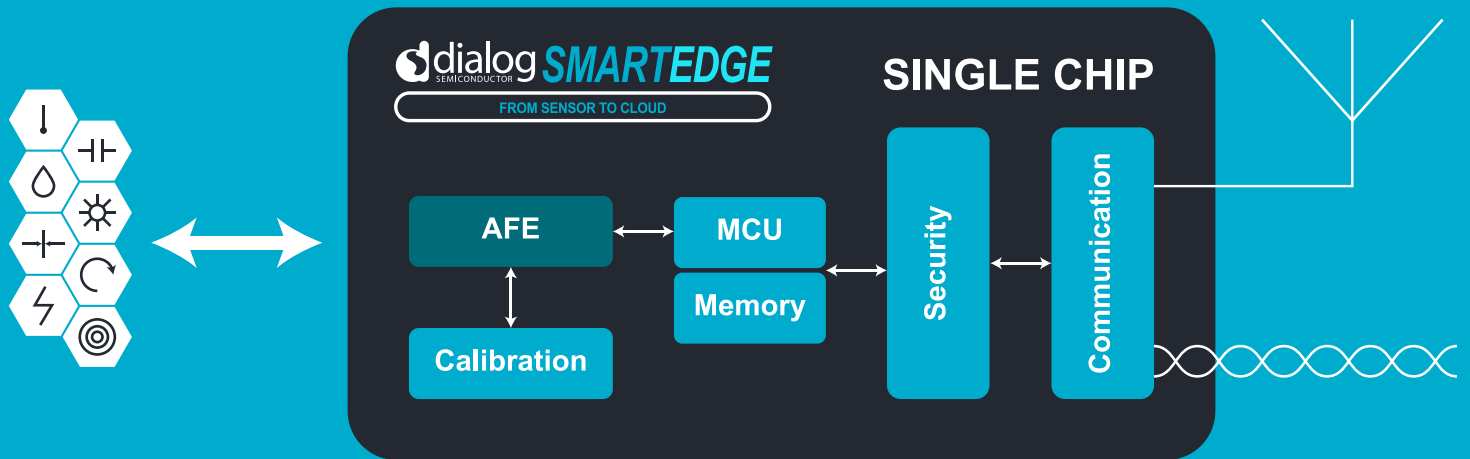# SmartEdge™ Platform

In real-time control systems processing needs to be done at the source to optimise system responsiveness, communication overhead and security. This is processing at the edge, otherwise referred to as edge computing. Considering the non-homogenous nature of the applications in IIoT, no optimized fit-for-all solution exists. Current solutions are big, power hungry and not cost effective. Only customized integration delivers optimized performance and cost. Our SmartEdge™ Platform delivers on both counts. Dialog SmartEdge platform delivers complete integration into one chip of all the key functions required for edge computing, delivering:

• Up to 75% less PCB area and Power

• 80% less BOM cost

Key Integrated Functions

Sensor Analog Front End — connecting physical world stimuli like Temperature, Pressure, Humidity and Flow via sensors and translating them into digital data that can be used to drive better decision making-all on a single chip.

Calibration — sensors are nonv-ideal. Calibration is required to iron out nonlinearities. Calibration and compensation algorithms are integrated-all on a single chip.

Control — integrating the functionality on-chip to control the physical world (e.g. actuators) in response to real time intelligent processing of the digitized sensor signals from the Analog Front End - all on a single chip.

Communication/Security — to complete the connection from sensor to hub to cloud, integrating on board the communications protocol that best suits your requirements, whether that be wired or wireless. In the transmission of secure data, Dialog implements a Security First hardware based strategy where security is integrated in at the start & is forefront in the specification stage-all on a single chip.

Embedded Software — whether annealing new hardware into existing systems or creating totally new code, Dialog has a strong legacy of supporting embedded software development, covering development, debug and middleware tools.