.::::. noisypeak

the **apex** of video over ip solutions

Datasheet

listenperfect

High-density, high-performance loudness control software for broadcast operators and content providers

Automated loudness controls for hundreds of linear streams

Video pass-through

High-density software solution

Support SPTS/MPTS inputs

ITU-R BS.1770 compliance

solution **brief**

Audio loudness control is an essential part of the audio-video workflow directly correlating to users' experience and content consumption satisfaction. Loudness control is a recognised point of contention and is addressed by ITU-R BS.1770-4 recommendation for algorithms to measure audio programme loudness and true-peak audio level.

Noisypeak ListenPerfect covers the following key goals of loudness controls:

· Modern digital sound transmission techniques offer an extremely wide dynamic range;
· Modern digital sound production and transmission techniques provide a mixture of mono, stereo and 3/2 multichannel formats
· The listeners desire the subjective loudness of audio programmes to be uniform for different sources and programme types
· The purpose of loudness control in programme exchange, in order to reduce audience
· It is essential to have a single recommended algorithm for objective estimation of subjective loudness;
· Sudden and abrupt changes in audio levels may lead to an uncomfortable listening experience
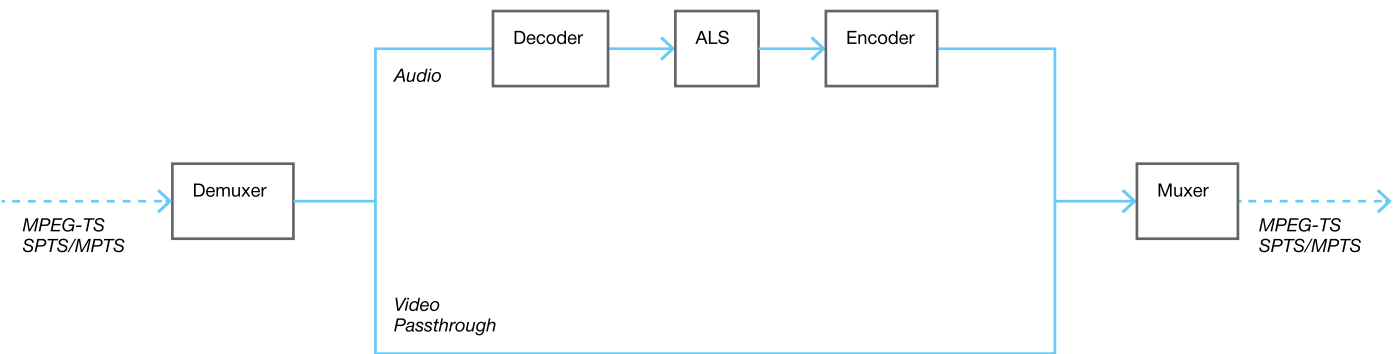
key **features**

· Normalize audio loudness to a target level on a per program basis
· Simultaneously process multiple programs out of SPTS/MPTS sources
· Generate multicast/unicast SPTS outputs
· Pass-through video with audio synchronization
· "Set and forget" loudness control
· User-controllable parameters for:
       · Integrated Loudness
       · Maximum True Peak
       · Loudness range
· Adaptive real-time adaptation to the source audio-material
· Integration with external systems via SNMP, JSON/REST APIs
· A part of the Noisypeak UEN2/Connected transcoding solution
· handles AAC, MP2/3, AC3, EAC3 at inputs

we **offer**

Noisypeak ListenPerfect software solution implements almost real-time audio loudness control with the capability to control 200+ channels on a single Dual Xeon server. The solution provides settings to enable conformance to ITU-R BS.1770 including:

