

# NVD110DB-XXR3

3 Independent Optical Channels 8-bit Digital Video Receiver with bidirectional Data Transceiver



## Description

The NeTrans' 8-Bit Digital Video and Data Modules series NVD110DB-XXR3, the 3-channel video fiber receiver and data transceiver, features high-performance laser-based optics for the clearest, most reliable data transmission. The NVD110DB-XXR3 supports 3 independent channels of 8-bit PCM digital video with bi-directional data in both single and multi-mode with no video degradation over the entire operating distance (up to 20km), as well as RS-232/422/485 serial data.

This plug-and-play product provides instant product compatibility for most major security manufacturers' equipment and reliability in harsh environments, a perfect compliment to any commercial, government or intelligent transportation application. The product features a universal design offering two great features: a variety of optical and connector options for field-configure-readiness; and a modular construction equipped for both rack-mount and stand-alone applications. The NeTrans Intelligent Rack design offers remote network diagnostics to maintain and manage system health and hot-swappability.

These units are compatible with the NVD110DBM and NVD110DB transmitters.



## Features

### Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-bit digitally encoded video
- ▶ 3 independent channel receiver in one module
- ▶ No video degradation over the maximum operating distance

### Data

- ▶ Meets EIA RS-232/422/485 specifications
- ▶ Full RS-485 Tri-state support
- ▶ Half or full-duplex operation
- ▶ Transparent to data encoding
- ▶ Data rates from 0 to 115.2kbps

### Optical

- ▶ Three independent fiber inputs
- ▶ High performance laser-based optics
- ▶ Multimode or Singlemode
- ▶ Internal SFP optical module
- ▶ ST or FC connectors available

### Robust Design

- ▶ Plug-and-Play design, no in-field adjustments required.
- ▶ 2-in-1 modular design for standalone or rack-mount installation
- ▶ Hot-swappable design
- ▶ Wide operating temperature range of -40°C to +75°C
- ▶ Designed for use in harsh environments

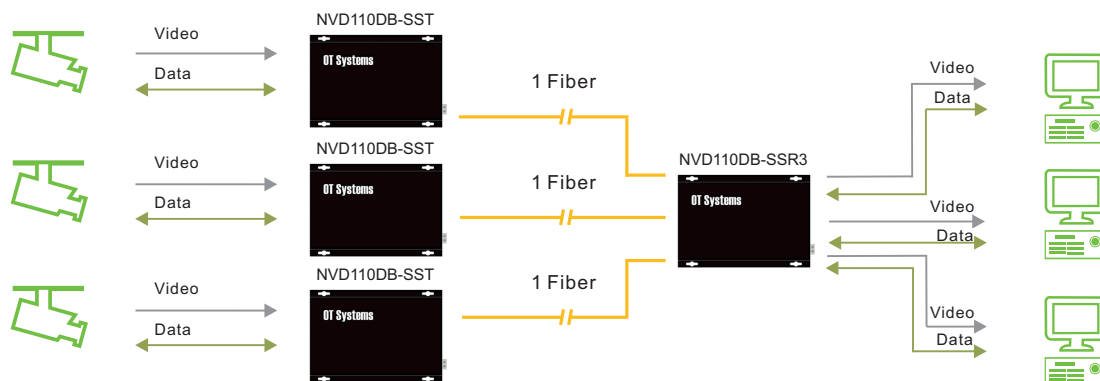
### Local and Remote Diagnostics

- ▶ Service-friendly LED status indicators on both front and rear of the module
- ▶ Remote health and status monitoring via Intelligent Rack System Diagnostics and Monitoring (SDM) Module

### Warranty

- ▶ Comprehensive Lifetime Warranty

## Typical Application



## Specifications

### Video

Number of Channels	3 (from independent Transmitters)
Format	NTSC/PAL
Input/Output	1 Volt pk-pk (75 ohms)
Bandwidth	6MHz
Differential Gain	<2%
Differential Phase	<1 Degree Typical
SNR-CCIR weighted	>53dB

### Data

Number of Channels	3 (from independent Transceivers)
Data Direction	Bi-directional Duplex
Data Interface	RS232, RS422, RS485 2 or 4-wire Tri-state
Selection Method	DIP switch-selectable
Data Rate	0~115,200bps
Data Protocol	Protocol transparency
Line Carrier Detection	RS485 (2/4-wire) Tri-state output

### LED

Video Signal Indication (Presence/Absence)	Green/Red LED lit
Data TX / RX Status	Green/Red LED lit
Power	Green / On

### Connectors

Video Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Data Input / Output	7-pin screw terminal
Power (Standalone)	2-pin screw terminal
Power (Rack-Mount)	10-pin smart bus connector

### Electrical and Mechanical

Power	SA: 12VDC @500mA
Dimensions(WxHxD)	158.4 x 50.8 x 231.8mm(Max)
Shipping Weight	1.07kg

### Environmental

Operating Temp	-40 °C to +75 °C
Storage Temp	-40 °C to +85 °C
Relative Humidity	0 to 95% non-condensing
MTBF	> 100,000 hours

## Ordering Information

Fiber Type	Part Number	Description	Wavelengths	Optical Power Budget	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	NVD110DB-SMR3	3 Independent Optical Channels 8-Bit Digital Video Receiver with Bi-directional Data Transceiver	1310   1550nm	12dB	4	2
Single-mode (9/125µm)	NVD110DB-SSR3	3 Independent Optical Channels 8-Bit Digital Video Receiver with Bi-directional Data Transceiver	1310   1550nm	18dB	20	2

Options	<ul style="list-style-type: none"> <li>ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT.</li> <li>Please feel free to consult factory if longer transmission distance is required.</li> </ul>
Power Adaptor	Power adaptor (GS40A12) is to be purchased separately. Please refer to accessories section for the details.
Rack Mount Chassis	Intelligent Rack Mount Chassis (NR-C14) is to be purchased separately. Please refer to accessories section for the details.

- Notes:**
- Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.
  - Operating distance of multimode is limited by the characteristics of the fiber bandwidth.
  - Power adaptor is manufactured by third party and is supplied with fitted screw - terminal output cables.
  - Please feel free to consult factory for any special requirement and customization.



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Due to continuous improvement, all product specifications are subject to change without further notice.