

NVISION 8140 HYBRID



DIGITAL VIDEO/AUDIO ROUTER WITH AUDIO VIDEO PROCESSING (UHDTV/3GBPS/HD/SD/ASI/AES/AA/MADI)

DESCRIPTION

The NV8140 hybrid router extends Miranda's NV8500 Enterprise Class router series by offering the advanced features of an enterprise class router, such as redundant power supplies, control cards, and crosspoints, in a rectangular 144 x 288 matrix. Packing video and audio routing in a single 8RU chassis, the NV8140 is ideal for the space constraints of mobile production and smaller studios and the added flexibility of fiber connectivity ensures you're ready for any live production or studio setting.

KEY FEATURES AND BENEFITS

Space, power and cost saving

- Hybrid routing. Integrated audio routing - no need for external embedding and de-embedding of audio
- Hot swappable modules
- 144 x 288 matrix in 8RU frame
- Ideal for smaller studios and mobile production

Simplified cable management with direct fiber connectivity

- Direct FIBER connectivity using SFP modules for 1310 nm and CDWM wavelengths
- High density coaxial connectors streamline cabling and lower weight
- Audio concentrators minimize cabling, associated labor, and weight

Superior signal integrity

- Unique, clean design for unparalleled signal integrity
- Lower return losses allows use of longer coaxial cable

Scalable for the very largest systems

- Rectangular matrices (twice as many outputs as inputs) are ideally suited to feeding multiviewer systems

Ultra resilient design

- Patented N-on-1 crosspoint redundancy
- Front loading with hot swappable power supplies, input, output, controller and
- Small failure block: input block is 18, output block is 18
- Redundant power supplies, crosspoints, and control cards

Highly flexible control

- Integrates tightly with advanced NVISION 9000 controllers and wide range of control panels for easier signal management, even in the most complex facilities

Rich facility integration

- Exceptional integration across a facility, including with multiviewers, signal processors, master control switches, tally management systems, and production switchers



A BELDEN BRAND

TECHNICAL SPECIFICATIONS

ELECTRICAL

AC power: PS8300, 1,350 W
AC power usage

DIAGNOSTIC

Type: Serial port
Standard: SMPTE 207M, EIA-422/EIA-232, configurable
Connector: 2, DE-9

SERIAL CONTROL

Type: Serial port (2 per control card)
Standard: SMPTE 207M, EIA-422
Connector: 4, DE-9

ETHERNET

Type: 10/100 Base T
Standard: IEEE 802.3
Protocol: NVISION Ethernet protocol
Connector: 2, RJ45

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: 0 to 40 °C
Relative humidity: 0 to 90 %, non-condensing

VIDEO REFERENCE INPUT

Type: Analog video reference
Standard: PAL, NTSC, or tri-level sync
Connector: Loop through, BNC
Impedance: 75 ohm or Hi-Z (>20,000 ohm), not selectable
Level: 0.5 Vp-p to 2 Vp-p

INPUTS/OUTPUTS (3GBPS/HD/SD)

Type: HD serial digital video
Standard: SMPTE 259M, 344M, 292M and 424M
Data rates for auto reclocking: 270 Mbps and 1.483, 1.485, 2.966, 2.970 Gbps or auto bypass with pass-through from 19 Mbps to 3 Gbps
Note: Inputs do not reclock

Connector: DIN 1.0/2.3
Impedance: 75 ohm

Cable equalization (for cables listed or equivalent cable):
400 m Belden 1694A, 250 m Belden 1855A at 270 Mbps
150 m Belden 1694A, 100 m Belden 1855A at 1.5 Gbps
100 m Belden 1694A, 45 m Belden 1855A at 3 Gbps

Router path: Non-inverting
Output level: 800 mVp-p ±10 %
I/O return loss: >15 dB, 5 MHz to 1.5 GHz;
>10 dB, 1.5 GHz to 3 GHz
Output rise/fall time: ≥135 ps
Output overshoot: ≥10 % of amplitude max
Output alignment jitter: ≥0.3 Ulpp from 100 kHz to 300 MHz
Output timing jitter: ≥2.0 Ulpp from 10 Hz to 100 kHz

Specifications subject to change without notice.

ORDERING INFORMATION

FRAMES

FR8140 NV8140 8RU frame w/PSU

OTHER OPTIONS

PS8300
8500-FAN 2
8000 series 1350 W PS redundant
8144/8140 series speed cont. fan module

HYBRID CROSSPOINT MODULES

8500H-XPT-144 8280/8144 3 Gig/hybrid XPT
8500H-RXPT-144 8280 3 Gig/hybrid redundant XPT

CONTROL MODULE

8500H-NV 8500 hybrid control card

FIBER SFPs

For available SPFs please refer to the NVISION 8500 HYBRID ordering guide.

HYBRID MODULE ORDERING GUIDE

HYBRID CONTROL MODULE

8500H-NV 8500 hybrid control card

PICOLINK MADI CONVERTERS

F10-991p-MADI-RT-M13-LC Multi-mode MADI optical transceiver
F10-991p-MADI-RT-S13-LC Single-mode MADI optical transceiver

HYBRID INPUTS

8140H-IP-3G-DEM-CX 8140 16 IN 3 Gig de-embedding coax input

VIDEO OUTPUTS

8140H-IP-3G-TDM-CX 8140 16 IN 3 Gig 2 IN MADI coax input

NVISION 8900 POWER SUPPLY

CROSSPOINT MODULES

CRPS1 Redundant power supply for NV8900

144-3GIG-XPT

140-3GIG-XPT-RED

8500 series 144 x 144 3 Gig XPT
8500 series 144 x 144 3 Gig redundant XPT

Contact Miranda for configuration assistance.