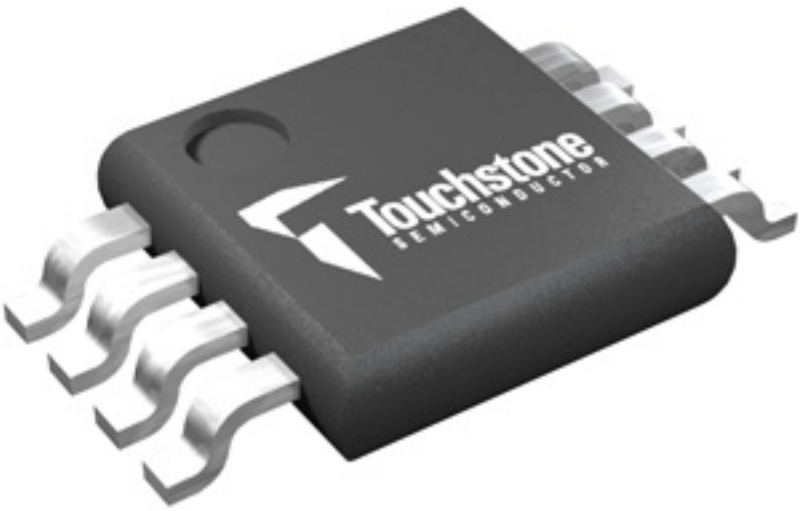
Analog-to-digital converter offers four user-programmable operating modes



Touchstone Semiconductor [1] announced the immediate availability of the TS7001, its newest 12-bit 187.5-ksps analog-to-digital converter (ADC) that can be used as a 1.5x faster/50% lower INL drop-in upgrade to the Analog Devices AD7887A. The TS7001 is a 50% smaller footprint and is also 1.5x faster versus the high-grade AD7887B in an SOIC-8.

Priced at $1.15 in 1,000 piece quantities, the new Touchstone TS7001 is $3 less expensive than the Analog Devices' AD7887B and $2 less expensive than its AD7887A. In addition to all other Touchstone Semiconductor ICs, the TS7001 is in stock and ready to ship from Digi-Key, Touchstone's authorized distributor.

Packaged in a MSOP-8, the TS7001 combines a 10-MHz track-and-hold (T/H), a high-speed 3-wire serial digital interface and an internal ±0.5%-initial accuracy +2.5V reference. Operating from +2.7V to +3.6V supplies, it consumes approximately 3mW when converting at 187.5ksps.

The new TS7001's features include:

· A $1.15 price at 1k-piece quantities: $3 less than the AD7887B and $2 less than AD7887A.

· 3-mW power consumption at 187.5ksps while operating from a single +2.7V to

+3.6V.

· One or two analog inputs each with an input range from 0V to VREF or 0V to VDD.

· Four user-programmable, low-power operating modes including auto standby and auto power down.

· ±1LSB INL performance

· Shutdown-mode supply current: 1µA (max).

· -40°C to +85°C operating temperature range.

· An integrated 2.5-V, ±0.5%, 30ppm/°C reference

The TS7001 is an ideal choice for an easy-to-use, stand-alone 12-bit ADC in low-power, industrial, process control and data-acquisition applications. Some portable and fixed-form-factor applications for the TS7001 include: optical sensors, touch panels, personal digital assistants, programmable logic controllers and medical instrumentation.

To facilitate easily the dynamic performance evaluation of the TS7001 SAR ADC or any of Touchstone Semi's other SAR ADCs, the Company makes available a plug-and-play FFT data acquisition/capture kit – the TSDA-VB kit - available from Digi-Key (Please reference TSDA-VB-Kit-ND [2]) at $175 each. The kit's straight-forward, easy-to-use GUI makes data capture to the TS7001DB or any other Touchstone Semi data converter product demo board quick-and-easy.

For more information on the TS7001 or any of Touchstone Semi's other ADCs or to download product briefs and data sheets, visit: http://touchstonesemi.com/products/analog-to-digital-converters [3]. Touchstone also offers free ADC samples and demo boards upon request by visiting: http://touchstonesemi.com/products/analog-to-digital-converters [3].

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http://www.ecnmag.com/product-releases/2013/02/analog-digital-converter-offers-four-user-programmable-operating-modes?qt-recent_content=0&qt-most_popular=0

Links:
[1] http://www.touchstonesemi.com
[2] http://www.digikey.com/product-detail/en/TSDA-VB%20KIT/TSDA-VB%20KIT-ND/3678492
[3] http://touchstonesemi.com/products/analog-to-digital-converters