· EBU R128
· ATSC A/85
· TR-B32
· OP-59

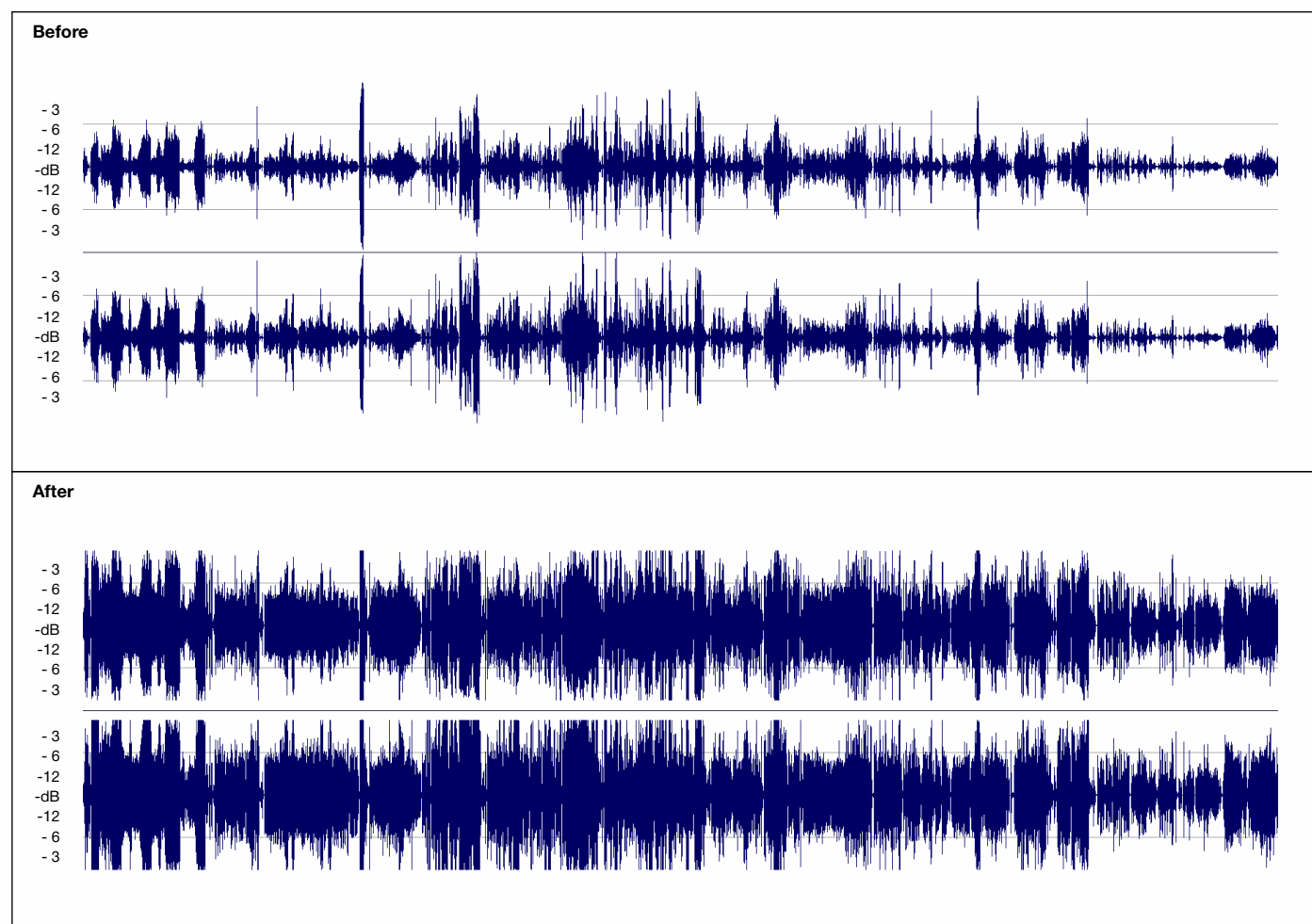## noisypeak automatic loudness control solution

```
                          ┌─────────┐     ┌─────┐     ┌─────────┐
                          │ Decoder │ →   │ ALS │ →   │ Encoder │
          Audio           └─────────┘     └─────┘     └─────────┘
        ┌─────────┐
  ─ ─ ─→│ Demuxer │ ──────────┐                                      ┌───────┐
        └─────────┘           │                                   →  │ Muxer │ ─ ─ ─→
  MPEG-TS                                                            └───────┘
  SPTS/MPTS                                                           MPEG-TS
                          Video                                       SPTS/MPTS
                          Passthrough
```

Noisypeak Audio Templates

Audio Templates / Edit Template / AAC 64

TEMPLATE NAME	⑦
AAC 64	

CODEC	⑦
AAC encoder ☰	

SAMPLERATE	⑦	BITRATE	⑦
48000		64	

INTEGRATED LOUDNESS	⑦
-16	

MAXIMUM TRUE PEAK	⑦
-1.5	

LOUDNESS RANGE	⑦
14	

Save

before and after loudness normalization

Before

After