STREAMER MAX

AUDIO OVER IP ENCODER / DECODER

- Half-Duplex and Full-Duplex audio connection
- Professional Hi-Quality analogue and Digital In/Out with A/D and D/A conversion
- Optional connection via Bluetooth, WiFi, UMTS Modem (*)
- Data tunnelling with certified USB interfaces (like RS232-RS485) to control remote devices
- 2 GPin and 2 GPout with data tunneling operative mode
- Web based configuration
- Multiple audio codec protocols and bitrates
- Highly accurate rate and Jitter correction in every digital audio paths
- Microphone XLR input

(*) Optional, only certified devices

AXEL TECHNOLOGY

STREAMER MAX

STREAMER MAX is an hardware device for audio signals coding/encoding over IP (bidirectional/full duplex).
It is compatible with most of worldwide standards and it has an architecture open to support future formats and customizations. It combines application versatility (Studio, STL, Portable) with easiness of use.

OVERVIEW:

STREAMER MAX is an hardware device for audio signals encoding / decoding over IP (bidirectional/full duplex).
It is compatible with most of worldwide standards and its architecture is open to support future formats and customizations.
It combines application versatility (Studio, STL, Portable) with ease of use.
STREAMER MAX has both analogue and digital inputs / outputs in order to allow maximum flexibility of installation and connectivity. Specifically designed for broadcast applications, **STREAMER MAX** is a high quality and high performance device with professional features such as data tunneling for Rs-232 serial port and GPIO management.
STREAMER MAX is also suitable for consumer applications, from audio stream in point-to-point environments to audio distribution for public addressing.
The duty aluminum body, the battery box and the universal power supply allow installation in any kind of environment in any conditions.

MAIN FEATURES:

- Mono and dual communication (Full-Duplex)
- Unicast point-to-point and multicast configuration
- Integrated Shoutcast Source Feed
- Audio Changeover/backup: switch to backup audio source
- Protocols : Liner Pcm, OGG Vorbis, MP2 (*option), MP3 (*option), AAC (*option), AAC+ (*option)
- Integrated Web Server for wire set up (LAN/internet, UMTS)
- Professional Audio Quality Analogic and Digital Audio Interfaces

APPLICATIONS:

- Audio over-ip distribution
- Point-to-point links (STL)
- Multicast connections
- Radio InStore/Brand Audio Networking
- Audio distribution for P.A

STREAMER MAX TECHNICAL SPECIFICATIONS

MAIN FEATURES

Transport protocols:	UDP raw, UDP/IP, TCP/IP, HTTP, RTP
Sampling Rate:	32 kHz/44.1kHz/48 kHz (Full-Duplex Mode 48kHz only)
Trasmission/Reception protocol and available bitrates:	
Linear WAV:	16 Bits PCM linear
OGG VORBIS:	Bitrate in kbit/sec (64, 80, 96, 112, 128,160,192) - CBR Quality: 0(Best),1, 2, 3, 4, 5(Default), 6, 7, 8, 9(Worst) -VBR
MPEG1-L3 (MP3) (*Optional)	Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128,160,192) - CBR Mode: Stereo, Joint Stereo, Dual Channel, Mono, Auto
MPEG1-L2 (MP2) (*Optional)	Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128,160,192) - CBR Mode: Stereo, Joint Stereo, Dual Channel, Mono, Auto
AAC (*Optional)	Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128,160,192) - CBR
HEAAC, HEAACv2 (*Optional)	Bitrate in kbit/sec (24, 32, 40, 48, 56, 64) - CBR

I/O INTERFACES

- 1x Universal power supply 100-240 Vac
- 1x Slot SD Card o SDHC
- 1x RJ45 full duplex IEEE 802.3 10/100Mb/s, WiFi*, 3G*
- 2x USB 2.0 FullSpeed
- 2x GPInputs via Optocoupler
- 2x GPOut via Optocoupled open collector output
- 2x XLR Input: Analog o Digital (AesEbu)
- 2x XLR Output: Analog o Digital (AesEbu)
- 1x Graphic Display LCD (Elite Version Only)
- 1x Encoder with Enter button (Elite Version Only)
- 1x Headphone jack Output (Elite Version Only)
- 1x front USB 2.0 FullSpeed (Elite Version Only)

