NVD110DACB

8-bit Digital 1-ch Video with bidirectional Data, Audio & Contact Closure

VIDEO 1	RS232 RS422 RS485 DATA 1	AUDIO 1	CC 1	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

Contact Closurel

▶ 2ms response time
▶ Normally open

Audio

▶ 20Hz – 20KHz Bandwidth
▶ Transmit Balanced or Unbalanced Line-level Audio selection via DIP switches

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
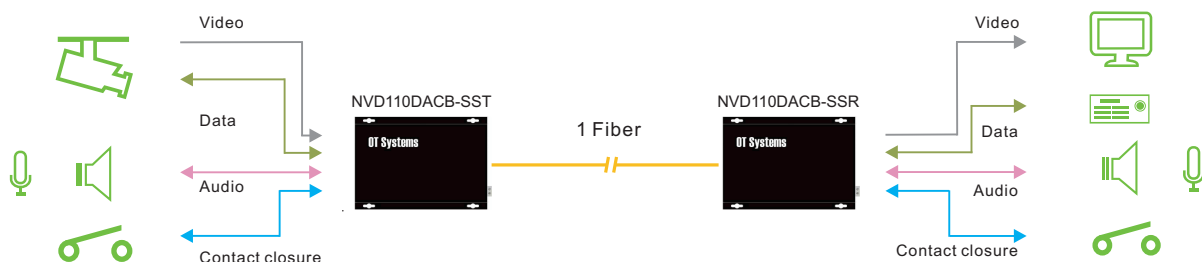
Warranty

▶ Comprehensive Lifetime Warranty

Description

The NeTrans' NVD110DACB series features high-performance laser-based optics for the clearest, most reliable data transmission. The video, data, audio and contact closure series fiber transmission products support fiber optic transmission of 8-Bit PCM coded video, bi-directional data, bi-directional audio and bi-directional contact closure in both single and multi-mode with no video degradation over the entire operating distance (up to 20km).

This budget-friendly plug-and-play product provides instant compatibility for most major security manufacturers' equipment and supports data, audio and control interface. Created for reliability in harsh environments, this series provides 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

Video
Data
Audio
Contact closure

NVD110DACB-SST   1 Fiber   NVD110DACB-SSR

Video
Data
Audio
Contact closure

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

Contact Closures

Number of Channels	1
Input Type	TTL Logic (positive)/ Dry Contract
Output Type	Default: Logic LOW/ Normal Open
Dry contact Output Rating	110 VDC/125VAC, 30W/62.5VA max.
Contact output response time	2 msec.

Audio

Number of Channels	1
Input Type	Balanced or Unbalanced Line-level
Output Type	Balanced or Unbalanced Line-level
Input\Output Impedance	10KΩ/600Ω
Output Level(input 1KHz @ 0dBm)	0 dBm
Bandwidth	20Hz-20KHz
Signal-to-Noise Ration(SNR)	>70dB

LED

Video Signal Indication (Presence/Absence)	Green/Red LED lit
Data TX / RX Status	Green/Red LED lit
Contact Closure Input / Output Indication	LEDs (Green lit/OFF)
Audio Input / Output Indication	LEDs (Green lit/OFF)
Power	Green/On

Connectors

Video Input / Output	BNC
Optical Input / Output	ST (standard), FC or SC (optional)
Data Input / Output	7-pin screw terminal
Contact Closure Input / Output	5-pin screw terminal
Audio Input / Output	5-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 25.4 x 231.8mm(Max)
Shipping Weight	0.74kg

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)	NVD110DACB-SMT	1 - ch Video Transmitter with bidirectional Data, Audio and Contact Closure Transceiver	1310 | 1550nm	12dB	4	2
	NVD110DACB-SMR	1 - ch Video Receiver with bidirectional Data, Audio and Contact Closure Transceiver				
Single-mode (9/125µm)	NVD110DACB-SST	1 - ch Video Transmitter with bidirectional Data, Audio and Contact Closure Transceiver	1310 | 1550nm	18dB	20	2
	NVD110DACB-SSR	1 - ch Video Receiver with bidirectional Data, Audio and Contact Closure 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.