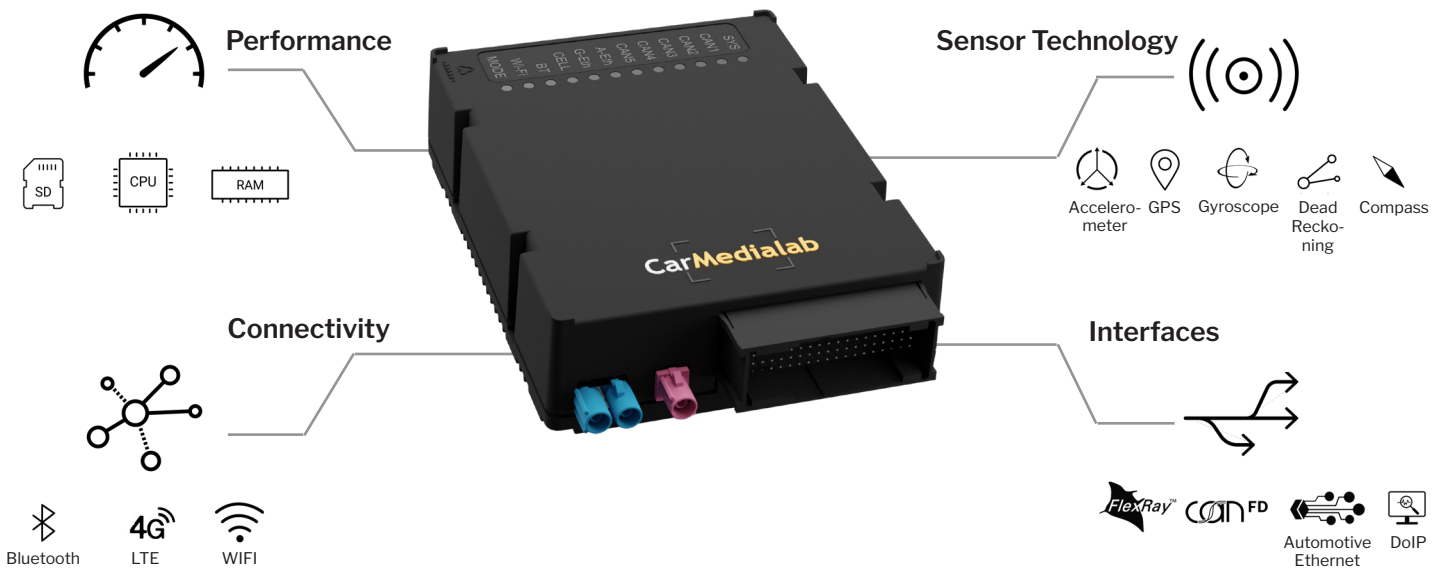


# Flea 4+

## Platform for Automotive Engineering

The Flea 4+ is an advanced and progressively devised telematics platform with excellent performance, designed to meet the latest increasingly demanding requirements. With its up-to-date interfaces, more efficient communication and more extensive sensor technology, the Flea 4+ offers a broad basis for new and exciting use cases.

Flea 4+ develops and expands the familiar functionality of the successful Flea 3 platform: diagnostics, measuring and statistics.



## USE CASES

- PREPARING NEW TELEMATICS OPTIONS
- QUALITY ASSURANCE
- TEST VEHICLE PROTOCOL
- CUSTOMER BEHAVIOR ANALYSIS
- AUTOMATED DEVELOPMENT DOCUMENTATION

# Flea 4+

## Platform for Automotive Engineering

		Flea 4+
<b>System</b>	Processor	4 ARM Cortex-A53 at 1.2 GHz (64 Bit) 2 ARM Cortex-R5 at 500 MHz
	RAM	1 GB LPDDR4 RAM
	System Memory	4 GB eMMC 4 ... 32 GB, Internal Micro SD (optional) 16 MB NOR
	Sensors	3 D Gyroscope 3 D Accelerometer 3 D Magnetometer (Compass)
	OS	Embedded Linux (Yocto Based)
	Power Supply	12 / 24 V
	Operating Temperature	-40°C ... +85°C
	Dimensions	152 mm x 107 mm x 36 mm incl. Main Connector
	Wakeup Options	Ignition, CAN (Activity), RTC, Modem Ring
	<b>Connectivity</b>	Cellular
WI-FI (optional)		802.11 a / b / g / n (2.4 / 5 GHz)
Ethernet		10 / 100 / 1000BASE-TX
Bluetooth		BT / BLE 4.2
<b>Interfaces</b>	CAN	5 x CAN-FD
	Automotive Ethernet	1 x Automotive Ethernet (100BASE-T1)
	DolP	1 x DolP ISO 13400 (10 BASE-TX)
	FlexRay (optional)	1 x FlexRay A / B Channels
<b>Positioning</b>	GPS / QZSS	72-Channel with Dead Reckoning and Internal Sensors GPS, GLONASS, BeiDou, Galileo Position Accuracy 2.5 m CEP with SBAS 1.5 m CEP Frequency of Time 0.25 Hz ... 10 MHz Number on Concurrent GNSS: 3
<b>Connectors</b>	ELO-54	5 x CAN-FD 1 x Automotive Ethernet (100BASE-T1) 1 x DolP ISO 13400 (100BASE-TX) 1 x FlexRay A / B Channels 3 x Analog Input (0-60 V) 2 x Digital Output (Open Drain) 1 x Digital Output (High Side Switch) 1 x I2C 2 x RS232
	USB	USB-C 2.0 (Host or Client / OTG)
	Antenna	2 x 2G / 3G / 4G Antenna Fakra 1 x GPS Antenna Fakra
<b>Power Supply</b>	Overvoltage Protection	36 V
	Standby	< 0.5 mA @ 12 V
	Hibernation (Warm Start)	< 10 mA @ 12 V
	Working	< 500 mA @ 12 V