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## Short Information

### **MSP 3430G**

#### **Multistandard Sound Processor** (68-Pin PLCC Package, 64-pin or 52-pin PSDIP Package)

The MSP 3430G is designed as a single-chip sound processor for applications in analog and digital TV sets and video recorders.

The MSP 3430 is intended for processing a multichannel television sound (MTS) signal conforming to the standard recommended by the Broadcast Television Systems Committee (BTSC) of the Electronics Industries Association (EIA) and adopted by the Federal Communications Commission (FCC).

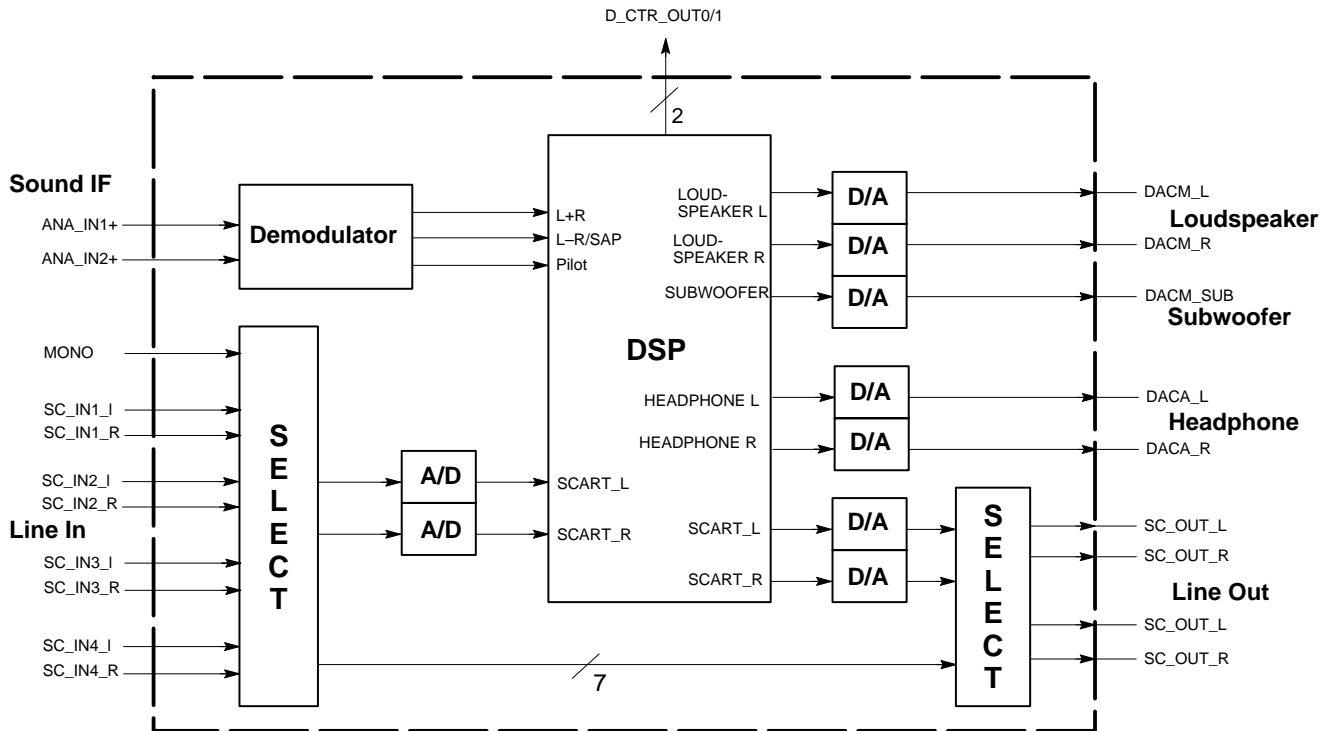
The chip is produced in submicron CMOS technology and will offer a wide range of interesting features combined with high-performance digital signal processing. The complete TV sound processing, starting at the Sound-IF domain, will be performed by one single IC. The IC's input signal consists of analog audio signals in baseband and at intercarrier position.

#### **Features:**

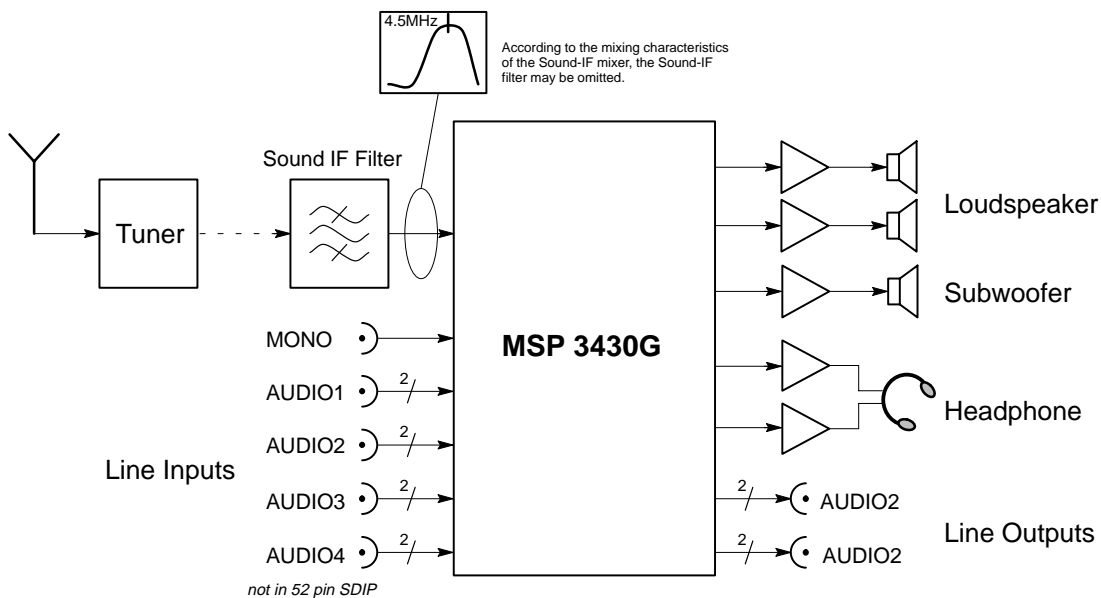
The MSP 3430G facilitates profitable multistandard capability, offering the following advantages:

- pin-compatible to the MSP Multistandard Sound Processor Family which covers all standards worldwide
- two selectable analog sound-IF inputs (4.5 MHz)
- demodulation and filtering entirely performed on-chip
- automatic gain control (AGC) for analog sound-IF input; input range: 0.14 to 3 Vpp
- demodulation of the BTSC multiplex signal
- demodulation of the SAP channel for the BTSC multiplex signal
- performance of the deemphasis and expansion (DBX) operation being part of the MTS standard
- two integrated A/D converters
- seven integrated D/A converters
- no external filter hardware required
- only one crystal clock necessary
- digitally performed stereo detection and dematrixing
- due to digital signal processing, no alignment procedures necessary
- SAP and stereo detection (read out via I<sup>2</sup>C), auto mute function
- digital baseband processing: volume, bass, treble, loudness, pseudo-stereo, basewidth enlargement, and automatic volume control (AVC)
- subwoofer output with on-chip programmable low pass and complementary high pass filters

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## Architecture of the MSP 3430G



## Typical MSP 3430G application

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