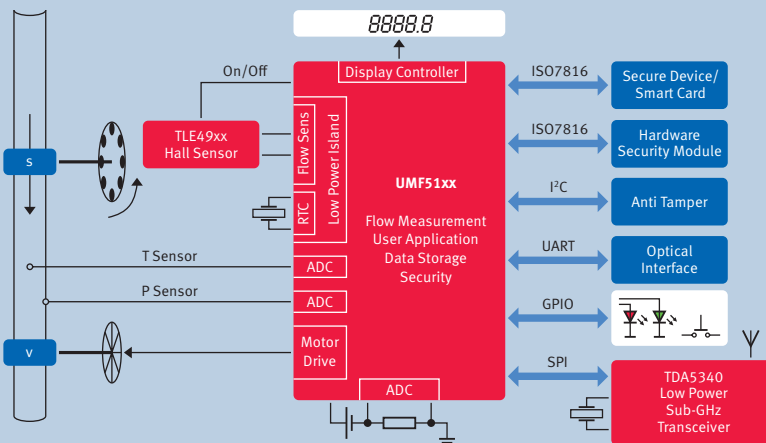


Complete Solution for Flow Measurement

Sense, measure and securely communicate with the highest efficiency. Full system solution, including software.

Low energy consumption, wide RF coverage and flexible adaptation to customers' requirements combined with the highest quality and reliability. Impossible? Not anymore with Infineon's Smart Meter products. Our devices are designed specifically for the metering market needs; they are based on automotive quality processes and blocks to address the increasing demand for quality and long term reliability. To allow fast and easy integration, Infineon offers a full system solution based on its ICs, including metrology reference design and software.

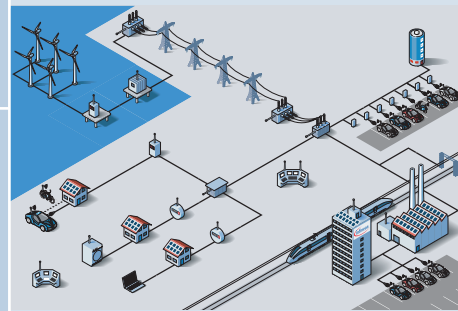


Thanks to its very low power consumption and fast wake-up time, the TLE49xx Hall Switches family is the ideal choice for sensing in power sensitive applications like gas meters and water/heat meters. With anti-tampering solutions and current consumption 65% less than optical systems, the TLE49xx family is a reliable, power saving replacement of reed switches and optical switches. The outstanding sensitivity of the TLE49xx family allows the use of small and cost effective magnets. With a technology proven in the harshest automotive environments, our Hall sensors deliver the highest performance in every condition, up to 150°C.

Infineon's metrology controllers combine first class features, such as dedicated flow metrology peripherals, advanced power management, embedded security and high computational power. With the choice of two Flash sizes of 128KB and 256KB, both the metrology task and the application and the protocol stack can run on the same core. Based on our leading position in the Security ICs market, Infineon proactively addresses the smart grid request for security with an advanced cryptography engine embedded in the UMF51xx family.

The SmartLEWIS™ transceiver TDA5340 and the transmitter TDA5150 are state-of-the-art sub-GHz radios. These low power devices are based on RF-CMOS technology. They combine outstanding RF performance with the flexibility of a digital approach. All the Infineon SmartLEWIS™ devices can be easily interfaced to the UMF51xx family through the embedded SPI port. The very low stand-by currents and the high efficiency power amplifiers make the SmartLEWIS™ radios ideal for any smart meter design.

Smart Meter Product Line



Infineon's Products Enable Smart Grids

A Smart Grid is an upgrade of our existing grids towards a stable, clean, and secure future. It combines six key concepts in an intelligent way.

These 6 concepts are:

- 1 Renewable energies** to produce electricity without CO₂ emissions
- 2 Advanced transmission** to transport electricity to where it is needed with lowest losses
- 3 EV charging and energy storage** for clean traffic and storage of excessive energy
- 4 Grid and smart meter security** to guarantee stable and secure energy supply
- 5 Smart metering** to balance electricity consumption and available supply
- 6 Energy-efficient consumption** to maximize efficiency and reduce carbon footprint

Complete Solution for Flow Measurement

Sense, measure and securely communicate with the highest efficiency. Full system solution, including software.

TDA5150 and TDA5340 SmartLEWIS™ Radios

- Multi-band, multi-channel sub-GHz Transmitter and Transceiver
- Sigma-delta fractional-N PLL modulator
- Datarate up to 112kbit/s
- High efficiency PA: 17mA for 10dBm at 868MHz
- Low stand-by current
- High sensitivity of -118dBm in FSK
- Ultra-fast wake-up and synchronization within only 4bits
- Lowest bill-of-material with internal IF filter and antenna switch

UMF5110 and UMF5120 Metrology Controller

- Low power core based on ARM CortexM0, up to 64MHz
- Flow metrology counter active in deep sleep mode
- Motor driver for valve control
- Embedded flash qualified for 1.500.000+ write cycles
- LCD driver: up to 192 pixels
- Temperature compensated, very accurate RTC
- Security: supporting symmetric and PKI cryptography
- Infineon SecureKey embedded

TLE49xx Hall Switches

- 35% current consumption compared to optical switches based system
- Anti-tampering solutions available
- High sensitivity and stability of magnetic switching points
- Low jitter
- Available in both leaded and SMD package
- High resistance to mechanical stress by active error compensation
- Superior temperature stability
- Sensor module can deliver same outputs regardless of temperature

Hall Sensors

Product	Type	Temperature	Package
TLE4966-2	Double Hall Latch	-40°C to +150°C	PG-TSOP-6
TLI49X6	Latch	-40°C to +125°C	PG-SC59
TLE4913	Low power bipolar Switch	-40°C to +85°C	PG-SC59
TLE4916	Low power Latch	-40°C to +150°C	PG-SC59
TLE4917	Low power bipolar Switch	-40°C to +85°C	PG-TSOP-6

Metrology MCU

Product	Flash	RAM	Temperature	Package
UMF5110	128KB	16KB	-40°C to +85°C	TQFP-100
UMF5120	256KB	16KB	-40°C to +85°C	TQFP-100

SmartLEWIS™ Radios

Product	Type	Power	Temperature	Package
TDA5150	Tx	+10dBm	-40°C to +85°C	PG-TSSOP-10
TDA5340	TRx	+14dBm	-40°C to +110°C	PG-TSSOP-28



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