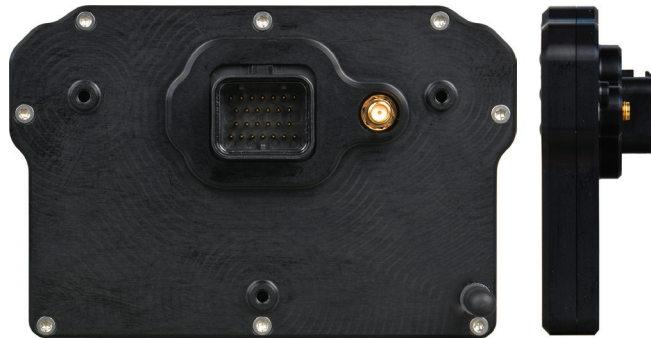
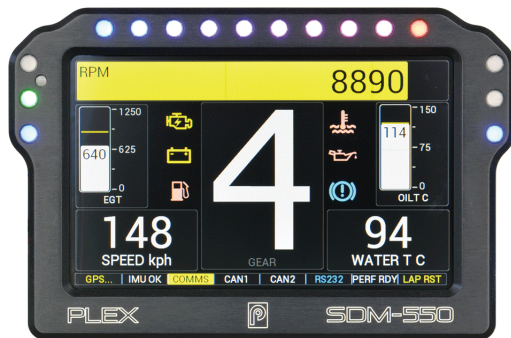


# PLEX SDM-550<sup>®</sup>

## 5" Pro-level Display Logger with built-in 25Hz GNSS



### Description

The PLEX SDM-550<sup>®</sup> is 5" All-in-One Pro-level Display Logger for Demanding and Quality Driven Customers. Housed in a light-weight CNC aluminum enclosure with IP67 protection, the SDM-550 features a 1k cd bright IPS TFT display and comes with our renowned proprietary clean UI that places emphasis on effectiveness vs impression. A built-in 25Hz GNSS module with dead reckoning ensures accurate lap timing even in low signal conditions. Configuration via WiFi, CAN BUS or USB is very fast & intuitive and USB data logging diminishes file downloading time. The SDM-550<sup>®</sup> runs on a powerful multi-core processor which guarantees high performance even with the most complex configurations.

### Applications

- Automotive
- Motorcycle
- Snowmobiles
- Marine
- Off-road

### Key Features

- ▶ 5" High-brightness & contrast IPS Display with broadband anti-reflective glass
- ▶ Ultra compact & rugged enclosure with IP67 protection
- ▶ Powerful multi-core processor
- ▶ Fully configurable CAN BUS, I/Os and UI
- ▶ Fast & Easy WiFi configuration
- ▶ Unlimited USB data-logging
- ▶ Built-in 25Hz GNSS / 100Hz IMU modules
- ▶ Integrated Performance Meter Functionality

### Price

1.749 EUR

### Technical Specifications

Inputs	
Analog/Digital/Frequency 0-5V	4
Analog/Digital/Frequency 0-16V	4
Switch/Button Inputs	2
Outputs	
AUX High Side	2 (lim 3A)
LEDs	16 RGB
Communications	
Can Bus Ports	2
RS-232 Ports	1 (shared with CAN2)
Lin Bus Ports	1
USB	1 (for config. & logging)
WiFi	for configuration
Internal Sensors	
Real Time Clock	with battery backup
Device/Sensor voltage monitor	+12V supp./+5V sensor supply
Device Temperature monitor	Yes
Ambient light sensor	Yes
Accelerometer/IMU	built-in/100Hz
GPS / GNSS	built-in (25Hz)
Data Channels	
Max Data Channels	256
Max Flag Channels	256

### Technical Specifications - Continued

#### Data-logging continued

Memory	USB Flash Drive
Log Rate Max	100Hz
Engine Log	Yes
Alarms Log	Yes
Lap Times log	yes
Performance Times log	yes

#### Calculations

Lap Times	Yes
Acceleration Performance	Yes
Engine Power & Torque	Yes
Math Channels	16
Trip Meters	4

#### Screen

Type	RGB TFT IPS wide temp
Size	800 x 480 pixels
Brightness	900cd
Refresh rate	50Hz
Display glass	ARC high-efficiency broadband anti-reflection

#### User Interface

# of Pages	24
Custom page design	yes
Colour themes	yes

#### Electrical Data

Supply Voltage Range	9-30V DC
Current Consumption	max. 2A at 12V

#### Operating Conditions

Temperature Range	-20 to +60 degC
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#### Physical

