NV110DB / NV210DB / NV410DB / NV810DB

10-bit Digital 1 / 2 / 4 / 8-ch Video with 1-ch bidirectional Data

VIDEO 1 ~ 8   RS232 RS422 RS485 **DATA** 1   **SDM**   **2 in 1 module**

Features

Video

▸ NTSC or PAL video standards supported

▸ Non-compressed 10-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
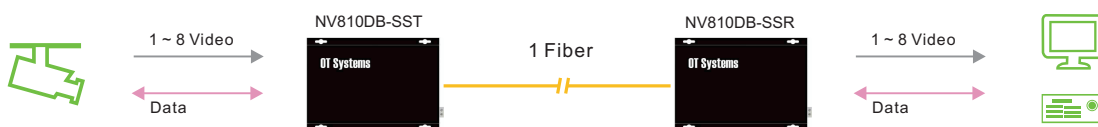
Warranty

▸ Comprehensive Lifetime Warranty

Description

The NV110BD/NV210DB/NV410DB/NV810DB, NeTrans' 10-Bit Digital Video and Data transmission products, support fiber optical transmission of 10-Bit PCM coded video (up to 8 channels) with one bi-directional data and features high-performance laser-based optics for the clearest, most reliable data transmission in both single and multi-mode with no video degradation over the entire operating distance (up to 20 km).

This plug-and-play product family provides instant 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.

Typical Application

1 ~ 8 Video   NV810DB-SST   1 Fiber   NV810DB-SSR   1 ~ 8 Video

Data   OT Systems   OT Systems   Data

Video Transmission

▍Specifications

Video

Number of Channels	1 / 2 / 4 / 8
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
Power (Rack-Mount)	10-pin smart bus connector

Electrical and Mechanical

NV110DB

Power	12VDC @500mA Max
Dimensions(WxHxD)	158.4 x 25.4 x 231.8mm(Max)
Shipping Weight	0.74kg

NV210DB

Power	12VDC @500mA Max
Dimensions(WxHxD)	158.4 x 25.4 x 231.8mm(Max)
Shipping Weight	0.74kg

NV410DB

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

NV810DB

Power	12VDC @500mA Max
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)	NV110DB-SMT NV110DB-SMR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 | 1550nm	12dB	4	1
	NV210DB-SMT NV210DB-SMR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 | 1550nm	12dB	3	1
	NV410DB-SMT NV410DB-SMR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 | 1550nm	12dB	2	2
	NV810DB-SMT NV810DB-SMR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 | 1550nm	12dB	2	2
Single-mode (9/125µm)	NV110DB-SST NV110DB-SSR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 | 1550nm	18dB	20	1
	NV210DB-SST NV210DB-SSR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 | 1550nm	18dB	20	1
	NV410DB-SST NV410DB-SSR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1550 | 1310nm	18dB	20	2
	NV810DB-SST NV810DB-SSR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1550 | 1310nm	18dB	20	2

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

FC CE RoHS FDA REACH Lifetime Warranty

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.