NVD110DB
8-bit Digital 1-ch Video with 1-ch bidirectional Data

1 VIDEO RS232 RS422 RS485 **1** DATA SDM **2 in 1** module

Features

Video
▸ NTSC or PAL video standards supported
▸ Non-compressed 8-bit digitally encoded video
▸ 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
▸ One fiber design
▸ High performance laser-based optics
▸ Multimode or Singlemode
▸ Internal SFP optical module
▸ ST, FC or SC 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 -40ºC to +75ºC
▸ 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

Description

The NVD110DB, NeTrans' 8-Bit Digital Video and Data Modules, features high-performance laser-based optics for the clearest, most reliable data transmission over one fiber for 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 ports.

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 NVD110DB transmitters/receivers and NVD110DB-XXR3 receivers.

Typical Application

NVD110DB-SST   1 Fiber   NVD110DB-SSR
Video   Video
Data   Data

Specifications

Video

Number of Channels	1
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	1
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 Input / Output	BNC
Optical Input / Output	ST (standard), FC or SC (optional)
Data Input / Output	7-pin screw terminal
Power (Standalone)	2-pin screw terminal

Electrical and Mechanical

Power	SA: 12VDC @500mA
Dimensions(WxHxD)	158.4 x 25.4 x 231.8mm(Max)
Shipping Weight	0.55kg

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-SMT**	1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver	1310 | 1550nm	12dB	4	1
	NVD110DB-SMR	1 - ch Video Receiver with 1-ch bidirectional Data Transceiver				
Single-mode (9/125µm)	**NVD110DB-SST**	1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver	1310 | 1550nm	18dB	20	1
	NVD110DB-SSR	1 - ch Video Receiver with 1-ch bidirectional Data Transceiver				

Options	• ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT. For SC type, specify "C" in the suffix. E.g. CMT.
	• Please feel free to consult factory if longer transmission distance is required.
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.

ISO 9001:2000 FM 88638

OT Systems

All Digital Fiber Optic Manufacturing Specialist

OT Systems Ltd., June 2012
Due to continuous improvement, all product specifications are subject to change without further notice.