Connectors	TE Series 26 pins
Dimensions mm	width: 145, height: 95, depth 16/xxmm
Weight	315g
Material	CNC machined aluminum
Sealing / Ingress Protection	IP67 - dust tight, protected against water immersion

### Improvements vs discontinued SDM-500

- Fully re-designed electronics and hardware
- More powerful processor with multi-core capacity
- Improved TFT display / better viewing angle
- Enhanced design / form factor
- Weather and dust protection (IP67)
- Fully configurable RGB LED lights
- Automotive grade sealed connector with more pins
- Significantly more default inputs and outputs
- Enhanced 25Hz GNSS module
- 100Hz Inertial Measurement Unit
- Improved graphics and customisation
- Enhanced electrical protection

### Product Versions

<b>SDM-550-DLG</b>	Display with USB logging and built-in 25Hz GNSS/100Hz IMU modules
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### Control Add-ons

<b>BLKM-4K</b>	4button weather sealed keypad with configurable CAN BUS
<b>BLKM-PT</b>	6button weather sealed with rotary controller

### What's In The Box

■ Display	■ USB cable
■ Loom connector	■ USB Flash Drive 32GB
■ Pins /Plugs	■ GPS Antenna

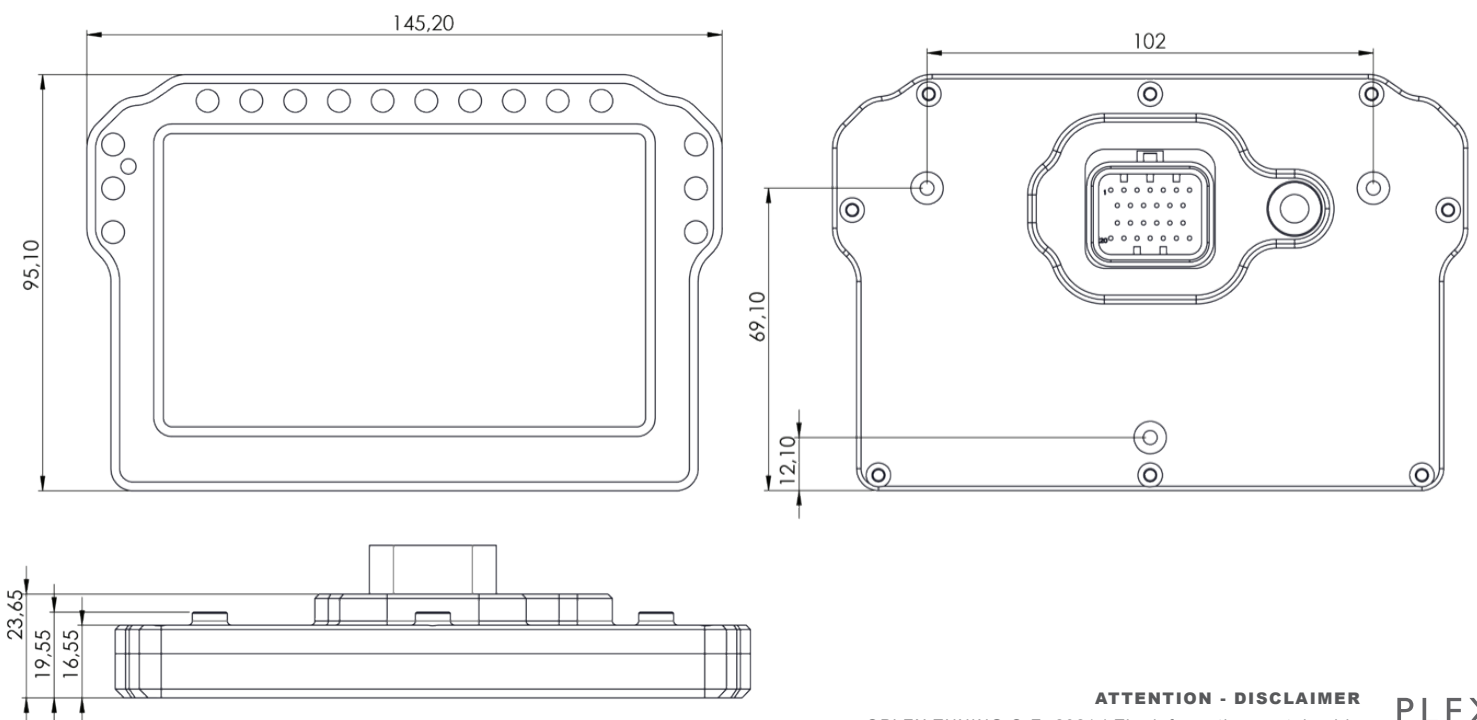
### Software

<b>PLEX Device Manager V2</b>	configuration	free
<b>PLEX PDA-WIN</b>	data analysis	free
<b>PLEX PDA-WIN-PRO</b>	data analysis	paid

