

# Link

## AV and Serial Communication

[www.innova.no](http://www.innova.no)

**The Innova Link AV video and serial multiplexer is the core system in Innova's fibre optic product family. The system provides video and serial lines over a single fibre, as well as diagnostics interface for the other products in the Link family.**

The flexible and modular design aims to meet the requirements of all types of remotely operated systems, from small observation vehicles to full survey spreads. This flexibility also makes it easy to upgrade older systems to increase capacity and bandwidth in a cost efficient manner.

The system consists of a motherboard with video, optics and diagnostics interface, and daughterboards for additional video and serial data channels. All video and serial data are transmitted over pair of fibres.

The AV board has 6 on board analogue video channels and extension connectors for up to 4 daughterboards with additional video and data channels.

### Key features

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

- Up to 8 channels of high quality analogue video
- Up to 36 channels of serial data channels
- All serial channels are galvanic isolated
- All video channels are fully AC coupled
- Self-test and diagnostics for all boards
- Single mode and multi mode fibre options
- Can be combined with other boards in the Link Family over single fibre with the use of CWDM optical multiplexers

## ANALOGUE VIDEO & SERIAL COMM. SYSTEM

6 ch. NTSC or PAL on motherboard  
Self test and diagnostics for all boards  
Sampling at 12.5 MHz, BW 6 MHz, 10 bit  
Latency < 3µS

## INPUT BOARD

One SFP cage  
Video connection: Radial MCX  
Board size: 100 mm x 100 mm  
Voltage: 6 – 12 V  
Typical idle power consumption: 530 mA @ 12 V  
(Excl. Ext. boards)  
Operating temperature range: -20 °C to 70 °C  
\*SFP temp. range may be different

## OUTPUT BOARD

One SFP cage  
Video connection: Radial MCX  
Board size: 100 mm x 160 mm  
Voltage: 6 – 12 V  
Typical idle power consumption: 750 mA @ 12 V  
Operating temperature range: -20 °C to 70 °C  
\*SFP temp. range may be different

## PART NO.

21 10 101 AV 6 ch. Input Board, Standard  
21 10 301 AV 6 ch. Output Board

## EXTENSION BOARDS

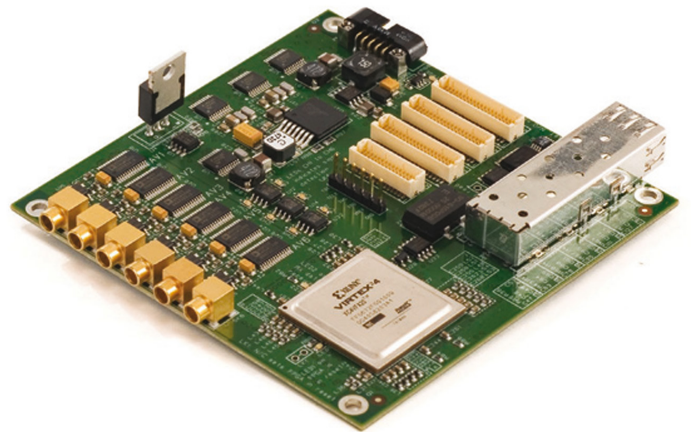
Currently, daughterboards are available with:

- 2 additional channels of AV
- 12 isolated channels of RS-232, 115 kbps
- 12 isolated channels of RS-485 Half duplex, 115 kbps

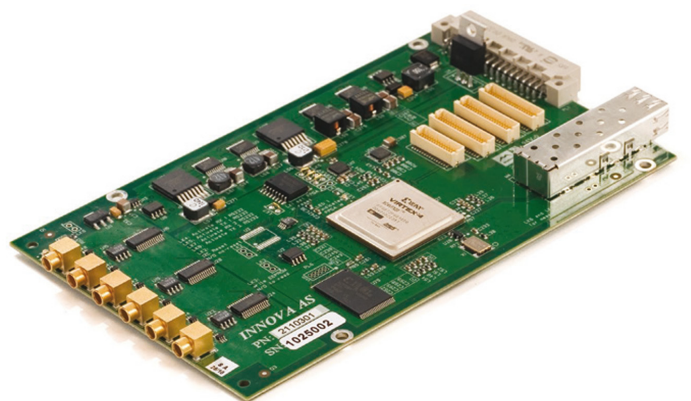
In addition, custom extension boards can be developed.

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.



AV6 ch. Input



AV6 ch. Output