



# Highly Configurable 8 Channel $\pm 25$ V Universal Input Analog Front-End with Excitation Sources

## NAFEx3388

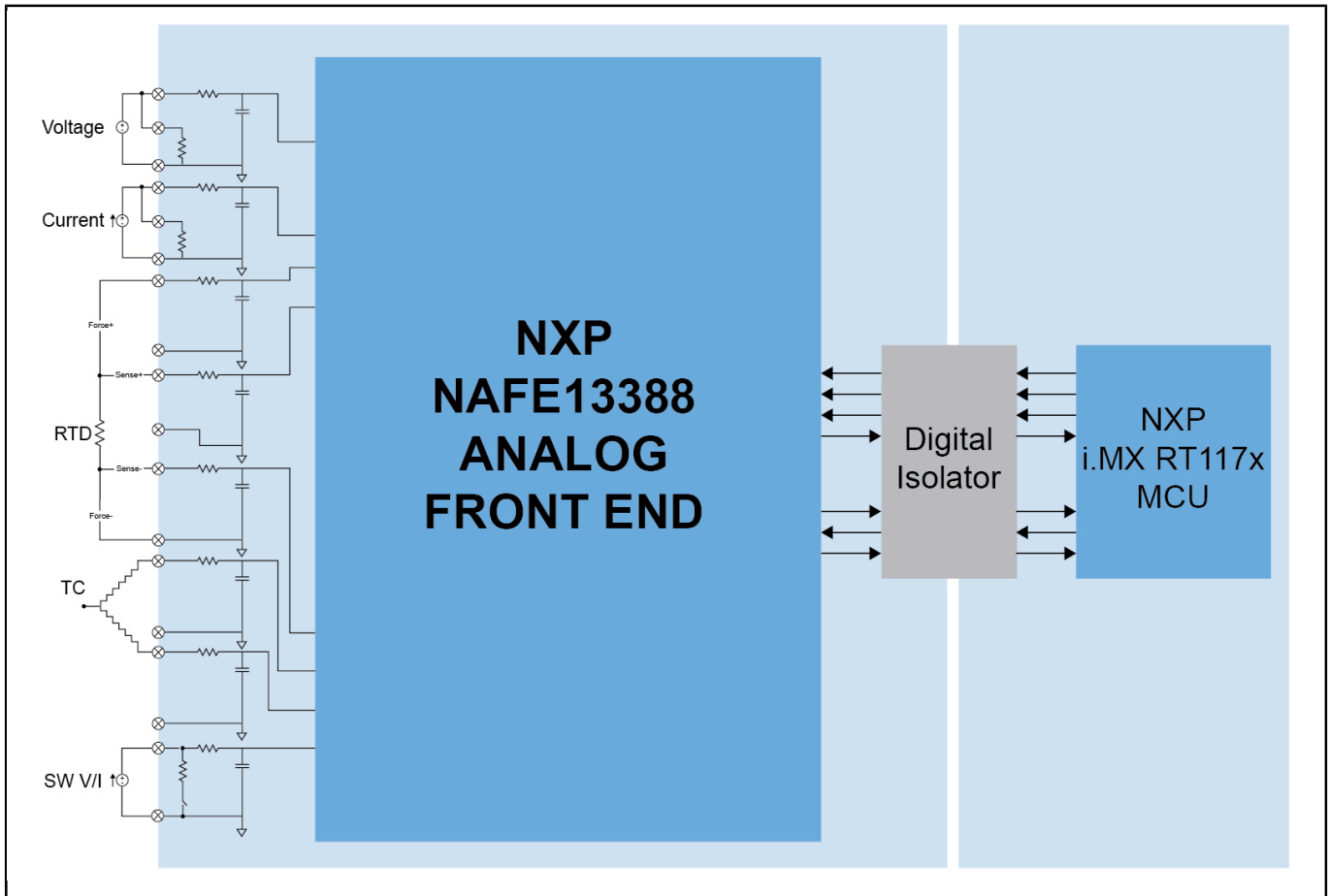
Last Updated: Jan 11, 2024

The NAFE13388 / NAFE73388 / NAFE13188 is a highly configurable industrial-grade multichannel universal input analog front-end (AFE) that meets high-precision measurement requirements. The device integrates low-leakage, high-voltage (HV) fast multiplexers, low-offset and low drift programmable gain amplifier (PGA) and buffers, high data rate 24-bit delta-sigma analog-to-digital converter (ADC), precise voltage and current excitation source, and low-drift voltage reference. All of the HV analog pins are diode-protected internally for electromagnetic compatibility (EMC) and miswiring scenarios. The NAFE13388 / NAFE73388 / NAFE13188 are equipped with various diagnostic and supplies supervisory circuitry for condition monitoring and anomaly detection. Two precise calibration voltage sources are made available for ease of end-to-end system self-calibration and predictive maintenance.

The NAFE13388 / NAFE13188 are dedicated to low-power applications with factory and non-factory calibration option respectively. The NAFE73388 supports high-speed data rate up to 576 kSPS.

The NAFE13388, NAFE73388 and NAFE13188 are designed for programmable logic controllers (PLC), I/O modules, data loggers, instrumentation and high precision sensor and data acquisition systems.

## NAFE13388 / NAFE73388 / NAFE13188 Analog Front-End Block Diagram



View additional information for [Highly Configurable 8 Channel  \$\pm 25\$  V Universal Input Analog Front-End with Excitation Sources](#).

**Note:** The information on this document is subject to change without notice.

[www.nxp.com](http://www.nxp.com)

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.