

Innova Link Extension boards Analogue Video and Serial Communication system

A wide range of add-on boards with video and serial interfaces are available for the Link AV system. The AV system is the core system in the Link product family, and provides video and serial lines over a single fibre, as well as diagnostics interface for the other products in the family.

The AV system is designed to be modular and flexible, by using a combination of motherboard and daughter boards to provide different signal interfaces. An AV board has 6 on board analogue video channels and extension connectors for up to 4 daughter boards with additional video and data channels. Currently, daughter boards are available with:

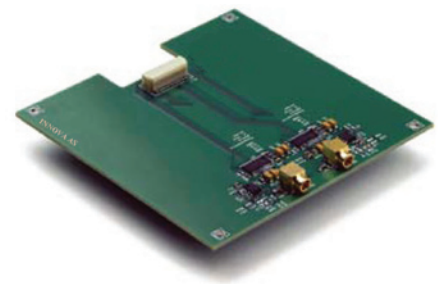
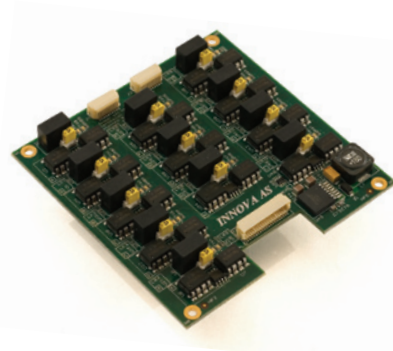
- 2 additional channels of Analogue Video
- RS-232, 115 kbps 12 isolated channels
- RS-485 Half duplex, 115 kbps, 12 isolated channels
- 4 Trittech ArcNet channels
- RS-232, RS-485, trigger, 9 channels

In addition, custom extension boards can be developed.

The daughter boards can be combined so that they work as media converters; i.e. a topside RS232 board can communicate with a remote RS485-board, providing "on-the-fly" media conversion from RS232 to RS485.

The design is based on Innova's long experience with remotely operated vehicle systems and provides a wide range of features, including;

- All serial channels are galvanic isolated
- All video channels are fully AC coupled
- Pressure tolerant electronics



All the boards in the Link Family are designed to be mounted into a rack where boards can be removed separately. A backplane distributes power and diagnostics signal to all boards in the rack.

The output boards can be mounted into a topside rack, including backplane, power supply, and user interface.

A version of the boards and optics are available for operation in oil-filled, pressure compensated environments. Typical applications for this version are for use in sub-sea systems or in other harsh environments.

Extension Board 2 ch Video

- Sampling at 12.5 MHz, BW 6MHz
- Connectors: Input and Output board: Radial MCX
- Latency < 20µS
- Typical idle power consumption: 25mA @ 12V

Part no

- 21 11 101 Ext 2 ch Input, Standard
- 21 11 201 Ext 2 ch Input, PC 300 Bar
- 21 11 301 Ext 2 ch Output

Extension Board 12 ch RS-232

- 12ch of RS-232, 115kbs, Isolated
- Typical idle power consumption: 550 mA @ 12V
- Connectors: Input board: 2x40pin Molex
Output board: RJ45

Part no

- 21 12 101 Ext 12 ch RS-232 Input
- 21 12 201 Ext 12 ch RS-232 Input, PC 300 Bar
- 21 12 301 Ext 12 ch RS-232 Output

Extension Board 12 ch RS-485 Half Duplex

- 12ch of RS-485, half duplex, 115kbps, Isolated
- Typical idle power consumption: 560 mA @ 12V
Maximum power consumption: 1130 mA @ 12V
- Connectors: Input board: 2x40pin Molex
Output board: RJ45

Part no

- 21 14 101 Ext 12 ch RS-485 HD Input, Standard
- 21 14 201 Ext 12 ch RS-485 HD Input, PC 300Bar
- 21 14 301 Ext 12 ch RS-485 HD Output

Input Boards

- Board size: 100mm x 100mm
- Voltage: 12 v
- Operating temperature range: -20–70 °C

Output Boards

- Board size: 100mm x 160mm
- Voltage: 12 v
- Operating temperature range: -20–70 °C

Extension Board 4 ch Tritech ArcNet

- 4 bi-directional Tritech ArcNet serial channels
- Typical idle power consumption 10 mA @ 12V
- Connector: Phoenix MC 0,5/8-ST-2,5

Part no

- 21 12 101 Ext 12 ch RS-232 Input
- 21 12 201 Ext 12 ch RS-232 Input, PC 300 Bar
- 21 12 301 Ext 12 ch RS-232 Output

Extension Board 9 ch RS-232, RS-485, Trigger

- Power supply: 12VDC (for on-board electronics)
- Typical idle power consumption: 450mA @ 12V
- 5 isolated RS-232
- 2 isolated RS-485 (selectable via control SW)
- 1 isolated trigger (input on Output board and output on Input board)
- 1 RS-485 communication port to a host system
- Connectors

Input board:

RS-485 control, J2 Molex 43025-0400 conn.

Trigger output, J3 Molex 43025-0200 conn.

RS-232, J4-J8 Molex 43025-0400 conn.

RS-232 / RS-485, J9, J10 Molex 43035-0600 conn.

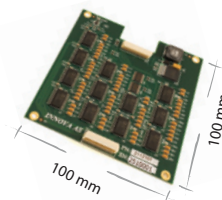
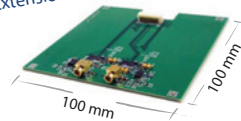
Output board:

RJ45

Part no

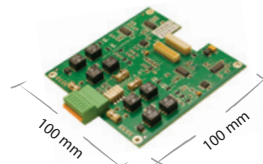
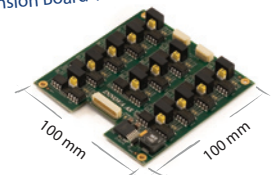
- 21 16 101 Ext 9 ch Input, Standard
- 21 16 201 Ext 9 ch Input, PC 300 Bar
- 21 16 301 Ext 9 ch Output

Extension Board 2 ch Video

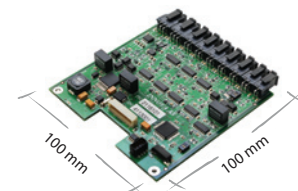


Extension Board 12 ch RS-232

Extension Board 12 ch RS-485 Half Duplex



Extension Board 4 ch Tritech ArcNet



Extension Board 9 ch RS-232, RS-485, Trigger