systems' support team if unsure if upgrading from a PICASO product and wanting to design with or change over to this uLCD-35DT Module.

Note

Cable loom connection possible on special orders only, as the cable loom connectors are not populated by default on the uLCD-35DT and only with special orders subject to a MOQ. These are not stocked and are available on special order requests only. Please contact the 4D Systems Sales department if you require customised modules with these headers populated.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[4D Systems:](#)

[uLCD-35DT](#) [uLCD-35DT-AR](#) [SK-35DT-AR](#) [SK-35DT](#) [uLCD-35DT-Pi](#) [SK-35DT-Pi](#)