

## Analog-Input 24Bit, 48kHz Stereo ADC

### ■ FEATURES

- 24Bit Delta-Sigma Stereo ADC
- Differential Voltage Input:  $\pm VDDA/3.3V_{rms}$
- Audio Performance
  - THD+N: -88dB (Typical)
  - SNR: 89dB (PGA=30dB); 106dB (PGA=0dB)
- Flexible PCM Audio Interface
  - Master- or Slave-Mode
  - Data Formats: 24Bit, 8-48kHz fs
  - TDM up to 16 channels
- Automatic Level Control (ALC) and noise gate
- Digital mic (PDM) available
- QFN3×3-20L Package

### ■ APPLICATIONS

- Mic Array
- Digital TV
- Audio Speaker
- Audio Interface
- CD Recorder
- Multitrack Receiver
- Electric Musical Instrument

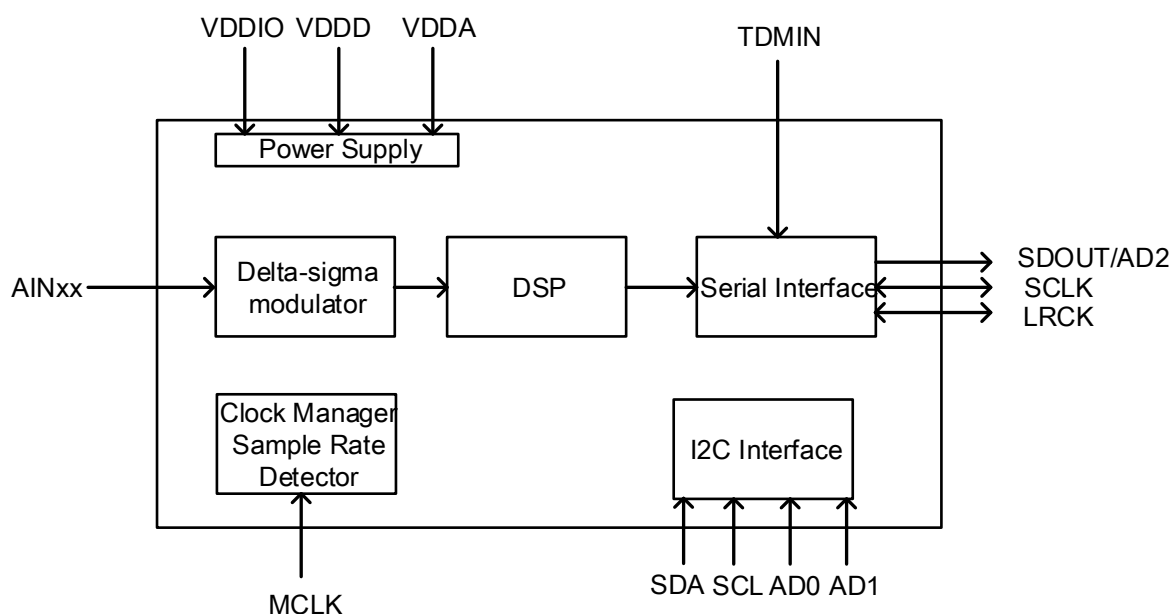
### ■ DESCRIPTION

The HT5943 device is a high-performance, low-cost, single-chip, stereo analog-to-digital converter with differential analog voltage input. Single end-ed analog input and PDM input is also supported.

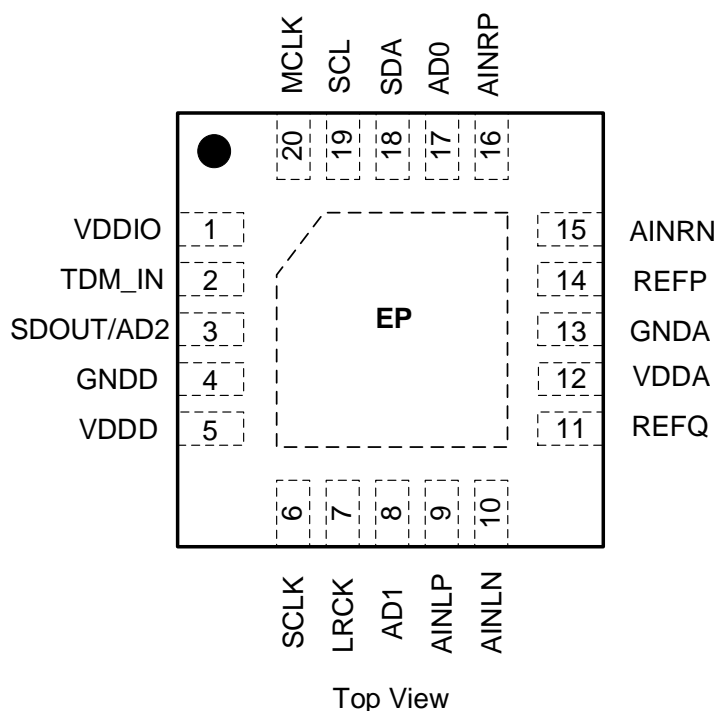
For various applications, the HT5943 device supports master and slave mode, and a variety of formats in serial audio interface, such as I<sup>2</sup>S, left justified, DSP/PCM and TDM.

