

# WEcabin Displays

Intelligent HMI Solutions from Würth Elektronik ICS



## WEcabin Display i7

**WEcabin Display i7** is an intelligent HMI solution for mobile machines and commercial vehicles developed by Würth Elektronik ICS.

### Description

- Standard display with advanced options
- Robust housing for the use in tough environmental conditions
- High optical performance ensures good readability in all lighting conditions
- Easy to customize for individual design of graphical user interface (GUI) with WEcabin Designer

### Technical Data

General information	
Processor	ARM® Cortex®-A8
RAM	512 MB DDR3
Clock frequency	Up to 1 GHz
Flash memory	4 GB
EEPROM	4 kB
Real time clock	Rechargeable lithium battery
Buzzer	Yes
Sensors	Accelerometer, temperature sensor, pressure sensor
Operating temperature	-30 °C to +85 °C
Storage temperature	-40 °C to +95 °C
Ingress protection	IP66
Operating voltage	8 V to 32 V DC
Power consumption	5 to 10 W
Stand-by mode consumption	<1 mA
Housing	POLIMID B 30 GB NERO UV
Connector	AMP SUPERSEAL 34 Way
Dimensions max	226 x 147 x 54 mm
Weight	0.980 kg

### Interfaces

CAN Bus	CAN 2.0B	11/29 Bits extended address identifier
	Baud rate	50 kBit/s to 1000 kBit/s (250 kBit/s default value)
Ethernet	10/100 Mbit/s	
USB	2.0 Host full speed 12 MB	
RS-232 / RS-485	up to 150 kBd	
Wi-Fi	802.11n	
Bluetooth	BT4.0	

### Inputs / outputs overview

4	Digital inputs	0-12 V DC discrete digital; 2 Hz to 1 kHz counter (CPU timer)
4	Digital outputs	digital 500 mA

### Human interface

Display	7" TFT LCD 16:9
Resolution	800x480 WVGA
Backlight	LED
Brightness	500 cd/m <sup>2</sup>
Orientation	Landscape or portrait programmable mode
Colors	64 K /16 bit
Contrast ratio	600:1

### Physical inputs

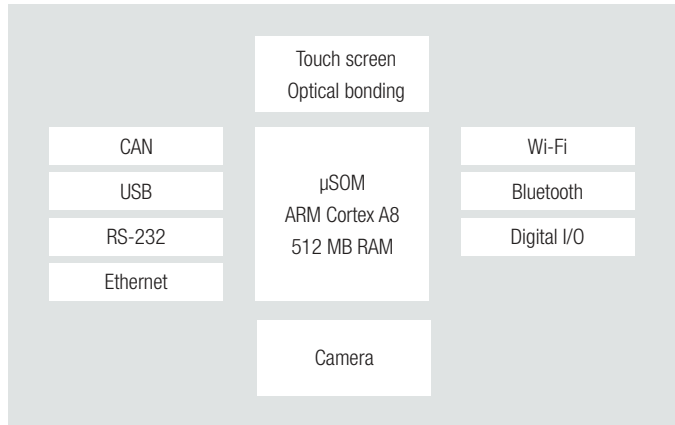
Touch Interface	Capacitive
Buttons	10 programmable buttons

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## Hardware map



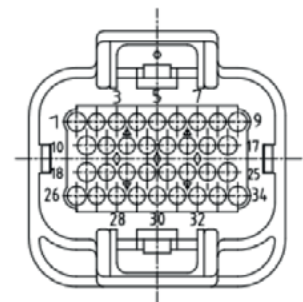
WEcabin Display rear view

## Pin assignment

Interface	Pin number	Signal	Description
Power supply	09	VBAT	Power supply battery
	17	V_SW	Ignition voltage
	25	GND24	Power supply ground
	34	SHIELD	Shield protection
Ground	01, 02	GND	Ground
CAN 1	21	CAN1_H	CAN 1 High
	30	CAN1_L	CAN 1 Low
CAN 1	20	CAN2_H	CAN 2 High
	29	CAN2_L	CAN 2 Low
Serial RS-232 / RS-485	16	SER_GND	Serial port ground
	24	RXD	Serial port received data
	33	TXD	Serial port transmitted data
Ethernet	05	RX_N	Receive negative
	06	RX_P	Receive positive
	07	TX_N	Transmit negative
	08	TX_P	Transmit positive
USB 1	04	USB1_GND	USB 1 ground
	15	VBUS1	USB 1 +5 VDC
	23	USB1_DM	USB 1 Data minus
	32	USB1_DP	USB 1 Data plus
USB 2	13	USB2_GND	USB 2 ground
	14	VBUS2	USB 2 +5 V DC
	22	USB2H_DM	USB 2 Data minus
	31	USB2H_DP	USB 2 Data plus
Digital input	02	IN2	Digital input 2
	03	IN1	Digital input 1
	10	IN4	Digital input 4
	11	IN3	Digital input 3
Digital output	18	OUT1	Digital output 1
	19	OUT2	Digital output 2
	27	OUT3	Digital output 3
	28	OUT4	Digital output 4
Not connected	26	NA	Not used