AUDIO FEATURES

Analog input impedance:	10KOhm
Analog input sensibility:	-12.0dBu to +12.0dBu
Analog max input/output:	+20dBu
Digital input impedance:	110Ω
Digital Input Rates:	32-96 kHz with sample rate conversion and jitter correction
Bandwidth:	20Hz – 24kHz (Analogic Sampling Rate 48Khz)
Signal-to-noise (S/N):	110 dB A-weighted (90dB nominal @ 0.0dBu sensitivity)
CrossTalk:	>80 dB @ 10kHz
THD:	0.005% @ 1kHz
Input Digital Sensitivity:	-30.0 dBFs, -5dBFs
Digital Output Rates:	48kHz Internal or 32-48kHz Synch to AesEbu input
Digital nominal input:	0.0 dBFs - -25.0 dBFs
Dimensions:	217x200x44 mm (b x w x h)
Weight:	2 Kg (3 Kg with batteries)

ORDERING INFO

Code:	Product:	Description:
A116010000	STREAMER MAX MKII	Bidirectional Encoder/Decoder for streaming audio over IP. Analog and AES/EBU I/O. Formats: PCM, MP3, AAC, AAC+, Vorbis, Shoutcast, Icecast. Distributes audio over standard TCP/IP,LAN,WAN and UMTS networks with external modem. GPIO. Audio backup on USB-HD. Unicast/Multicast
A116010001	STREAMER MAX ELITE MKII	Bidirectional Encoder/Decoder for streaming audio over IP. Graphic display and encoder. Analog and AES/EBU I/O. Formats: PCM, MP3, AAC, AAC+, Vorbis, Shoutcast, Icecast. Streams audio over standard TCP/IP,LAN,WAN and UMTS networks with external modem. GPIO. Audio backup on USB-HD. Unicast/Multicast

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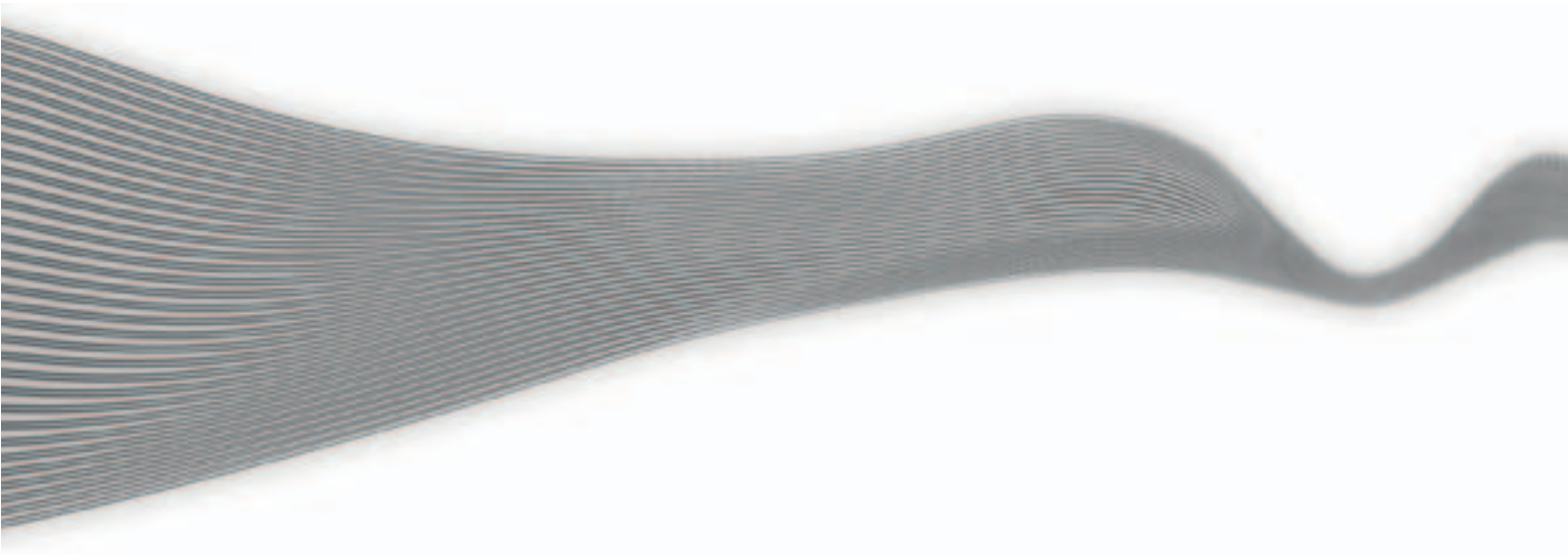
STREAMER-RX

MP3 / MP2 Audio Stream DECODER Box over IP

The easiest and cost effective way to create your audio network. Small and compact, completely autonomous audio decoder box. Directly pluggable on the IP network. Easy to install and remotely manageable.