The device is available in QFN3×3-20L package.

### ■ BLOCK DIAGRAM



## ■ TERMINAL CONFIGURATION



## ■ TERMINAL FUNCTION

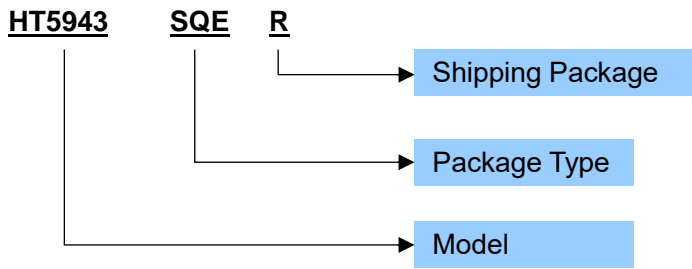
Terminal No.	NAME	I/O <sup>1</sup>	Description
1	VDDIO	P-	Power supply for digital input and output
2	TDM_IN	I	TDM data in
3	SDOUT/AD2	O/I	Serial data output/ device address selection AD2
4	GNDD	G	Digital GND
5	VDDD	P	Digital power supply
6	SCLK	I/O	Serial data bit-clock input or output
7	LRCK	I/O	Serial data left/right channel frame clock input or output
8	AD1	I	Device address selection AD1
9	AINLP	I	Analog positive polarity input for left channel
10	AINLN	I	Analog negative polarity input for left channel
11	REFQ	O	Reference-voltage decoupling
12	VDDA	P	Analog power supply
13	GNDA	G	Analog GND
14	REFP	O	Reference-voltage decoupling
15	AINRN	I	Analog negative polarity input for right channel
16	AINRP	I	Analog positive polarity input for right channel
17	AD0	I	Device address selection AD0
18	SDA	I/O	I <sup>2</sup> C data
19	SCL	I	I <sup>2</sup> C clock
20	MCLK	I	Master clock

<sup>1</sup> I: input O: output G: GND P: Power

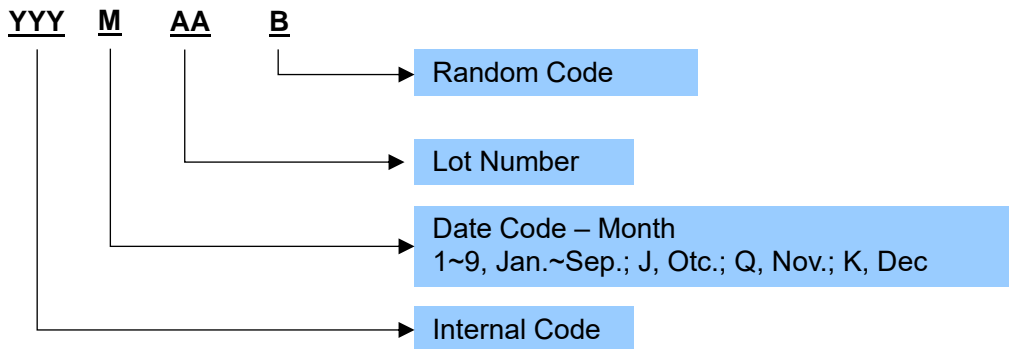
**ORDERING INFORMATION**

Part Number	Package Type	Marking	Operating Temperature Range	Shipping Package / MOQ
HT5943SQER	QFN3×3-20L (SQE)	HT5943 YYYYMAAB <sup>1</sup>	-40℃~85℃	Tape and Reel (R) / 5000pcs

**Part Number**



**Production Tracking Code**



<sup>1</sup>YYYYMAAB is production tracking code

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