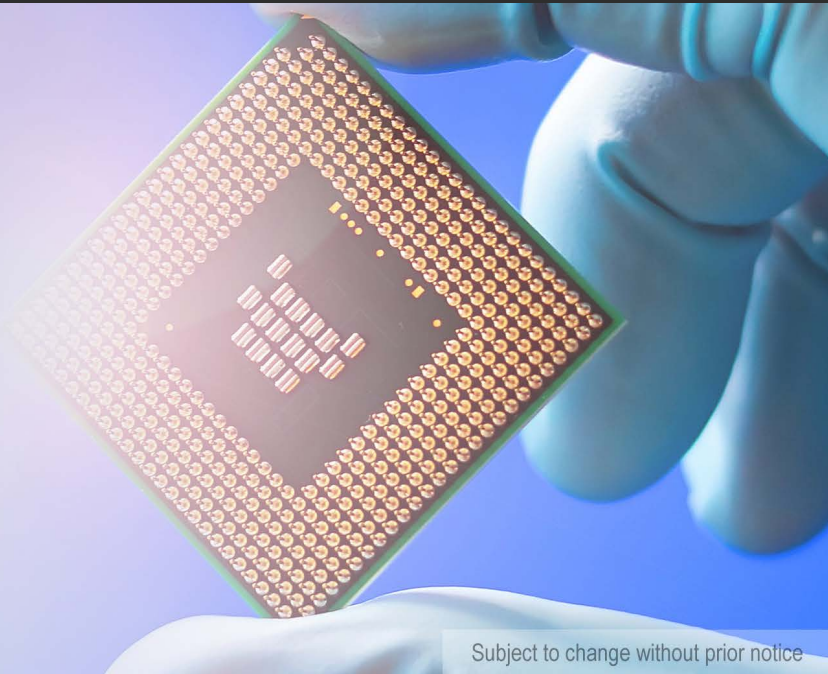


OmniLink Adapter Board

Designed and Developed by eInfochips for Texas Instruments



Subject to change without prior notice

About eInfochips:

eInfochips is a Trusted Design Partner of Texas Instruments with over 15 years of collaboration, delivering innovative product designs and engineering solutions.

eInfochips' deep expertise across TI platforms and diverse technologies enables faster delivery of robust, high-quality solutions across industries.

Our core strength spans TI multi-core (DSP + ARM) processors, Digital Media, ARM processors, microcontrollers, analog/mixed-signal, logic, and PMICs.

eInfochips has delivered solutions across the full TI DSP portfolio – from DM642/DM6446 to Edison, Lamarr, and Hawking – with many EVMs designed and manufactured by eInfochips.

eInfochips Advantages

- **30+** Years of Experience in Product/System Design
- **17** Design centers worldwide
- **750+** Overall and **100+** TI-based Product Designs
- **ISO 9001, ISO13485, AS9100/EN9100, ISO26262** and **CMMi L3** compliant processes
- Amongst **Top 2 Worldwide Partner** for **TI's Multi-core** Platforms
- Amongst **Top 5 Worldwide Partner** for **TI DaVinci Processors**

OmniLink Overview and Brief Details:

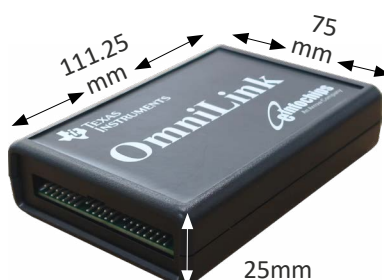
Omnilink is a versatile USB interface adapter that enables seamless communication between a computer and chipset of evaluation modules (EVMs).

It simplifies hardware evaluation by providing fast access to IC registers and configuration settings, plus real-time monitoring of EVMs through a USB connection and a GUI-based interface.

By supporting multiple protocols—including I²C, SPI, UART, CAN FD, GPIO, ADC, DAC, PWM, and relay driving—Omnilink helps engineers accelerate prototyping, debugging, and validation during product development.

It also consolidates multiple single function tools (USB to UART/SPI/I²C/CAN, USB to ADC/DAC, and USB PWM generator) into one platform.

Flexible I/O voltage configuration improves compatibility across a wide range of IC operating voltages.



