

## NX-100 US

### NETWORK AUDIO ADAPTER



The NX-100 Network Audio Adapter can transmit high-quality audio signals and such control data as serial data over IP networks, such as LAN or Internet, in real time. It is especially useful when transmitting audio signals to remote locations, as Internet use keeps running costs lower than the use of dedicated lines. With the use of an optional rack mounting bracket, it can be mounted in an EIA Standard rack (1 unit size).

### Key features

- Audio network adapter for transmitting audio and control signals via LAN
- Unicast: up to 4 locations, multicast: up to 64 locations
- Low cost operation
- Operation on both AC and DC

## Specifications

\* 0 dB = 1 V

Power Source	24 V DC (removable terminal block (3 pins) or AC adapter AD-246 (optional) or the equivalent)
Current Consumption	200 mA (DC operation)
Audio Input	1 channel (transformer-isolated), -58 dB* to 0 dB*, balanced (MIC/LINE changeable, volume adjustable with volume control), 2 k $\Omega$ , removable terminal block (3 pins)
Audio Output	1 channel (transformer-isolated), balanced, 600 $\Omega$ , removable terminal block (3 pins)
Frequency Response	50 - 14,000 Hz (when sampling frequency is 32 kHz)
Distortion	Under 0.3% (1 kHz, when sampling frequency is 32 kHz)
Control Input	8 channels, no-voltage make contact input, open voltage: 12 V DC, short-circuit current: 10 mA, removable terminal block (9 pins)
Control Output	8 channels, open collector output (polarized), withstand voltage: 30 V DC, control current: 50 mA max., removable terminal block (9 pins)
Network I/F	10BASE-T/100BASE-TX, Auto-Negotiation
Serial I/F	RS-232C (DCE I/F), D-sub connector (9P, male), 9600bps - 115200bps
Network Protocol	TCP, UDP, ARP, ICMP, HTTP, RTP, IGMP
Audio Packet Transmission System	Unicast (Up to 4 simultaneous transmissions), Multicast (Up to 64 simultaneous transmissions)
Operating Temperature	0 °C to +50 °C (0 °C to +40 °C when AC adapter is in use)
Operating Humidity	Under 90% RH (no dew condensation should be produced)
Finish	Steel plate, black, 30% gloss
Dimensions	210 (W) x 44.7 (H) x 188 (D) mm
Weight	1.2 kg
Optional Accessories	Rack mounting bracket: MB-15B-BK (for rack mounting one NX-100 unit), MB-15B-J (for rack mounting two NX-100 units) AC adapter: AD-246

Note: When you need the AC adapter, be sure to consult your TOA dealer.

## A&E specifications

The network audio codec shall be IP-addressable and convert analog audio (mic or line level) to standard IP packets for transport over an IP-based network including local area, wide area and the Internet. The device shall be capable of simultaneous transport of audio, serial RS-232 data and contact closures. The device shall support three audio quality modes and have variable sample rate and audio bandwidth with a minimum latency/delay of 20 ms. Multiple error correction modes shall be available to address potential packet loss in high network traffic environments.

The network interface shall be 10BASE-T/100BASE-TX, Auto-Negotiation and utilize the network protocols TCP/IP, UDP, HTTP and RTP. The audio input shall be balanced, transformer-isolated, MIC/LINE switchable (-58 dBV to 0 dBV, 2k ohms) with adjustable volume control and plug-in screw connector. The audio output shall be balanced, transformer-isolated, (0 dBV, 600 ohms), with plug-in screw connector. Specifications shall include frequency response of 50 to 14k Hz and distortion of under 0.3% (1k Hz, sampling frequency 32k Hz).

The unit shall be capable of Unicast transmission to up to 4 simultaneous units/locations over LAN/WAN/Internet, and Multicast transmission to up to 64 simultaneous units/locations over LAN/WAN. The device shall include Java-based software for configuration, operation and management with password protected access. The device shall include a built-in web server for control and monitoring from any network-based PC with password protected access.

The control inputs shall include 8 channels, no-voltage make contact input, open voltage: 12 VDC, short-circuit current: 10mA with plug-in screw connector. The control inputs shall be individually programmable to initiate and terminate stored transmissions without the need for dedicated PC-based or other control equipment. Each unit shall have twenty programmable distribution presets. The control outputs shall include 8 channels, open collector output, withstand voltage: 30 VDC, control current: 50 mA max. with plug-in screw connector. Adjustable contact off delay time shall be available.

The front panel shall include Link/Active, Full-Duplex/Collision, Status, Error, Run LED indicators plus recessed Reset button. Firmware shall be FLASH-type and upgradeable from any network PC. Power requirements shall be 24 VDC (plug-in screw connector) or AC adapter (optional) with current consumption of 200 mA. The finish shall be black steel plate, 30% gloss. Dimensions (W x H x D) shall be 8.27" x 1.81" x 7.4" (210 x 46 x 188 mm) and weight shall be 2.65 lbs. (1.2 kg).

The network audio adapter shall be TOA model NX-100.

The AC power supply shall be TOA model AD-246.

The rack-mount kits shall be TOA model MB-15B-BK (1 NX-100).

The rack-mount kits shall be TOA model MB-15B-J (2 NX-100).