

# CANdisplayBOX-M™ - Series

Fanless, Flexible Windows-based CANbus Controller with 6.5" - 15.0" Display

## Technical Description

**CANdisplayBOX™** – based on Janz AG's **emVIEW™ Series** – is a versatile, compact embedded control system particularly suited to embedded CANbus control applications. Additionally these computing systems have integrated displays with touchscreen.

Using high-reliability components, a wide variety of hardware and software options are available in the tiny ARM based **CANdisplay-BOX™**. Display dimensions start at 6.5", other displays with up to 15.0" are optionally available. A 19.0" display solution will follow soon.

64 MB SD-RAM is sufficient to control Windows CE operating systems, while 512 MB industrial grade CompactFlash card storage can easily be upgraded. Power consumption is low, so reliable cooling is completely passive.

With standard interfaces of two 10/100BaseT Ethernet, two USB2.0, one RS232 and one CANbus, this versatile controller system has remarkably small dimensions.

The widely-used embedded operating system Windows CE 5.0 comes standard, while other choices are possible and can be selected to perfectly match customer needs.

Every **CANdisplayBOX™** system is 100% tested and is customizable even in small quantities, with a guaranteed lifetime availability of 5 years – essential for medical and military equipment design.

A wide range of operating systems is offered, with design-team hardware and software support. If required, customer-specific software can be preloaded.

For more details, please contact Saelig or Janz offices.



## Features / Technical Specifications

Display 6.5" / 8.4" / 12.1" / 15.0"

- 6.5" VGA / 8.4" SVGA / 12.1" SVGA / 15.0 XGA TFT LCD display
- 6.5" & 8.4" LED backlight (MTBF ~ 80,000hrs.)
- 12.1" & 15.0" CCFL backlight ( MTBF ~ 40,000hrs)
- resolution 640 x 480 / 800 x 600 / 800 x 600 / 1024 x 768
- contrast ratio 400:1 / 250:1 / 350:1 / 700:1
- luminance 400 / 400 / 350 / 350 cd/m<sup>2</sup>

## Touchscreen

- resistive touchscreen
- 4-wire connector
- RS232 controlled  
(one internal RS232 port will be used for touchscreen)

## System

### Processor

- Intel Xscale IXP420 with 400 MHz
- L1 cache (32 kB instruction, 32 kB data)

### Memory

- system memory 64 MB SD-RAM
- Boot Flash 2MB, with boot loader
- NVRAM 32 kB (auto-backup to EEPROM, no battery needed)
- internal storage medium Compact Flash socket, Type I/II

### Clocks and Timers

- Timekeeper (TOY); part of the NVRAM, requires external battery
- Watchdog timer

### Interfaces

- dual 10/100 MBit/s Ethernet on front panel
- dual 4-wire UART on internal connector
- dual USB (v2.0), with 500mA power supply capability

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## Video

- graphic controller Silicon Motion SM501
- 8 MB video memory (separate from main memory)
- single channel LVDS on internal connector

## Expansion

- iX-Bus 8/16 bit interface for IO and low speed peripherals
- expansion PCI bus on internal expansion connector

## CAN

- SJA 1000 CAN Controller
- Physical Layer ISO/DIS 11898, isolated from logic
- bus termination is software switchable, 120 Ω resistor

## Power Supply

- input 14 ... 32V<sub>DC</sub>
- power consumption max. 7W

## Physical

- ambient operating temperature: 0°C ... 50°C
- non-operating temperature: -20°C ... 75°C
- humidity 0% ~ 80%, non-condensing
- Aluminum front panel with front foil for corporate design (standard is Janz' design)

- **CANdisplayBOX-M6™**  
dimensions (w x h x d): 7.6" x 6.3" x 2.0"  
display cut-out dimensions (w x h): 6.8" x 5.6"  
weight approx. 3.0 kg (6.6 lb)
- **CANdisplayBOX-M8™**  
dimensions (w x h x d): 9.2" x 7.5" x 2.2"  
display cut-out dimensions (w x h): 8.5" x 6.7"  
weight approx. 3.2 kg (7.0 lb)
- **CANdisplayBOX-M12™**  
dimensions (w x h x d): 12.6" x 10.2" x 4.4"  
display cut-out dimensions (w x h): 11.8" x 9.5"  
weight approx. 4.6 kg (10.0 lb)
- **CANdisplayBOX-M15™**  
dimensions (w x h x d): 15.1" x 12.1" x 4.7"  
display cut-out dimensions (w x h): 14.3" x 11.3"  
weight approx. 5.6 kg (12.3 lb)

## Supported Operating System

- Windows CE 5.0

## Software Options on request

- CoDeSys Soft PLC Runtime Environment, pre-installed
- CoDeSys Soft PLC Target Visualization, pre-installed
- CoDeSys Soft PLC Web Visualization, pre-installed
- CoDeSys Soft PLC Soft Motion, pre-installed
- Different Operating System support



## Hardware Options on request

- I/O expansion modules
- Additional connectors for CANbus/ RS232 etc.
- Custom specific front panel design
- Custom specific system modifications

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**CANdisplayBOX-M6™ KD-SAE-91060**  
 6.5" Display with resistive Touch Screen  
 Intel Xscale IXP 420 with 400 MHz and 64 MB SD-RAM  
 1 x CAN/CANopen port, 1 x RS232 port  
 512 GB CompactFlash Medium  
 Windows CE 5.0, pre-installed

**CANdisplayBOX-M8™ KD-SAE-91080**  
 8.4" Display with resistive Touch Screen  
 Intel Xscale IXP 420 with 400 MHz and 64 MB SD-RAM  
 1 x CAN/CANopen port, 1 x RS232 port  
 512 GB CompactFlash Medium  
 Windows CE 5.0, pre-installed

**CANdisplayBOX-M12™ KD-SAE-91120**  
 12.1" Display with resistive Touch Screen  
 Intel Xscale IXP 420 with 400 MHz and 64 MB SD-RAM  
 1 x CAN/CANopen port, 1 x RS232 port  
 512 GB CompactFlash Medium  
 Windows CE 5.0, pre-installed

**CANdisplayBOX-M15™ KD-SAE-91150**  
 15.0" Display with resistive Touch Screen  
 Intel Xscale IXP 420 with 400 MHz and 64 MB SD-RAM  
 1 x CAN/CANopen port, 1 x RS232 port  
 512 GB CompactFlash Medium  
 Windows CE 5.0, pre-installed

For further information and options call **1-888-7SAELIG**.

## Contact Information

**Saelig Company, Inc.**  
 1160-D2 Pittsford-Victor Rd.  
 Pittsford, NY 14534 USA

Phone +1 585-385-1750  
 Fax +1 585-385-1768  
 E-Mail [info@saelig.com](mailto:info@saelig.com)  
 Web [www.saelig.com](http://www.saelig.com)  
[www.janz.com](http://www.janz.com)