## Indicative List of Compatible After Market ECU Brands &amp; CAN Devices

Fully configurable CAN Receive & Transmit	MAGNETI MARELI
AIM	MAXX ECU
BLINK MARINE	MBE
BOSCH MOTORSPORT	MECTRONIK
CARROT	MEGASQUIRT
COSWORTH	MME
DTA	MOTEC
ECUMASTER	MSEL
EFI	PECTEL
ELETROMOTIVE	PRO EFI
EMERALD	RACEGRADE
EMTRON	RACELOGIC
E-RACE BLACK	SPECIALIST COMPONENTS
GEMS	SIMTEK
GRAYHILL	SYBELE
HALTECH	SYVECS
HONDATA	TEXENSE
HP ELETRONIC	TREMONDI
KMS	TRIJECT
LIFE RACING	XAP
LINK	

## Technical Drawings / Dimensions / Mounting (in mm)

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## PIN FUNCTIONS - Connector TE 3-1437290-7 (keying 1)

#	LABEL	DESCRIPTION	NOTES
1	+12V	Power supply for the device. 8-18V. Max 0.5A (6.5A with AUX)	Connect to a switched +12V power source
2	GND	Ground supply	Connect to chassis/engine ground
3	+5V	+5V sensor supply	Max current 200mA
4	SGND	Ground supply for sensors	Protected from overcurrent
5	AN1 / DI1	Analog/Digital input 0-5V,selectable pull-up 1K to 5V	
6	AN2 / DI2	Analog/Digital input 0-5V,selectable pull-up 1K to 5V	
7	AN3 / DI3 / FR1	Analog/Digital/Frequency input 0-5V,selectable pull-up 1K to 5V	FR trigger threshold 1.2V
8	CAN 2 LO / RS232 RX	250kbit – 1.333Mbit speed, selectable 120R termination	Optional use as RS232 data input
9	CAN 2 HI		
10	LIN	Lin bus Master connection	Device boots in recovery mode when connected to ground
11	AN4 / DI4 / FR2	Analog/Digital/Frequency input 0-5V,selectable pull-up 1K to 5V	FR trigger threshold 1.2V
12	AN5 / DI5 / FR3	Analog/Digital/Frequency input 0-16V	FR trigger threshold 4V, fixed 16K pull down
13	AN6 / DI6 / FR4	Analog/Digital/Frequency input 0-16V	FR trigger threshold 4V, fixed 16K pull down
14	CAN 1 LO	250kbit – 1.333Mbit speed, selectable 120R termination	
15	CAN 1 HI		
16	RS232-TX	RS232 data output	
17	AN7 / DI7 / FR5	Analog/Digital/Frequency input 0-16V	FR trigger threshold 4V, fixed 16K pull down
18	AN8 / DI8 / FR6	Analog/Digital/Frequency input 0-16V	FR trigger threshold 4V, fixed 16K pull down
19	DI9 / FR7	Digital / Frequency input 0-5V	FR trigger threshold 2V, fixed 100K pullup to 5V
20	USB DATA-P	USB data positive	USB Flash Logging and Communications port
21	USB DATA-N	USB data negative	
22	USB 5V	USB +5V	
23	USB GND	USB ground	
24	AUX2 HS	Auxiliary output – High Side 3A max current	ON/OFF or PWM.Sources current from pin 1
25	AUX1 HS	Auxiliary output – High Side 3A max current	ON/OFF or PWM.Sources current from pin 1
26	DI10 / FR8	Digital / Frequency input 0-5V	FR trigger threshold 2V, fixed 100K pullup to 5V

## CONNECTOR WIRE SIDE VIEW (REAR)



## CONNECTOR PART NUMBERS

LOOM CONNECTOR	TE 3-1437290-7 (keying 1)
WIRE PINS	TE 3-1447221-4
DUMMY PLUGS	TE 4-1437284-3

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