

APPLICATIONS

- Professional Audio Networks
- DVB compliant encoding of audio signals
- Satellite feeds
- Distribution networks for radio stations
- Feeding digital cable networks
- Studio Transmitter Link
- Point-to-point connections
- Point-to-multipoint connections (up to 16 destinations)

FEATURES

- Up to 12 digital stereo channels (option for up to 16 channels)
- Up to 4 analog stereo channels (option for up to 8 channels)
- MPEG TS over IP outputs (unicast or multicast)
- DVB-ASI output (optional)
- Output of elementary streams over IP
- Digital MPX transport
- Transmission of ancillary data (over IP or serial interface)
- Optional 24 GPIOs
- Remote controllable over IP via SNMP
- RAVENNA / AES67, Dante®, ST 2110-30, ST 2110-31

Compression algorithms for TS

- MPEG 1/2 Layer 2
- AAC (optional)
- Enhanced aptX (optional)

Compression algorithms for ES

- Fraunhofer xHE-AAC® (optional)
- AAC (optional)
- Linear PCM
- MPEG-1/2 Layer 2/3
- Enhanced aptX (optional)
- OPUS
- G.711, G.722

ENC7000

Multi-Channel Audio Encoder

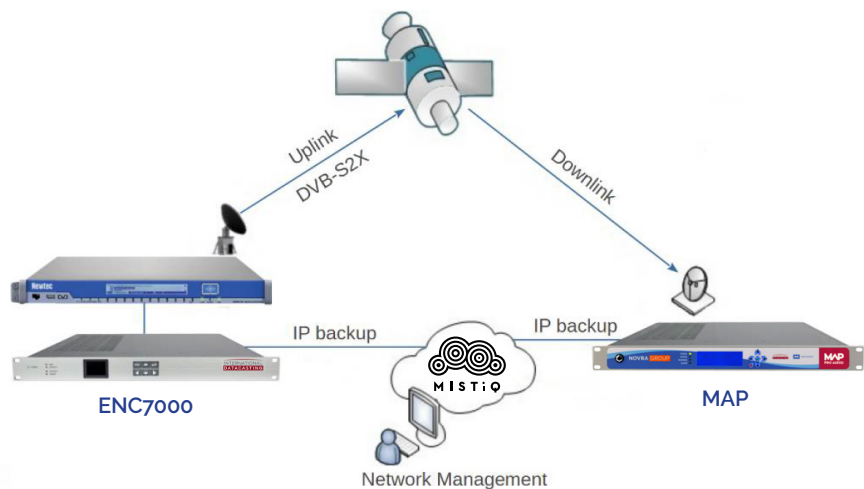
The **ENC7000** Audio Encoder features MPEG-4 Advanced Audio Coding (MPEG-4 AAC) and MPEG-1 Layer 2 encoding capabilities. All of the common bit rates and sample rates are offered to enhance the IP delivery of Audio.

The **ENC7000** Audio Encoder sets standards for high quality audio encoding. Based on the proven P561 platform, it provides highest signal quality, best build quality and service without compromise. Customers around the world trust our market leading IP Audio Encoder. Either up to 16 digital or up to 8 analog stereo audio channels can be encoded simultaneously. They can then be output as MPEG-2-compliant DVB transport streams or elementary streams via the IP interface. Several configurations are available to flexibly adapt the audio input configuration to the network requirements. Each channel can be configured individually.

The **ENC7000** Encoder can be conveniently managed via the integrated web interface

with all common web browsers. The device can also be monitored and managed via SNMP or REST-API. The unit is built in a compact 19" 1 U housing. The transmission of ancillary data and switching contact information (GPIO) is possible with the default interfaces. Optionally, a second data interface can be used as a backup function.

The **ENC7000** Encoder is CE and RoHS compliant to meet the demand of users worldwide. The basic unit is licensed for one audio encoder channel and the functions RDS and GPIO. Further channels and options are possible. If you need more than 16 stereo channels, our **ENC6000** Encoder is the best choice.



