

# Sound Terminal™ for flat-panel TVs

STA369BWS combines a F3X power stage with  
digital audio processing



## STA369BWS: A single-chip solution designed for flat-panel TVs and digital-audio applications.

The STA369BWS brings together audio power and processing with the ultimate speaker compensation technology. This product is a step forward in ST's commitment to the digital-audio market and implements new sound enhancements, including a multiband dynamic range compressor (MDRC). Safety is ensured with an embedded turn-on short-circuit detection and a run/time automatic diagnostic circuitry (STSpeakersafe). The STA369BWS is a green power and eco-compatible device with 90% efficiency and assembled in a halogen-free package.

### Key features

- Wide supply voltage range: 4.5 to 21.5 V
- I<sup>2</sup>C with selectable device address
- 2-channel I<sup>2</sup>S input data interface
- FFX® 100 dB SNR and dynamic range
- Selectable output up to 100% modulation index
- 32 kHz to 192 kHz input sample rate
- Thermal overload and short-circuit protection
- Turn-on short-circuit protection
- 576x frequency sampling input mode support for video compatibility
- Digital gain/attenuation: +48 dB to -80 dB in 0.125 dB steps
- Soft volume update with programmable ratio
- Channel independent postscale
- Input channel mapping
- Advanced AM interference frequency switching and noise suppression modes
- DRC (dynamic range compression)
  - Standard DRC
  - Advanced DRC (EqDRC)
  - Dual-band DRC (B2DRC)
- Bass/treble tone control
- 8x 28-bit user-programmable biquads (EQ) per channel
- 3 memory banks prestore coefficients with automatic checksum computation
- Run-time automatic diagnostic circuitry for fail-proof operation
- 3 power output configurations
  - 2 channels of ternary PWM (stereo mode) 2x 20 W
  - 3 channels (left and right using binary and woofer using ternary): 2x 9 W + 1x 20 W
  - 2 channels of ternary PWM: 2x 20 W + stereo lineout ternary/PWM driver
- Additional headphone output

