IQOYA X/LINK-LE

Product sheet

digigram

The 2 channel IP Audio Codec with all the essentials at an attractive price

IQOYA X/LINK-LE is a 1U rack streamlined IP audio codec designed for live remote broadcasting and program distribution over IP. It is a perfect fit for delivering a stereo source (or two mono sources) over IP networks for STL & SSL link, DVB audio, WEB radio and also for full-duplex live remote broadcasts.

IQOYA X/LINK-LE benefits from all the major features of X/LINK but comes at a lower price point. It can be used in legacy analog or AES/EBU audio environments, as well as in full-IP audio infrastructures (AES67, Ravenna, Livewire), making it a good investment for the migration to IP audio. Like all the IQOYA products, X/LINK-LE is based on Fluid IP, the Digigram technology for reliable and resilient audio transmission over all types of IP networks including inexpensive unmanaged IP networks. Based on low consumption and fanless powerful hardware platform, IQOYA X/LINK-LE is designed for 24/7/365 use.

SDHC card reader for backup playlists, and loading/saving the codec configuration

High processing power allowing low latency audio connections, multi-format encoding and multi-protocol streaming

Easy and fast status monitoring: status LEDs, vu-meters, headphones



2 analog I/O's and 1 stereo AES/EBU I/O

4 GPIO's for signalling of physical status

2 internal redundant PSUs for secure operation



Switchable hardware by-pass of audio inputs to outputs in case of power supply failure

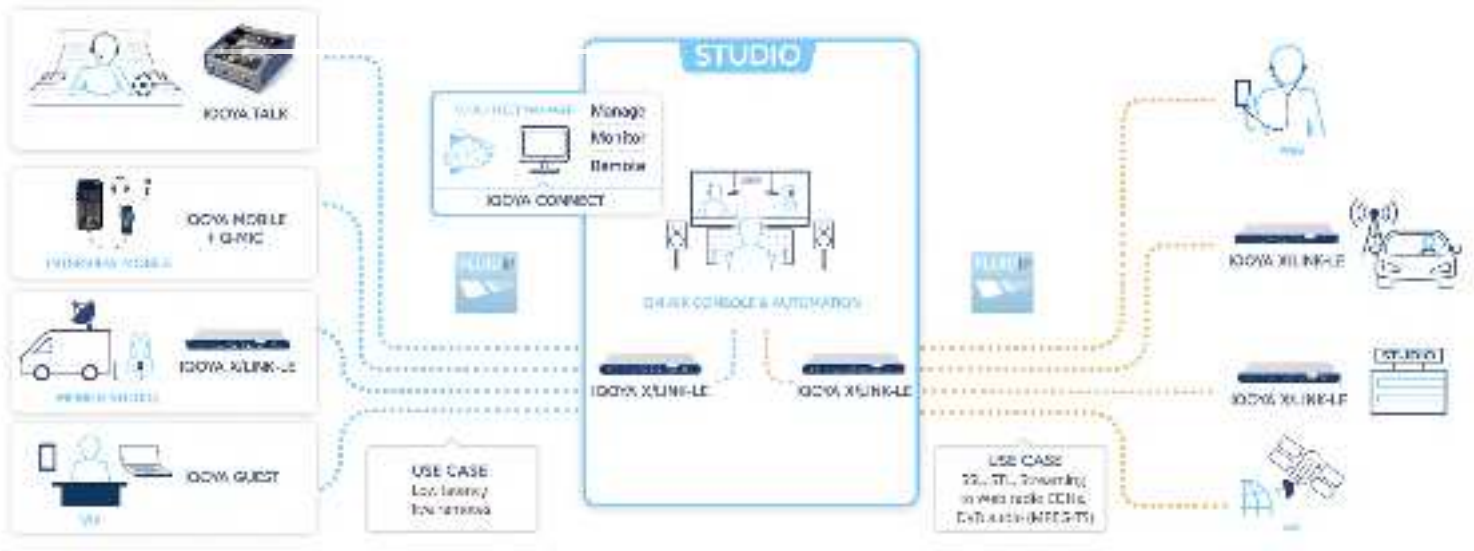
RS232 port for serial data signalling

4 network ports for full separation of IP traffics:

- AES67, RAVENNA, Livewire (LAN)
- Redundant dual streaming (WAN)
- Remote management (LAN / WAN)

Key Points

- Cost-effective solution with essential features, and no compromises on reliability
- Adapted to legacy audio infrastructures and full-IP audio infrastructures
- EBU/ACIP compliance for interoperability with third-party codecs and any SIP infrastructure
- Multiple levels of redundancy for audio service continuity and failsafe operation: 2 power supply units, 4 network ports with stream redundancy, audio failovers, audio hardware by-pass, and 1+1 hot device redundancy
- Control and configuration via SNMP and Web services for easy integration with codec and network management/monitoring systems.



I/Os and POWER

2 balanced analog audio I/Os with 24 bit converters, and 1 stereo AES/EBU I/O with hardware sample rate converter, and 2 AES67 or Ravenna or Livewire I/Os	8 GPI / 8 GPO on Sub-D25 connector
	1 RS232 port for serial data tunneling
4 ethernet ports: 1x100Mbps + 3x1Gbps on RJ-45 connectors	2 internal redundant PSUs 100-250VAC (Optional 100-250VAC / -48VDC) (Max 15W consumption)

NETWORKING

RTP/UDP, Icecast/Shoutcast, HLS, SIP/SDP, STUN	PTP, NTP
DHCP, IGMPv2 and v3, QoS (VLAN tagging, DSCP)	SNMP, HTTP

ENCODING, DECODING AND STREAM PROTECTION

Audio encoding formats: PCM linear 16/20/24 bits, ISO MPEG-½ Layer II and Layer III, MPEG-4 AAC-LC, AAC-LD, HE-AACv1, HE-AACv2, AAC-ELD, Opus	Selectable FECs for ACIP/RTP streams (from +10% to +100% IP bandwidth) Pro-MPEG CoP #3 FEC for MPEG-TS streams
Dual port redundant streaming with spatial and time diversity	Adaptive and resilient audio streaming (Fluid-IP)

FUNCTIONS

Multi-format encoding of the audio sources	Network traffic separation (WAN, LAN, Management)
Unicast, multi-unicast, multicast, multi-multicast addressing	Configuration and monitoring via intuitive Web GUI and via SNMP
3 decoding priorities per output program with choice of the audio source on each priority: IP stream, playlists on SDHC card, or audio inputs. The switch between decoding priorities is automatic according to adjustable criteria	Hardware by-pass of the audio inputs to the audio outputs (analog and AES/EBU)
Silence detection on the audio inputs and on the received IP audio streams	Available clock synchronization are internal, AES/EBU inputs, PTP, livewire clock
Place calls from an address book or receive calls for live broadcasts (SIP, Direct SIP, Symmetric RTP)	Optional: Simultaneous multi-protocol streaming
Auxiliary data tunneling of physical or IP serial data and GPIs (including RDS-UECP)	Optional: Audio output synchronization of decoders based on NTP or PTP
Insertion of metadata to Icecast/Shoutcast streams (yellow pages and on-the-fly)	Optional: AES transparency without the need of an external GPS synchronized clock