

CompactRIO™ LIN Module



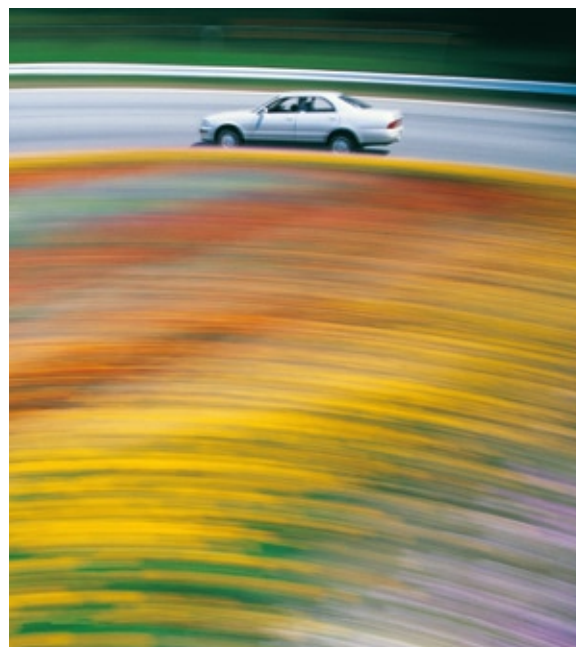
SEA cRIO LIN modules offer two individual master or slave LIN-Bus ports for National Instruments™ CompactRIO™ systems.



S·E·A Science & Engineering
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Modules	cRIO LIN
Order number	60000004
Functions	
# LIN ports	2
Analog option (16 bit, max 500 kHz)	-
LIN version	2.0
Sleep mode	•
Analog telegram sampling	n.a.
Technical Data	
Operation temperature range [° C]	-40 - +60
Operation voltage [V] (backplane)	5
Operation current mean [mA] (backplane)	5
Size [mm]	70 x 213 x 87
Weight [g]	150
Software	
Configuration software	•
Supported LabVIEW version	8.x, 9.x



• = included; - = not available

Subject to technical changes.

cRIO LIN Modules

The SEA cRIO LIN modules are developed for a wide range of applications, e.g. monitoring and logging, in vehicle networks, HIL simulation, LIN bus load monitoring, LIN device development, test and validation.

The FPGA based communication structure allows the correlation of LIN messages with external signals. The module automatically checks framing and protocol errors. LIN 2.0 datagrams can be read and written, framing and timing parameters can be modified.

The modules bus interfaces are 9 pin male D-Sub (DB9) connectors. The module offers:

- 2 isolated LIN-bus interfaces
- each port is configurable for master or slave mode
- LIN V2.0 standard,
- FPGA controlled timing
- LIN-bus read and write function, additional option for data analysis with highspeed analog sampling
- external power supply
- low power consumption
- API software für LabVIEW-RT and LabVIEW-FPGA
- configuration via LDF files



CompactRIO system with S.E.A. LIN and EnDat module and NI CAN and IO module.



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V2.0

CompactRIO Platform

The National Instruments CompactRIO™ platform for measurement and control applications bases on FPGA technology. It is a reliable, robust and compact system for reliable real time data acquisition and control solutions. Various digital and analog sensor signals and bus systems are supported.

Various digital and analog realtime sensor signals as well as bus systems are supported. Combined with the new cRIO LIN module this offers new opportunities for automotive applications.

There are two LIN module types available:

- LIN base module
- LIN module with analog sampling function.

Service

S.E.A. Datentechnik GmbH develops soft- and hardware for the CompactRIO platform and supplies customized control and measurement systems. Also we offer OEM solutions and integration support with CompactRIO products.

For further information please visit:

www.sea-gmbh.com/crio

LIN-Bus - Local Interconnect Network

The LIN-Bus is a computer networking bus-system used within current automotive network architectures. The LIN specification is enforced by the LIN-consortium. The specification has evolved to version 2.1 to meet current networking needs.

The LIN bus is a small and slow network system that is used as a low cost sub-network of a CAN bus to integrate intelligent sensor devices or actuators in today's cars - e.g. for network functions inside doors or seats. LIN is a broadcast serial network comprising one master and up to 16 slaves. No collision detection exists, therefore all messages are initiated by the master with one slave replying for a given message identifier.