

# Multi-channel PCM audio transmission system



# MAGIC ACX

Dante™ WAN BRIDGE



The system **MAGIC ACX** DANTE™ WAN Bridge enables the transmission of up to 32 uncompressed audio signals via wide area networks (WAN).

The audio connection for the audio inputs/outputs is provided by the integrated 32-channel DANTE™ interface, which has redundant GbE interfaces and of course also supports AES67.

However, there are three major problems with a wide area transmission with DANTE™:

- Possibly different clock signals at the sender and receiver
- High jitter
- Network dependent transmission delays

DANTE™ allows a maximum latency of 5 ms, which is fully sufficient in local networks.

However, in the case of long-distance transmissions (for which DANTE™ was not developed), the delay of individual IP packets can vary so much that they arrive too late at the receiving system. This inevitably makes dropouts in the audio signal audible.

The system solves the problem of different clocks by an intelligent adaptation of the sample rate (SRA = Sample Rate Adaptation).

Problems caused by high jitter as well as long transmission delays are effectively prevented in the system by an adjustable jitter buffer in the range of 2 ... 500 ms or alternatively by the automatic jitter buffer adjustment which can be activated.

Thus, transmissions via the Internet over long distances are also conceivable.

The transmission takes place via one of the two standard network interfaces. The number of channels to be transmitted is freely configurable. If required, the transmit and receive data streams can be physically separated.

- 32 audio channels via DANTE™
- AES67 compatible
- PCM16 / PCM24
- 48 kHz Sampling frequency
- Automatic Sampling Rate Adaptation
- Jitter buffer up to 500 ms
- Audio signal detection
- 2 x 100 Mbit/s Ethernet
- 8 x TTL GPIO / 8 x Relay
- VLAN/QoS support
- SNMP v1, v2c
- System internal log file
- Optional redundant power supply
- Comfortable Windows management software