General Features

- Distributes audio effectively over existing standard TCP/ IP networks
- Streaming audio in LANs, WANs or Internet
- MPEG-Layer II (MP2), III (MP 3) decoder
- Unlimited number of In-streamer devices in any system
- Interface to OEM through DLL
- Multicast or Unicast configuration
- GPIO for remote control of peripherals and interactivity
- Balanced audio output available on option

Product Overview

Streamer-RX is designed for reliably reproducing and distributing MP2 and MP3 audio over Ethernet using IP protocols. **Streamer-RX** is the professional solution for applications requiring audio to be sent cost-effectively and easily over standard IP Networks covering long distances and/or to multiple locations.

Streamer-RX supports compressed audio in MP2 (MPEG1 Layer II) and MP3 (Layer III) formats. **Streamer-RX** is ideal for audio transmission, live sound and streaming in standard IP/ Ethernet networks.

Streamer-RX applications can be user designed to control all units linked to external equipment with the factory supplied OEM library (DLL). Fully programmable routing control permits sending audio to any **Streamer-RX** or multiple groups of **Streamer-RX**'s.

Applications

- Over-IP receiver for broadcast internet radio with optional interactivity, opinion polling terminal ...
- Information and public address for airports, bus and railway terminals, sports arenas, outdoor theaters, cruise ships, …
- Combined sound distribution system, public address and emergency evacuation control, ...
- Zoned sound reinforcement for boardrooms, lecture halls, museums, auditoriums, ...
- Global audio distribution via TCP/IP and UDP, multi-channel audio over standard IP Network …
- Central operation in crisis and control centers, tunnel control centers, parking surveillance centers, ...
- Background music/paging for theme parks, hotels & convention centers, shops, ...
- Advertising networks for shopping malls, supermarkets, fairs, conventions, large factories, ...
- Emergency evacuation control for schools and universities, stadiums, hospitals, ...

Technical specifications

AUDIO
Format: (TX) MPEG1/2-Layer III (RX) MPEG1/2-Layer II and III for UDP (raw) audio streaming
Bit rate encoding: VBR from 32 to 192 Kb/sec (MPEG1-L3), from 8 to 160 Kb/sec (MPEG2-L3)
Sampling frequency: 16/22,05/ 24/32/44,1/48 Khz
Mode mono and stereo
Bit rate decoding: from 32 to 384 Kb/sec (MPEG1-L2), from 32 to 320 Kb/sec (MPEG1-L3), from 8 to 160 Kb/sec (MPEG2-L2/3)
Sampling frequency: 8/11,025/ 12/16/22, 05/24/32/44, 1/48 Khz
Mode: stereo, joint stereo, dual channel, single channel
Audio Out : line level on 3.5 mm jack connector
line level balanced output on terminal blocks (optional)
Frequency response 20 - 20.000 Hz (+/- 3 dB)
Signal to noise: ratio > 94 dB
Crosstalk: >80 dB
THD 0,003%
NETWORK: Interface RJ45 female connector full duplex IEEE 802.3 10/100 Mb/s protocols UDP (raw) encoding/ decoding, HTTP (TCP) only decoding
REMOTE CONTROL: Via internet, local ethernet network by Software or API
POWER REQUIREMENT: 12/24V DC or AC 90 mA (6 mm coaxial connector)
Power Supply Unit included
DIMENSION: 110 x 80 x 30 mm

