Digital TV
ATSC • DVB • ISDB

Digital Radio
DAB • DAB+ • DRM

Key Features

- 24/7 SNMP based Loudness + Audio monitoring
- visual Loudness monitoring via live meters
- monitoring of 100+ audio channels simultaneously on a single device
- support of Digital TV, Mobile DTV and Digital Radio
- IP and ASI input
- RF input (Digital TV, Mobile DTV)

Loudness Measurements

- Integrated gated Loudness according
  - ITU-R BS.1770.3
  - EBU R-128
  - ATSC A/85 - CALM act compliance
- Integrated gated Loudness
  - over past minute
  - over past 1h, 6h and 24 hours
- Momentary Loudness ten times a second
- Short Term Loudness over past 3 seconds
- True Peak Level (TPL) measurement of every sub-channel incl. oversampling for optimal accuracy
- Loudness Range

Audio Monitoring

- Audio Signal loss
- Audio Channel Freeze detection
- Audio Channel Silence detection
- Audio Sub-Channel loss

SAM-LM 1000 is a cost efficient turnkey solution based on common server- and interface hardware. It enables network operators to monitor the Audio parts of Digital TV and/or Digital Radio broadcasts both via SNMP and visually, unattended at 24/7.

A large number (100+) of Audio channels can be monitored simultaneously in real-time on a single device, providing a very small footprint and both low CAPEX and OPEX.

The solution offers a wide range of use cases:

- 24/7 SNMP based Loudness- and Audio monitoring in real-time
- visual Loudness monitoring of all Audio channels and sub-channels simultaneously
- in-depth remote problem analysis on all technical layers

SAM-LM 1000 is suited for operation in the head-end, at transmitter side and in the field. Also lab use is possible.
**Technical Specification**

<table>
<thead>
<tr>
<th></th>
<th>RF Input</th>
<th>ASI Input</th>
<th>IP Input</th>
<th>Processor</th>
<th>HD</th>
<th>RAM</th>
<th>OS</th>
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</thead>
<tbody>
<tr>
<td>Rack Server 1HU</td>
<td>1..4</td>
<td>1..4</td>
<td>no limit</td>
<td>Intel Core i3</td>
<td>500 GB</td>
<td>4..8 GB</td>
<td>Windows 7/8 Prof.</td>
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<td>Rack Server 2HU</td>
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<td>Intel Core i3/5/7</td>
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<td>Windows 7/8 Prof.</td>
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<tr>
<td>Tower Server</td>
<td>1..12</td>
<td>1..12</td>
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</tr>
</tbody>
</table>

**Note:**
1. The number of multiplexes which can be monitored simultaneously on a single machine depends on the chosen CPU, the actual content of the multiplexes, their bandwidth and the active monitoring tasks.
2. All decontis monitoring solutions are based on common server and interface hardware, i.e. no special hardware is necessary. So also already existing hardware or hardware from your preferred local server hardware supplier can be used, if appropriate.