DIREKT ROUTER. INPUT AND RE-DISTRIBUTE VIDEO OVER THE INTERNET AND OTHER IP NETWORKS.

Direkt routers are used for connecting video links, change IP streams between unicast and multicast or to remove error correction. It can be tailored through features like transcoding, multiview, and SDI/NDI® outputs. This adaptability transforms it into an advanced receiver with many areas of use.

INTEROPERABILITY

The Direkt series offers multiple ways of receiving and sending video over IP which makes it the best option for combining sources and destinations.

SUPERVISION AND ALARMS

Incoming IP streams can be remotely managed and troubleshooted via IDM (Intinor Direkt Management).

REDUNDANCY & ERROR CORRECTION

Direkt router can receive, and send, IP streams that are both redundant and has error correction. (Bifrost™, FEC, TCP, SRT, RTP over SRT SMPTE 2022-7)

NETWORK DEBONDING

Direkt router efficiently receives and assembles video transmitted across multiple IP streams.

ACCESS CONTROL

Direkt router allows for precise control over access to input streams on each corresponding input.

FORM FACTOR

rack

Direkt routers are usually delivered in a 19” 1RU rack-compatible format with rear-side connections and a built-in power supply supporting 100–240V AC.

rack+

Direkt router rack+ is a 19” 2RU-rack with a powerful CPU for higher performance, redundant power supply, additional PCI-slots, and much more.

STANDARD FUNCTIONS

Direkt router provides the following functions:

- SRT and Bifrost™ Reliable Transport
- 8-bit & 10-bit encoding and decoding
- 4:2:0 & 4:2:2 chroma subsampling
- Up to 4K UHD encoding and decoding
- Multiple output streams on each channel
- HDMI out for monitoring
- Easy to configure via display and keypad
- PPM shows if audio is present
- Record files to USB storage
- IDM (Intinor Direkt Management) system, for remote management and troubleshooting
- Management via IP2 (secondary RJ45)
- FEC – COP#3 FEC
- IPMI
- Web based router panel
- Stream synchronisation (NTP)
- SMPTE 2022-7 seamless protection switching
- SMPTE 302M (Dolby E) passthrough
- HDR HLG passthrough from IP stream input to SDI out

MADE IN SWEDEN

OPTIONS

Direkt router is available in convenient product bundles, with additional tailor-made solutions available upon request.

INTERCOM
With 4-wire talkback, the Direkt router can connect to other Direkt units for audio communication with short delay. This option gives two or more full-duplex mono channels, e.g. control room and studio return.

MULTIPLE SDI OPTIONS
Direkt router can both input- and output SDI and is available with 2x, 4x, or 8x 3G-SDI outputs. The 4x and 8x versions are compatible with 12G-SDI. For additional output requirements, contact us to discuss suitable solutions.

ENCODING
The built-in encoder can transcode incoming streams with audio and video to H.264 and/or H.265/HEVC using configurable encoding modes, supporting 4:2:0 and 4:2:2 chroma subsampling at 8-bit or 10-bit depth.

MULTIVIEW
Multiple inputs can be combined into a multiview-video and encoded or output on SDI/NDI®/HDMI.

SDI / NDI® INPUTS AND/OR OUTPUTS
With one or multiple SDI/NDI® outputs, the Direkt router becomes an advanced video receiver with many areas of use. Incoming IP streams can be routed to SDI/NDI® outputs, connecting multiple Direkt links to one Direkt router. One SDI/NDI® output can also be used for multiview. Our Netvideo inputs can handle both high-bandwidth NDI as well as NDI® HX.

ROUTER PANEL
The optional software panel provides intuitive control over signal routing from inputs to SDI, NDI®, and HDMI outputs.

EXTRA LAN
Extra network interfaces can be useful if Direkt router distributes video streams over multiple networks.

REDUNDANT PSU
Redundant PSU is available as an option for the 1RU format and is standard in the 2RU format.

VPN
With VPN you can create a virtual network between your control room and remote locations, control PTZ cameras and more.

TECHNICAL SPECIFICATION

Transport	MPEG2-TS over IP (ISO/IEC 13818-1) UDP and TCP RTP (RFC 3550,2250) FEC (Pro-MPEG COP#3, SMPTE ST 2022-2:2007) Bifrost™ Reliable Transport SRT and RTP+SRT incl 2022-7
SDI out standards SD, HD, 3G, 12G	SMPTE 259M, 272M, 292M, 302M 424M (A+B), 2082
Resolutions SDI-out	PAL & NTSC 720p 25–60 fps (incl. 29.97/59.94) 1080i 25–30 fps (incl. 29.97) 1080p 23.98–60 fps (incl. 24/25/29.97/30/50/59.94) 2160p (*12G compatible devices*) 25–60 fps (incl. 29.97/59.94)
Digital out NDI®	NDI® outputs on Direkt router and resolutions up to 1080p/60.
Digital video in (up to 10-bit 4:2:2)	MPEG2 video ISO/IEC 13818-2 H.264/MPEG4 AVC video ISO/IEC 14496-10 Baseline, Main, High / 10 / 4:2:2 HEVC/H.265 video ISO/IEC 23008-2 Main / 10 / 4:2:2 10
Interface in/out	Ethernet 10/100/1000, RJ45
Interface management	Ethernet 10/100/1000, RJ45
Size 1RU (excl brackets)	425 x 380 x 45 (WxDxH), fits in 19” rack (1RU)
Size rack 1RU dual PSU	450 x 450 x 45 (w x d x h) Fits in 19” 1RU-rack
Size rack+ / 2RU option	440 x 450 x 90" (w x d x h) Fits in 19” 2RU-rack
Weight approximately	5200g (rack) 7700g (rack 1RU dual PSU)13300 (rack+)
Power consumption	Max 130W (rack), Max 250W (rack+)