TECHNICAL



AUDIO INPUT	
Digital, AES-3 (max. 12 stereo) (optional max. 16 stereo)	<ul style="list-style-type: none"> • XLR, Balanced for stereo input channels 1-8 • D-sub 25 connector for stereo input channels 9-12 (AES/EBU TASCAM pin assignment) • Optional D-sub 25 connector for channels 13-16 • Digital MPX transport
Analog, Balanced (max. 4 stereo) (optional max. 8 stereo)	<ul style="list-style-type: none"> • XLR, Balanced for stereo input channels 1-4 • Optional D-sub 25 connector for stereo input channels 5-8 (Analog TASCAM pin assignment) • Audio Frequency Range: 20 Hz to 20 kHz (\pm 0.3 dB) • THD+N (1 kHz at max. level): < 0.01 % at 1 kHz • Crosstalk attenuation at 1 kHz: > 100 dB • S/N ratio (weighted): > 80 dB
RAVENNA / AES67	<ul style="list-style-type: none"> • Input of up to 16 stereo channels • Formats: L16, L24, L32 • Sampling rate: 32 kHz, 48 kHz • Channels: 1 to 64 • ST 2110-30 and ST 2110-31 compatible
Dante®	
AUDIO COMPRESSION	
Algorithms (some require additional licenses)	<ul style="list-style-type: none"> • ISO/IEC 1172-3, 13818-3 MPEG-1/2 Layer 2/3 • ISO/IEC 13818-7 MPEG-2 AAC-LC • ISO/IEC 14496-3 MPEG-4 AAC-LC, • HE-AAC V1/2, AAC-LD, AAC-ELD • Fraunhofer xHE-AAC® • Enhanced aptX • Linear PCM • OPUS • G.711, G.722
Encoding bit rate	<ul style="list-style-type: none"> • All bit rates are supported according to the standards of the respective algorithms • Sampling rate: 32 kHz, 48 kHz
Modes	Stereo, Dual, Mono channel
Ancillary data	<ul style="list-style-type: none"> • Private stream via UECP within the MPEG-2 transport stream or embedded in MPEG audio data • RS-232 interface (optional) • Breakout cable (optional): 8 connectors, conversion from HD26 to DB-9
TRANSPORT PROTOCOLS	
ASI Output (optional)	DVB-ASI (BNC connector)
IP Output	<ul style="list-style-type: none"> • Output of DVB MPEG-2 transport streams including service information according to ETSI EN 300 468, compliant to "Pro-MPEG Code of Practice #3 release 2" (FEC optional, see below) • Output of elementary streams • FEC according to ST 2022-1 (optional) • Seamless Protection Switching according to ST 2022-7 (optional) • SRT (Secure Reliable Transport)
UDP Multicast IP input	Mux with 8 stereo Audio (Analog and Digital) at S1.No.1 > 1 Mb/s

NETWORK INTERFACES	
Ethernet	<ul style="list-style-type: none"> • 3 separate Ethernet interfaces (IEEE 802.3, RJ45, 100/1000 Mb/s) • 2x Data (elementary / transport streams via IP) • 1x Control (Web interface, SNMP and Ancillary Data)
VLAN Management	
SYSTEM CONFIGURATION, CONTROL AND MONITORING	
Management / Monitoring	<ul style="list-style-type: none"> • Via Ethernet by accessing the on-system HTTP web server with any Internet browser • REST API • Silence detection (optional) • Via Ethernet with SNMP Traps in case of triggered alarms • Via the front panel keyboard and display
POWER REQUIREMENTS	
Supply voltage	<ul style="list-style-type: none"> • Integrated switching power supply, input voltage 100 to 240 V AC \pm 10 %, 50 to 60 Hz • -48 V DC (optional)
Redundant power supply (optional)	<ul style="list-style-type: none"> • The optionally available redundant power supply protects the operation of the device and comes with the following functions: • Measurement of the power supply voltages, values are provided via web GUI or SNMP • SNMP trap generation on power supply fail • Activation of switching contacts on power supply fail • Automatic switch-over in case of power supply fail
Power consumption	< 20 W
PHYSICAL PARAMETERS	
Chassis	• 19" rack mount cabinet, 1 U
Size	<ul style="list-style-type: none"> • Width: 483 mm • Depth: 360 mm • Height: 44 mm
Weight	4.5 kg
ENVIRONMENTAL CONDITIONS	
Operating temperature	0°C to 45°C
Storage temperature	-20°C to 70°C
Humidity	20 % to 95 %, non-condensing
Certifications	<ul style="list-style-type: none"> • DIN EN IEC 62368-1 • DIN EN IEC 61000-6-2:2005
Ambient Temperature	-10 degrees C to 45 degrees C For indoor equipment