

Smart Display Module® 5-inch

Model: DL-DM500i



- ◆ Appliances & Vending
- ◆ Control & Monitoring
- ◆ Marine & Trucking
- ◆ Laboratory Equipment
- ◆ Food Processing
- ◆ Healthcare & Medical
- ◆ Harsh Environment

The most comprehensive all-in-one touch display solution on the market

Our Smart Display Modules (SDMs) are slim attractive all-in-one touch display computers ready for use in your application. The SDMs are designed for rapid implementation into industrial equipment, appliances, vending machines, monitoring equipment or other applications.

The SDM consists of a color display, a projected capacitive touch screen and an embedded computer mounted into an aluminium frame and wrapped in a robust stainless steel housing. SDMs come with many standard interfaces and are configured with Linux ready for loading and running your applications. SDMs provide a cost effective and fast track to equip your product with state of the art touch based user interfaces and enhanced embedded computing power.

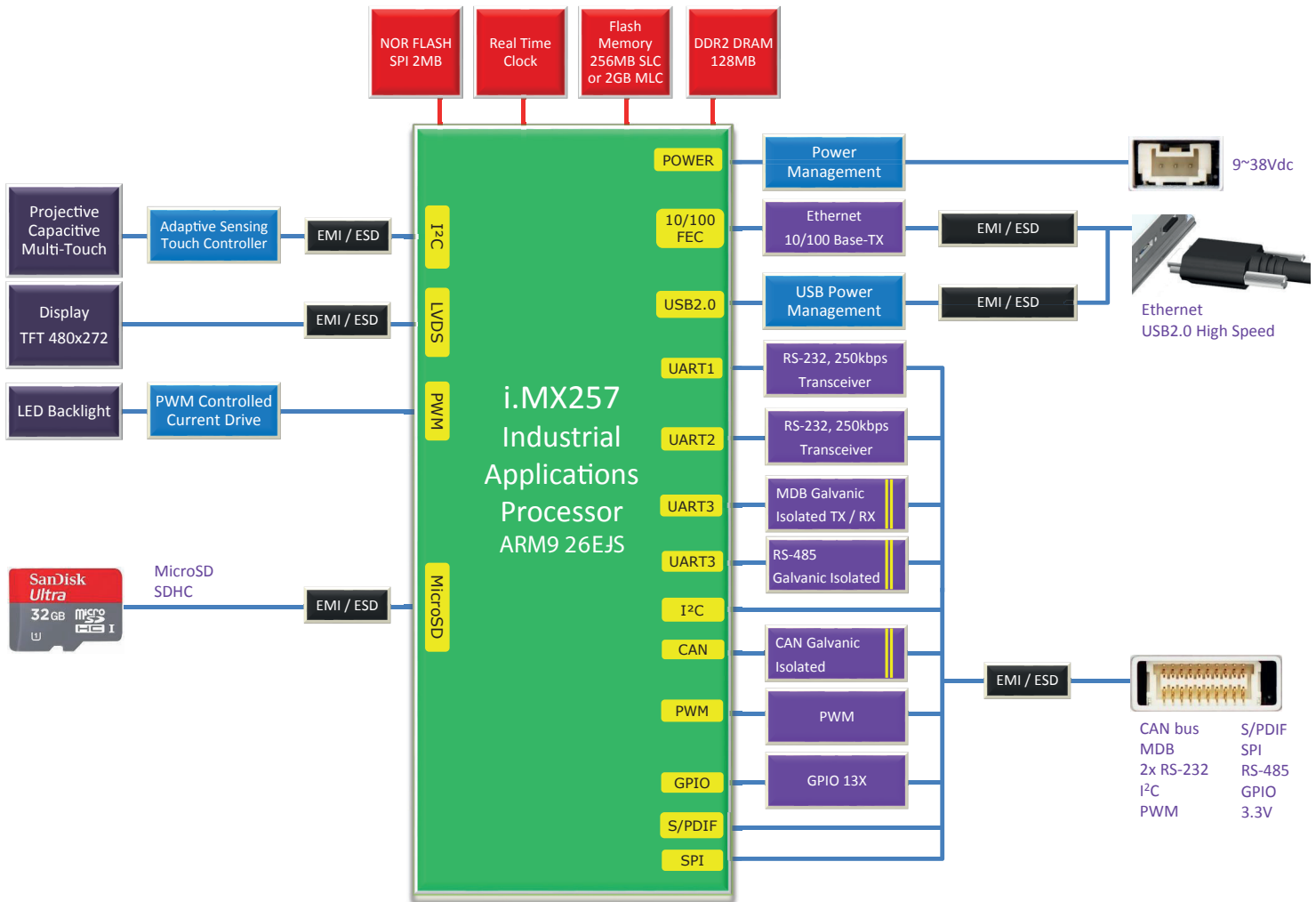
- Industrial strength, reliable, production ready hardware.
- Fast time to market, easy integration and low development risk.
- Guaranteed 7 years supply.