AMP SUPERSEAL 34 Way Connector  
Part no. 4-1437290



Pinout of the connector

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## Programming environment

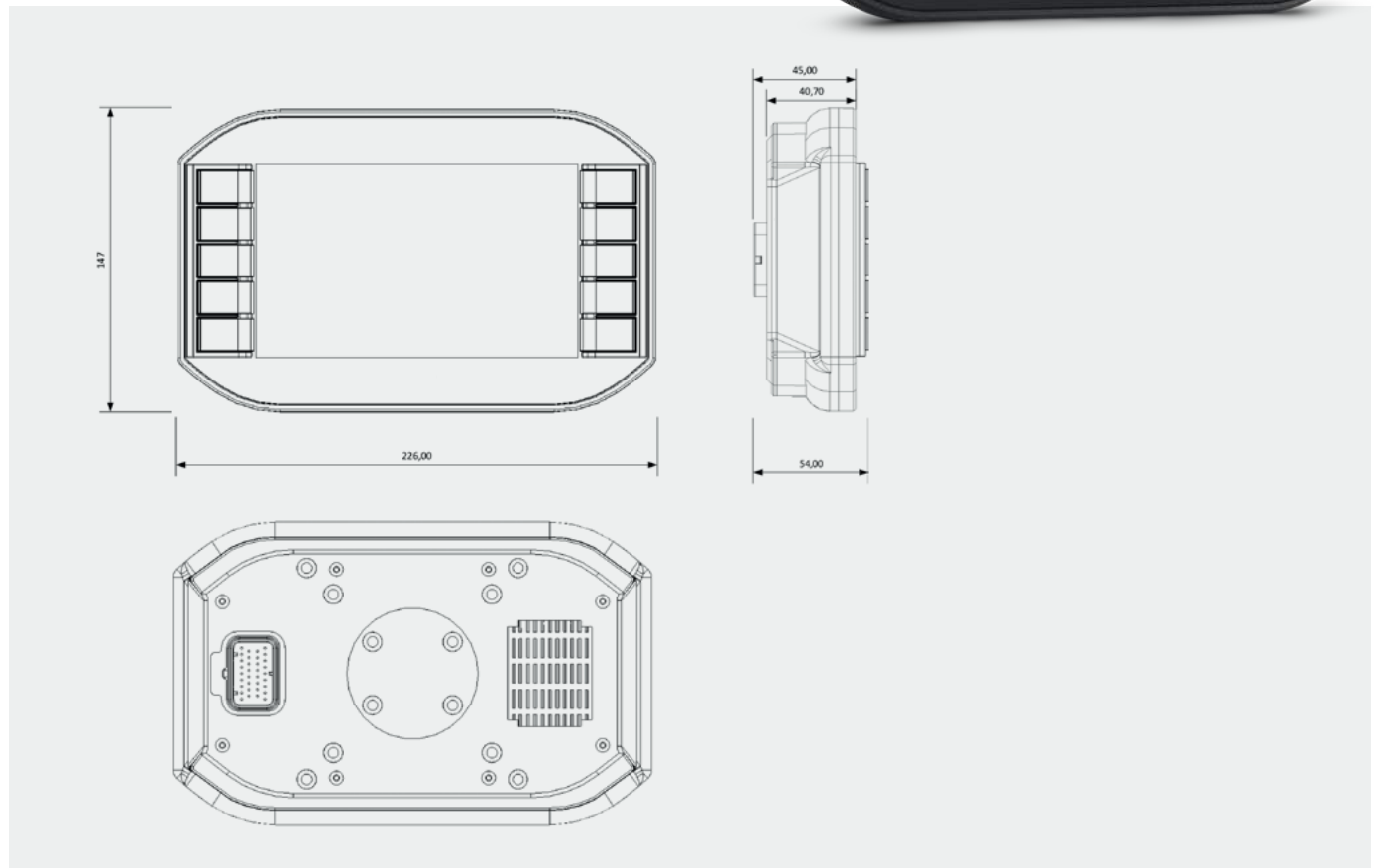
Software	
Operating system	Linux
Application programming	WEcabin Designer

## Qualification

Test methods	
CE-Compliance	EN 13309: Construction machinery – Electromagnetic compatibility of machines with internal electrical power supply
	EN ISO 14982: Agricultural and forestry machinery - Electromagnetic compatibility – Test methods and acceptance criteria
E1- Type approval	ECE R10 Rev.5
Environment reliability	ISO 16750 F-L-H-G-B-IP66
Ingress protection	IP 6K6 acc. to ISO 20653

## Dimensions

Dimensions	
Length	226 mm
Height	147 mm
Width	54 mm



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### Additional options

- Versions with and without programmable keys
- Versions with and without capacitive touch screen
- Versions with and without Wi-Fi and Bluetooth interfaces



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