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STREAMER-RX

STREAMER-TX/RX

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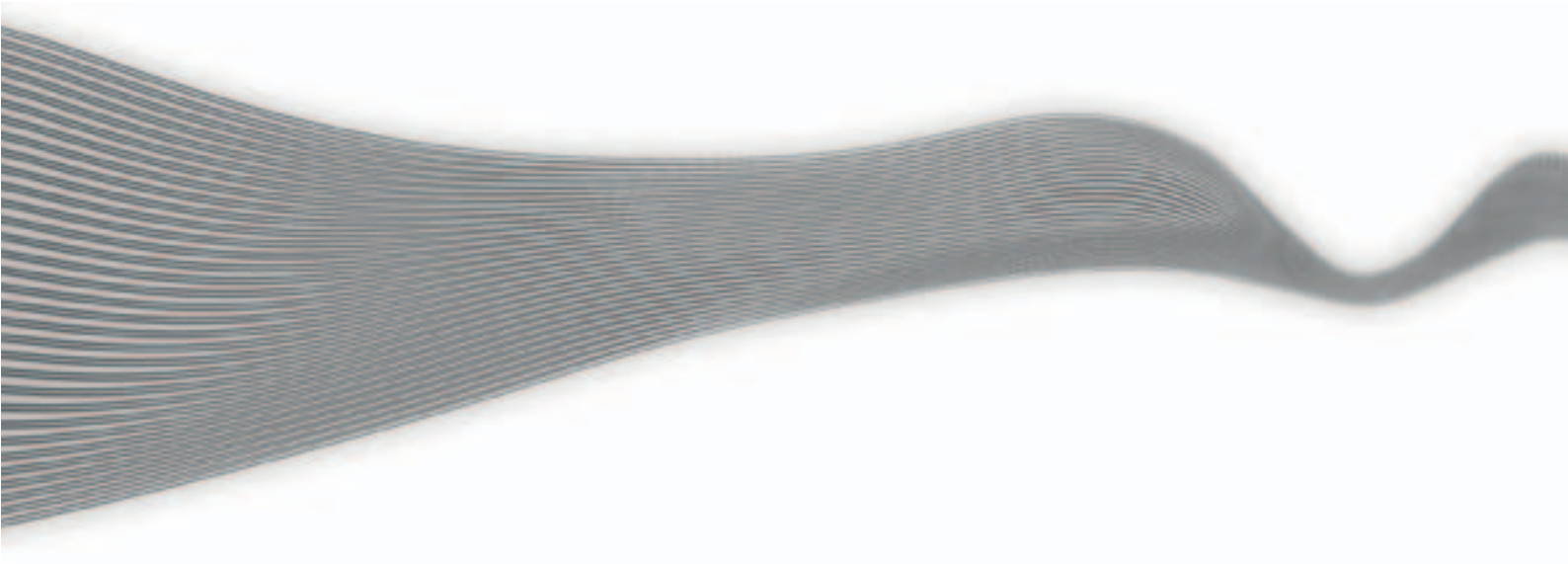

General Features

- Distributes audio effectively over existing standard TCP/ IP networks
- Streaming audio in LANs, WANs or Internet
- MPEG-Layer II (MP2) decoder, III (MP 3) encoder/ decoder
- Unlimited number of Streamer-TX/RX devices in any system
- Interface to OEM through DLL
- Multicast or Unicast configuration
- GPIO for remote control of peripherals and interactivity
- Balanced audio input and output on option

Product Overview

Streamer-TX/RX is designed for reliably encoding (MP3 only) reproducing and distributing MP2 and MP3 audio over Ethernet using IP protocols. **Streamer-TX/RX** is the professional solution for applications requiring audio to be sent costeffectively and easily over standard IP-Networks covering long distances and/or to multiple locations.

Streamer-TX/RX supports compressed audio in MP2 (MPEG1 Layer II) only for decoding and MP3 (Layer III) for encoding and decoding formats. It is ideal for audio transmission, live sound and streaming in standard IP/Ethernet networks.

Streamer-TX/RX applications can be user designed to control all units linked to external equipment with the factory supplied OEM library (DLL). Fully programmable routing control permits sending audio to any **Streamer-TX/RX** or multiple groups of **Streamer-TX/RX**.

Applications

- Over-IP receiver for broadcast internet radio with optional interactivity, opinion polling terminal ...
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Sampling frequency: 8/11,025/ 12/16/22, 05/24/32/44, 1/48 Khz
Mode: stereo, joint stereo, dual channel, single channel
Audio Input: line stereo unbal. analog input (PinRca), line stereo balanced on terminal blocks (optional)
Audio Out : line level on 3.5 mm jack connector, line stereo balanced on terminal blocks (optional)
Frequency response 20 - 20.000 Hz (+/- 3 dB)
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