Key Features

- Display Module with touch screen, color display and ARM-based computer ready for integration in custom applications.
- Aluminium Frame with stainless steel backpanel.
- Projected capacitive multi-touch or resistive single-touch screen.
- TFT LCD display with LED backlight in different sizes, viewing modes & resolutions.
- A range of high reliability standard interfaces.
- Software Board Support Package included, ready for application development.
- Standard and tailored mechanical mounting and integration solutions.
- Simple addition of custom interface extensions.
- Optional optically bonded 4mm safety glass solutions available.
- Supported by a highly skilled engineering team.

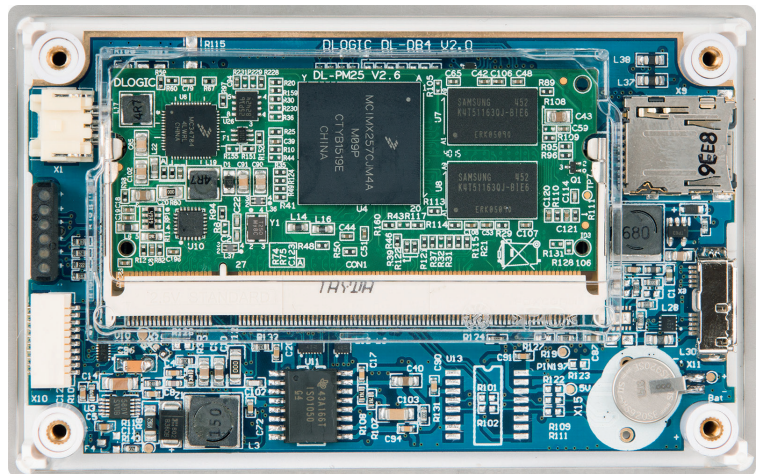


Smart Display Module - Block Diagram Model: DL - DM500i

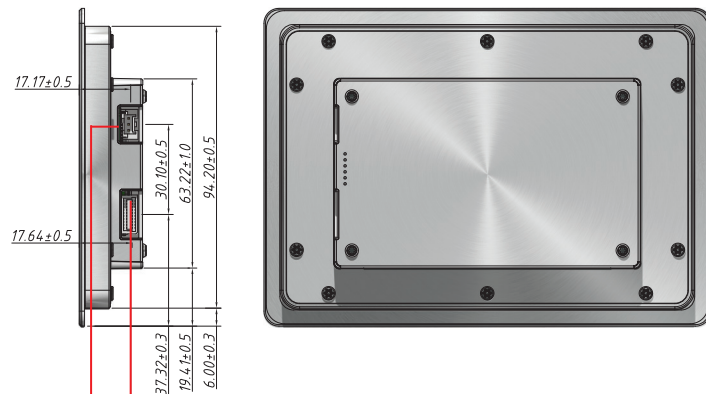
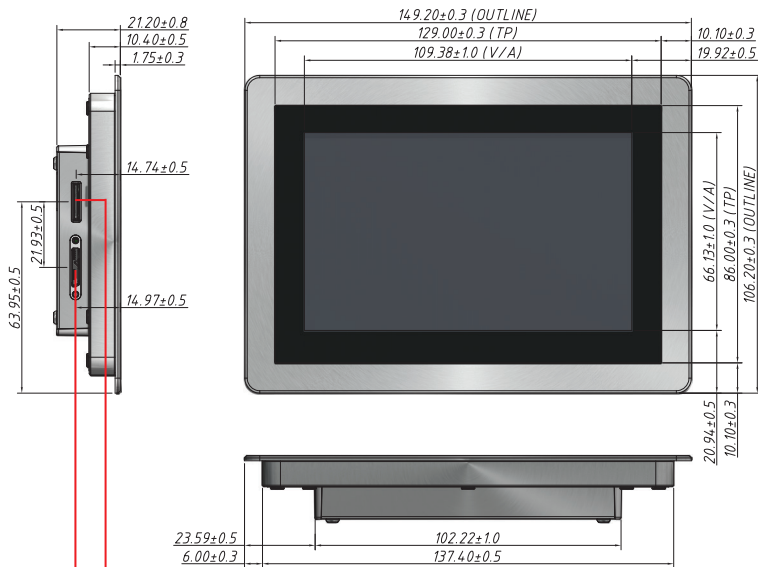


DL-DM500i

- Aluminium Mounting Frame
- Optional Stainless Steel Frame (S31600)
- Stainless steel protective housing
- 5" TFT LCD 800x480 with LED backlight
 - Brightness (incl. touch): 550 cd/m²
 - Ultra-wide viewing angle
- Projected Capacitive multi-touch screen
- Landscape or Portrait Orientation
- NXP / Freescale Industrial i.MX257 ARM9 @ 400 MHz
- 128MB DDR2 SDRAM (Industrial)
- 256MB SLC or 2GB MLC NAND FLASH (Industrial)
- Battery backed real time clock (200 days)
- Standard interfaces: Ethernet, USB, 2x RS-232, I²C, Isolated CAN, Isolated MDB, Isolated RS-485, PWMs, GPIOs, MicroSD, S/PDIF, SPI
- Optional optically bonded 4mm safety glass Integrated in mounting frame for front mounting or protruded for rear mounting
- Fully functional board support package (BSP)
 - Debian Linux including access to all standard packages
 - Driver support for all interfaces
 - QT5 GUI application development support

