

The Loudness Family

Perfect on Air with Perfect Production

Easy-to-use solutions for monitoring the loudness of stereo and 5.1 surround signals conforming to ITU BS.1771 in a wide range of applications and throughout the whole production process



- Loudness display according to ITU BS.1771 with versatile adjustable parameters
- Loudness bargraphs for each channel of digital Stereo and 5.1 surround signals
- Scale calibrated in loudness units from -21 dB LU to $+9$ dB LU
- Easy change between Loudness display and PPM via programmed presets
- Additional peak program meter bargraphs selectable

- “M” bargraph for the momentary summed loudness of all connected channels for a preset period
- “I” bargraph for integrated display of the mean momentary value for a dynamic time period
- “L” bargraph for the loudness value of a long-term reading up to more than 7 days
- Chart recorder documents the “M” and “I” readings for a dynamic time period
- Surround Sound Analyzer can be used with dB LU scale

A reliable and standardised method for evaluating program loudness is essential e. g. for preventing abrupt volume-level changes in radio and TV broadcasts. The evaluation of frequency, measuring of individual channels with short integration time period (production), signal summation with average integration time period (production and broadcast) and long-term measuring (broadcast and monitoring) are a few of the requirements for loudness monitoring.

Easy-to-use solutions

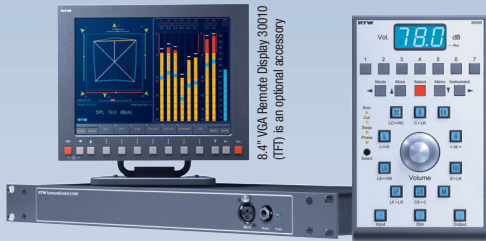
With the Loudness Family RTW offers easy-to-use solutions for the different requirements of monitoring the loudness of stereo and 5.1 surround signals throughout the production process. The SurroundControl 31900/31960, SurroundMonitor 11900, SurroundMonitor 10600/10660-VID and DigitalMonitor 10500 as members of the Loudness Family now include

each an integrated loudness display conforming to the ITU BS.1771 guideline as a standard feature as a complement or an alternative to conventional peakmeters.

The Loudness Display

The integrated loudness measurement display can be selected as an alternative to the usual peak program meter display, as well as presets enabling the user to switch between the two modes at any time. Selection of the loudness mode activates a scale for loudness display calibrated in dB LU (loudness units) from -21 dB LU to $+9$ dB LU with selectable parameters such as reference value, integration time settings for different loudness readings, and different threshold settings. The integrating loudness display, featuring a dynamic time window, is not affected by periods of silence because signals below a user-adjustable threshold are ignored.

RTW

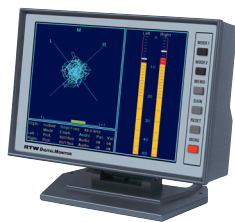


SurroundControl 31900/31960

The unique eight-channel systems that combine a Surround Monitoring Controller with the Surround Sound Analyzer display and with optional SDI interface or/and Dolby® E and Dolby® AC-3 decoder

Features:

- Comprehensive monitor control functions: Volume (SPL calibrated), cut, solo, phase reverse, left-right reverse, rear-to-front, center-to-front, mono
- Supports 2-ch stereo, multi-channel and surround up to 7.1
- Multi standard Peak Program Meters
- 2-ch Downmix matrix with PPM and vectorscope
- ITU BS.1771 Loudness Meter for each channel of Stereo and 5.1 Surround signals (dB LU scale)
- Additional bargraphs for display of momentary, integrated and long-term (more than 7 days) Loudness values
- Selectable PPM bargraphs for the Loudness display
- Chart recorder documents the momentary and integrated readings for a dynamic time period
- 31900: 19" rack-mount unit with Remote Control and VGA output for the use of external VGA displays
- 31960: half-19" plug-in module with integrated 6.5" TFT VGA display and remote control panel for standard 19" rack mount cases for waveform monitors



DigitalMonitor 10500

2-Channel display unit designed for Digital Recording, Postproduction and Mastering

Features:

- Multi standard Peak Meters
- Stereo vectorscope and AES/EBU status monitor
- ITU BS.1771 Loudness Meter for each channel of the Stereo signals (dB LU scale)
- Additional bargraphs for display of momentary and integrated Loudness values



SurroundMonitor 11900

Surround sound display unit for advanced metering applications with optional SDI interface or/and Dolby® E and Dolby® AC-3 decoder

Features:

- Supports 2-ch stereo, multi-channel and surround formats up to 7.1
- Multi standard Peak Program Meters
- Surround Sound Analyzer
- 2-ch Downmix matrix with PPM and vectorscope
- ITU BS.1771 Loudness Meter for each channel of Stereo and 5.1 Surround signals (dB LU scale)
- Additional PPM bargraphs for the Loudness display selectable
- Additional bargraphs for display of momentary, integrated and long-term (more than 7 days) Loudness values
- Chart recorder documents the momentary and integrated readings for a dynamic time period



SurroundMonitor 10600/10660-VID

6-Channel display unit designed for Surround Sound Recording, Postproduction and Mastering

Features:

- Supports 2-ch stereo, multi-channel and surround formats up to 5.1
- Multi standard Peak Program Meters
- Surround Sound Analyzer
- 10-fold correlator display
- Dialnorm measurement
- 31-band audio spectrum analyser (RTA)
- AES/EBU status monitor and numerical level display
- ITU BS.1771 Loudness Meter for each channel of Stereo and 5.1 Surround signals (dB LU scale)
- Additional bargraphs for display of momentary and integrated Loudness values

Technical changes without prior notice! 04/2008