



## 6541

The 71M6541D/F are Teridian's 4th-generation single-phase metering SOCs with a 5 MHz 8051-compatible MPU core, low-power RTC, Flash memory and LCD driver. Teridian's patented Single-Converter Technology® with a 22-bit delta-sigma ADC, three or four analog inputs, digital temperature compensation, precision voltage reference and a 32-bit computation engine (CE) support a wide range of metering applications with very few external components. The 71M6541D/F support optional interfaces to the Teridian 71M6XXX series of Isolated Sensors, which offer BOM cost reduction, immunity to magnetic tamper and enhanced reliability. Other features include an SPI interface, advanced power management, ultra-low power operation in active and battery modes, 3/5 KB shared RAM and 32/64 KB of Flash memory which may be programmed in the field with code and/or data during meter operation. High processing and sampling rates combined with differential inputs offer a powerful metering platform for residential meters with up to class 0.2 accuracy.

### NDA REQUIRED

#### Features

< 0.5% Wh accuracy over industrial temperature and 2000:1 current range

Two current sensor inputs with differential mode selectable

SPI Interface w/flash program capability

32KB (6541D) or 64KB (6541F) FLASH with security

3KB (6541D) or 5KB (6541F) MPU XRAM

Up to 51 multi-function digital I/O pins

LCD driver (up to 210 pixels)

Low Power Consumption

64-pin LQFP package

