

Secure Network Interface Board 3 (SNIB3)

Advanced Network Communications

The SNIB3 is a leading edge communication device that provides TCP/IP version 6, Gigabit Ethernet, and AES 256 bit encryption. These features are foundational for the critical U.S. federal government security standard known as FICAM. If you already have controllers from Identiv, the SNIB3 is a drop-in replacement for the SNIB2 and SNIB communications boards.

Features

FEATURES	
ENCRYPTED COMMUNICATIONS	<ul style="list-style-type: none"> FIPS 140-2 Encryption
COMMUNICATIONS OPTIONS	<ul style="list-style-type: none"> 10/100/1000 Base-T Ethernet (Port 1) IPV4 addressing IPV6 addressing
FICAM FUTURE	<ul style="list-style-type: none"> GSA APL approved CAK reader support
GLOBALIZATION/GATEWAY	<ul style="list-style-type: none"> SNIB3 Master with downstream SNIB2 (no downstream SNIB1 support) Anti-pass back Occupancy counting Limit/day usage Absentee tracking

Description

Controller Protocols

DIGI*TRAC controllers support three protocols: SCRAMBLE*NET (SNET), XNET2 and XNET3. SNET uses 64-bit HES (similar to DES) encryption whereas the newer XNET2 uses a NIST-certified 128-bit AES based on the extremely secure Rijndael algorithm. XNET3 has the same protocol as XNET2, but with 256 bit keys.

SNET operates on RS-485 multi-drop communications and requires a Secure Network Interface Board (SNIB). XNET2 with SNIB2 operates

over 10/100BASE-T Ethernet via TCP/IP or RS-232 to the host. XNET2 with SNIB3 operates over 10/100/1000BASE-T Ethernet via TCP/IP to the host. Both SNIB2 and SNIB3 support RS-485 multi-drop communications for downstream controllers with baud rates up to 115 Kbps using XNET2 or XNET3. If you are mixing SNIB3s and SNIB2s on the same RS-485 segment, a SNIB3 must be the master. Also, if they are mixed, you must run XNET2, not XNET3.

SNIB2 and SNIB3 eliminate the need for an external LAN interface device (required with previous generation XBox) when used with Ethernet and are battery-backed by the controller UPS.

Secure Network Interface Board 2 (SNIB2)



The SNIB2 is a second-generation SNIB that uses a high-performance protocol: XNET2. The SNIB2 has three ports. One is a 10/100BASE-T Ethernet port. The second port provides a multi-drop RS-485 channel. A third port, RS-232, is available in the master SNIB2 for direct connection to a host PC (no modem).

Secure Network Interface Board 3 (SNIB3)

The SNIB3 is a third-generation SNIB that uses high-performance protocols: XNET2 or XNET3. The SNIB3 has four ports. One is a 10/100/1000BASE-T Ethernet port and the second is a 10/100BASE-T Ethernet port. The third port provides a multi-drop RS-485 channel. The fourth port is RS-232, which is not used.

NET*MUX4 Network Multiplexor

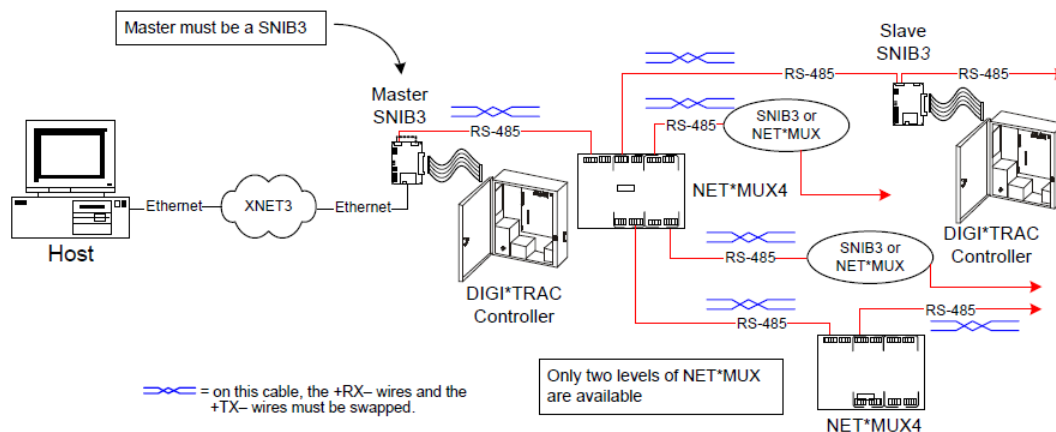


The NET*MUX4 enables segmentation of the communication path into as many as four optically isolated segments for greater distance and survivability. It has five ports (one IN and four OUT), each of which can be single-ended RS-232 or multi-dropped RS-485. Each multi-drop RS-485 port supports up to 16 DIGI*TRAC controllers. Single-ended RS-232 can be used for leased phone lines and ber optic cables.