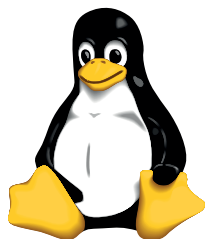


- Ready to go Debian Linux virtual machine (VM) application development environment
 - Cross compile tools
 - QT5 with Integrated Development Environment
 - Demo applications with source code
 - DM remote boot options support



Micro SDHC
Screwlocked connector
Ethernet/USB

Secure locking connector
RS-232/RS-485/I²C/CAN/MDB/SPI/PWM/GPIOs/SPDIF/3.3V
Secure locking connector 9~38Vdc



Display Size	
Size	5 inch
Type	LCD TFT, Ultra-wide viewing
Mode	Transmissive
Resolution	800 x 480 pixels
Backlight	550 cd/m ² (incl. touch screen)
Colors	18-bit RGB
Orientation	Landscape or Portrait
Touch Screen	
Type	Projected Capacitive [Option Resistive]
Touch	Multitouch
CPU	
Type	NXP / Freescale ARM926EJ-S i.MX257 (Industrial)
Clock/Frequency	400 MHz
Memory	
SDRAM	128 MB DDR2 SDRAM (Industrial)
FLASH	2GB MLC NAND-Flash (Industrial)
SPI NOR Boot FLASH	2 MB (Industrial)
MicroSD	SDHC
Features	
Real Time Clock	Battery backed Real Time Clock (min. 200 days)
Interfaces	
Network	1x 10/100 MBit/s Ethernet
Asynchronous Serial Interfaces	3x RS-232
Synchronous Serial Interface	1x I ² C (400 Kbit/s) [Configurable]
USB	1x USB 2.0 Hi-Speed OTG
CAN	1x CAN 2.0B Galvanic Isolated
MDB	1x MDB Galvanic Isolated [HW Option]
SPI	1x SPI [HW Option]
PWM	1x PWM, 12-bit, 125kHz [Configurable]
RS-485	1x RS-485 Galvanic Isolated [HW Option]
GPIOs	Up to 13x GPIOs [Configurable]
Software	
Linux	Debian [access to all std packages]
Application Environment	QT5
Mechanical	
Frame	Aluminium Frame [Option: Stainless Steel Frame S31600]
Backplate	Stainless steel
Cover Glass	1.1mm Chemically Strengthened Glass [Option: 4mm Safety Glass UL751]
Power	
Supply & Consumption	12V, 0.33A, 4W [9Vdc ~ 38Vdc] 5V, 0.8A [Option]
Environmental Conditions	
Storage Temp	-30 ~ +80°C
Operating Temp	-20 ~ +70°C
Relative Humidity	95 % (non condensating)
Device Dimensions	
Height x Width x Depth	149.2 x 106.2 x 21.2 mm
Weight (g)	310g

Need a custom solution?



101451 DL-DM500i with Integrated Safety Glass, front mount

The Smart Display Module hardware and software is optimized for quick adaptation and customization to specific product requirements. When a standard SDM will not do our engineering team is at your service to provide customized SDM solutions tailored for your application's needs. When engineering is completed we manufacture and assemble your SDM version to the developed custom specifications. Typical customizations include special mechanical integration adaptations and mounting solutions, display alterations (type, size, resolution, backlight intensity, viewing angle), additional external interfaces, software board support enhancements (drivers, protocols, libraries) and software application development including graphical user interface design.

To support your selection, adaptation and integration of an SDM in your solutions we provide a range of support services including:

- **SDM selection**

We provide an evaluation kit including the DL-DM500i SDM with demo applications and development tools.

- **SDM customization**

We provide specialist engineering resources to adapt / customize the SDM to satisfy your application requirements.

Our development services include mechanical and electronics engineering, and software systems and applications development.

- **SDM manufacturing & support**

We provide cost efficient high quality manufacturing services and support during your entire product lifecycle. Our factory is specialized in industrial and robotics product manufacturing and is certified for ISO9001, QS9000, ISO14000, ISO14001, OHSAS18000, UL, TUV and TS16949-1/2.

Order Information

Part No.	Description
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100946	DEVELOPMENT KIT DISPLAY MODULE DL-DM500i ALU FRAME TFT 5.0" UWAT 550cd/m ² CAP TOUCH FRONT MOUNT
100828	PRODUCT DISPLAY MODULE DL-DM500i ALU FRAME TFT 5.0" UWAT 550cd/m ² CAP TOUCH FRONT MOUNT
101451	PRODUCT DISPLAY MODULE DL-DM500i ALU FRAME INTEGRATED SAFETY GLASS TFT 4.3" UWAT 550cd/m ² CAP TOUCH FRONT MOUNT
100933	PRODUCT DISPLAY MODULE DL-DM500ir ALU FRAME TFT 5.0" UWAT 550cd/m ² 4-WIRE TOUCH FRONT MOUNT

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Rear Mount Frame with
4mm UL751 Safety Glass