



DIREKT ROUTER. BUFFERS AND REDISTRIBUTE VIDEO OVER INTERNET AND OTHER IP NETS OR ACTS AS AN ADVANCED VIDEO RECEIVER

Direkt routers are used for connecting video links, change IP streams between unicast and multicast or to add or remove error correction. Direkt router can be customized with transcoding, multiview and SDI/NDI outputs. It then becomes an advanced receiver with many different areas of use.

IMPORTANT CHARACTERISTICS

A Direkt router in an IP link system gives the following advantages

SUPERVISION AND ALARMS

IP streams, which enters a Direkt router, can be remotely controlled, supervised and troubleshooted via ISS – Intinors system for statistics and supervision

ERROR CORRECTION

Direkt router can receive IP streams with error correction (BIFROST™, FEC or TCP with buffering)

ADAPTIVE BITRATE

Direkt router automatically handles variable bitrate on incoming IP-streams.

NETWORK DE-BONDING

Direkt router receive and assemble video transmitted over multiple IP-streams

ACCESS CONTROL

On Direkt router one can control access to input streams on each respective input.

MULTICHANNEL

Direkt router has six separate inputs, which can be configured individually. More inputs can be added.

STANDARD FUNCTIONS

The following functions are present on Direkt router

- Receive video streams from a number of different units
- Multiple output streams on each channel
- HDMI out for monitoring
- Easy to configure via display and keypad
- Can be controlled via web interface over network
- Settings can be stored in profiles
- PPM shows if audio is present
- With USB storage, Direkt router can record to files
- ISS – Intinors system for statistics, supervision and troubleshooting
- Backup settings and upgrade software via web interface or ISS
- FEC – COP#3 FEC
- BIFROST™ Reliable Transport
- IPMI
- Web baser router panel
- Stream synchronisation (NTP)

DIFFERENT FORMATS

RACK

Direkt link are usually delivered in a format which can be installed in a 19" rack with all connections on the rear side. Power supply is built in and 100 – 240V AC is fed using an ordinary power cord.

2RU / RACK+

Direkt link 400 Rack + is delivered in a 19" 2U-rack. Rack+ includes a more powerful CPU for higher performance, redundant power supply, supports high broadcast quality up to 1080p50/60. Supports performance level 6 for eSport.

LITE

The smallest, most robust streaming router available. Can be fitted with HDMI or NDI.

OPTIONS

Direkt router is primarily customized using options. Other customer tailored solutions are made on order.

4-WIRE TALKBACK

By using 4-wire talkback, Direkt link can connect to other Direkt units for audio communication with short delay. The option gives two or more full duplex mono channel, for example control room and studio return.

MULTIPLE VIDEO INPUTS

Direkt router can be customized with 12, 18, 24 or more video inputs.

Encoding

Direkt router with encoder can transcode a stream with video and audio to H.264-format in a specific encoding mode before redistributing it. This option is available for Web TV or broadcast. H.265 encoding is optional.

MULTIVIEW

Multiple inputs can be arranged as a multiview-video and encoded or output on SDI/NDI/HDMI

SDI / NDI INPUTS AND/OR OUTPUTS

With one or multiple SDI/NDI outputs (HD/SD) Direkt router becomes an advanced video receiver with many areas of use. The user can connect IP inputs with SDI/NDI outputs and by this way use many more Direkt links than the physical outputs available. One SDI/NDI output can also be used for multiview.

ROUTER PANEL

With an external router panel you can easily control which input is connected to the respective SDI/NDI/HDMI output.

EXTRA LAN

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

RTMP OUT

Direkt router have support for sending video streams using RTMP and or RTMPS as transport instead of MPEG-TS.

SRT – SECURE RELIABLE TRANSPORT

SRT is an open source video transport protocol.

RIST

RIST is an open source video transport protocol.

TECHNICAL SPEC.

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
Digital out SDI (Option)	SD-SMPTE 259M, SMPTE 272M HD-SMPTE 292M, SMPTE 299M 3G-SMPTE 424M, SMTPE 425M
Resolutions out SDI (Option)	PAL, NTSC 720p/50, 720p/59,94, 720,60, 1080p/23,98, 1080p/24, 1080i/25, 1080i/29,97, 1080i/30, 1080p50 A/B, 1080p29,94 A/B, 1080P60 A/B
Digital out NDI	NDI™ version 2.0 outputs on Direkt router and resolutions up to 1080p/60.
Digital video in MPEG2	MPEG2 video (ISO/IEC 13818-2) MP@ML, MP@HL, HP@ML, HP@ML, HP@HL (4:2:0) 422@ML, 422@HL (4:2:2)
Digital video in H.264	H.264/MPEG4 AVC video (ISO/IEC 14496-10)
Digital video in H.265	HEVC/H.265 video (ISO/IEC 23008-2)
Interface in	Ethernet 10/100/1000, RJ45
Interface management	Ethernet 10/100/1000, RJ45
Size 1u (without removable rack brackets)	425 x 380 x 45 (WxDxH), fits in 19" rack (1u)
Size rack+ / 2ru option	440 x 450 x 90" (w x d x h) Fits in 19" 2U-rack
Weight approwimately	5200g (rack) 13300 (rack+)