The NET*MUX4 can be cascaded (two levels deep) to provide more than four isolated circuits. However, all NET*MUX4s must be located immediately downstream of a “polling master” (master SNIB2/3). The NET*MUX4 includes a locked enclosure, integral power supply, and battery.

Specifications

COMMUNICATIONS	
SERIAL INTERFACE PORTS	<ul style="list-style-type: none"> RS-485: multi-drop up to 16 controllers maximum (without NET*MUX4) RS-485 XNET2/3 baud rate: 9600, 38.4K, 57.6K, 115.2K RS-485: 4000 ft (1220 m) to last controller on a cable run with 22 gauge, two pair, stranded, twisted overall shield Ethernet ports: TCP/IP 10/100BASE-T (SNIB2) TCP/IP 10/100/1000BASE-T (SNIB3)



Typical SNIB3 Architectures

Specifications

COMPONENTS	
SNIB2	<ul style="list-style-type: none"> Connectors: RJ-45, RS-232, RS-485 (removable) Optically isolated serial port LEDs: T & R (RS-232), T & R (RS-485), T & R (Ethernet)
NET*MUX4	<ul style="list-style-type: none"> Connectors: direct connect RS-232 (SNIB2 only) and RS-485 per port One input and four output ports Optically isolated serial ports 16 controllers per RS-485 output One controller (SNIB2 only) per RS-232 output SNIB2/3: 9600K Primary and standby power: 90-130 VAC, 50/60 Hz, fused 180-260 VAC, 50/60 Hz, fused Uninterruptible power supply Standby battery: 1.3 AH included Enclosure: NEMA type, with conduit knockouts and key lock Dimensions: 12 x 12 x 5.5 in (30.5 x 30.5 x 14 cm) Shipping weight: 5.3 lbs (2.4 kg) Operating temperature range: 32° to 140° F (0° to 60° C) Relative humidity: 0 to 90%, non-condensing

Ordering Information

MODEL #	SPECIFICATIONS	COMMENTS
SNIB3	SECURE NETWORK INTERFACE BOARD 3	Networks DIGI*TRAC controller to PC (with Velocity version 3.6 SP1 or later) via 10/100/1000 Ethernet (TCP/IP). Optically-isolated RS-485. RS-485 for multi-drop between SNIB2/3 at baud rates up to 115Kps. Supports AES (128-bit/256-bit) encryption between the host PC and the master SNIB3. Between master SNIB3 and downstream SNIB2s (128-bit only). Master SNIB3 supports globalization between downstream controllers. UL listed.

MODEL #	SPECIFICATIONS	COMMENTS
SNIB2	SECURE NETWORK INTERFACE BOARD 2	Networks DIGI*TRAC controller to host PC (with Velocity version 2.6 SP2 or later) via 10/100 Ethernet (TCP/IP) or RS-232. Optically isolated RS-485 and RS-232 ports. RS-485 for multi-drop between SNIB2 at baud rates up to 115Kps or between master SNIB2 and downstream SNIBs at baud rates up to 19.2Kps. Supports AES (128-bit) encryption between the host PC and the master SNIB2 and between master SNIB2 and downstream SNIB2. Master SNIB2 supports globalization between downstream listed. CE.
NET*MUX4	NETWORK MULTIPLEXOR 4	Provides one input and four output ports, each RS-232 or RS-485 with status LEDs. Up to 16 DIGI*TRAC controllers per output port. Cascading supported (two levels deep). Includes enclosure. 115 VAC power supply, battery, key lock.

Identiv, Inc. (NASDAQ: INVE) is the leading global player in physical security and secure identification. Identiv's products, software, systems, and services address the markets for physical and logical access control and a wide range of RFID-enabled applications. Customers in the government, enterprise, consumer, education, healthcare, and transportation sectors rely on Identiv's access and identification solutions. Identiv's mission is to secure the connected physical world: from perimeter to desktop access, and from the world of physical things to the Internet of Everything.

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