

World's First True Industrial Power Meter System-on-Chip

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[TDK Semiconductor Corp.](#), a leader in the design and manufacture of mixed-signal semiconductors for world markets, today unveiled the world's first true [system-on-chip](#) for industrial poly-phase power meters. The new TDK 71M6513H integrates a 21 bit delta-sigma-delta converter, 32-bit compute engine, MCU, RTC, LCD driver, and ultra-precision voltage reference and provides better than 0.1% accuracy with only a few low cost external components.

With more than sixteen years of industry experience and four previous generations of custom metering ICs, TDK's engineers have now developed the optimal architecture for the rapidly evolving solid-state

metering market. Utilizing TDK's patent pending Single Converter Technology™ and digital temperature compensation, the 71M6513H achieves 10 PPM/°C accuracy only previously possible with multiple chips and costly external components," according to Kourosch Boutorabi, product line manager for metering products.

The 71M6513H can perform many standard and custom functions including active energy, apparent energy, voltage rms, current rms as well as waveform samples data for optional external processing. It consumes less than 30 mW in mission and 13 microwatts in battery modes, and it includes 64KB of MCU program/data storage, 7KB RAM, RTC, 5V LCD boost, 2+ UARTs, and an I²C interface.

Availability

Pricing for the new 71M6513H power meter IC starts at \$4.95 in 10,000 unit quantities. The device can be produced in FLASH and ROM versions and is now available for sampling in a 100-pin epLQFP package.

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