Industrial

Automotive

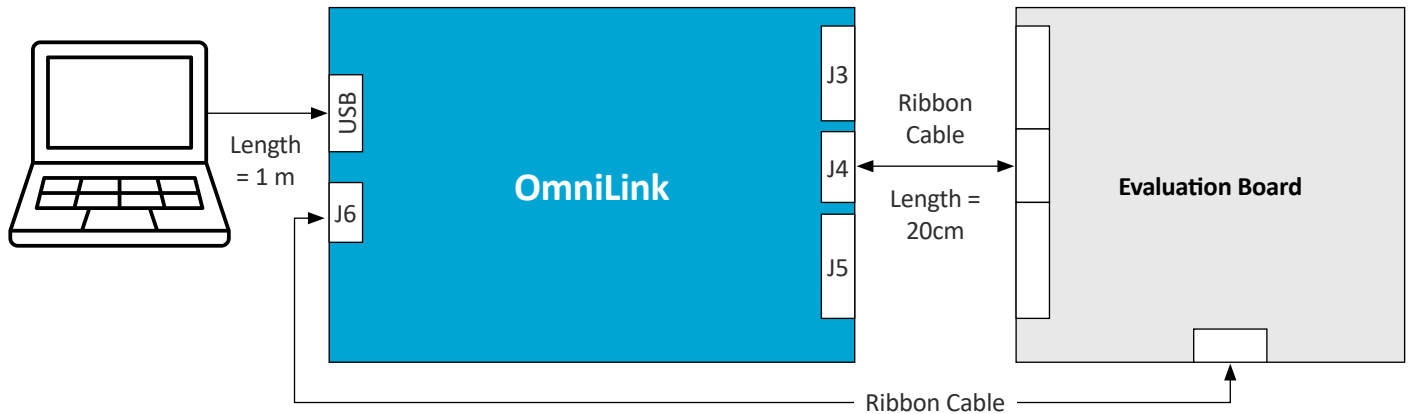
Robotics

Medical

Transportation & Logistics

Smart Warehousing

System-level Block Diagram



Key Features & Technical Specifications

Parameter	Specification
USB	USB 2.0 Full-Speed (host connectivity)
Supply Outputs	3.3 V @ 170 mA; 5 V @ 200 mA (for powering EVM circuits)
SPI (Ports 1–2)	2 × SPI channels; up to 20 MHz clock frequency; configurable I/O voltage
SPI (Port 3)	1 × SPI channel; up to 20 MHz clock frequency; fixed 1.8 V I/O voltage
I ² C (Ports 1)	I ² C Channel 1: up to 3.4 MHz; Pull-up enable/disable option; support SMBus and PMBus Configurable I/O voltage
I ² C (Ports 2)	I ² C Channel 2: up to 400 KHz; Pull-up enable/disable option; configurable I/O voltage
I ² C (Port 3)	1 × I ² C channel; up to 400 kHz clock frequency; fixed 1.8 V I/O voltage
UART	2 × UART channels; baud rates from 9600 to 230400 bps; configurable I/O voltage
CAN FD	1 × CAN FD channel with on-board CAN transceiver
PWM	3 × PWM Channel, Configurable PWM frequency: 325 Hz to 1 MHz Duty Cycle: 0 to 100%
Interrupt	3 × External Interrupt channel
ADC	2 × ADC channels; 12-bit resolution; 0–5 V input range
DAC	2 × DAC channels; 8-bit resolution; 0–4 V output range
GPIO	8 × shared GPIOs; configurable I/O voltage
Relay Driver	4-channel of open drain relay driver; supports up to 24 V relay
Pattern Generator	8-channel pattern generator; configurable I/O voltage
Configurable I/O Voltage Source Selection	Internal: 1.8 V or 3.3 V; External: 1.2 V to 5 V
USB2ANY Compatibility	Backward compatible with USB2ANY 10-pin connector with standard interface UART, I2C, SPI, GPIO.
GUI Interface	GUI available for quick testing and evaluation; simplifies configuration and device testing

^ Maximum operating frequency limited by the test setup

Orderable Part number # EINFO-3P-OMNILINK

eInfochips, an Arrow Electronics company, is a leading provider of digital transformation and product engineering services. eInfochips accelerates time to market for its customers with its expertise in the areas of IoT, AI/ML, security, sensors, wireless, cloud, and power. It has been recognized as a leader in Engineering R&D services by many top analysts and industry bodies, including Gartner, Zinnov, ISG, IDC, Nasscom, and others.

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