

Galileo Wired Condition Monitoring Via 10BASE-T1L

The Galileo condition monitoring platform showcases a new vibration monitoring solution from Analog Devices with 10BASE-T1L single pair Ethernet connectivity that enables seamless access to asset health insights, while also providing power to the smart sensors over two wires for both power and data up to 1 km. This low power, small form factor smart sensor solution can be deployed in harsh industrial environments including Zone 0 intrinsically safe applications.

Key Advantages of the Platform



Data and power over two wires



Reliable data transmission up to 1 km



Wide bandwidth signal measurement down to DC



IP addressable sensor design



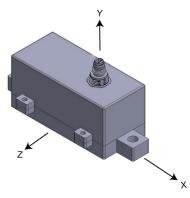
Seamless access to the data

Galileo Platform

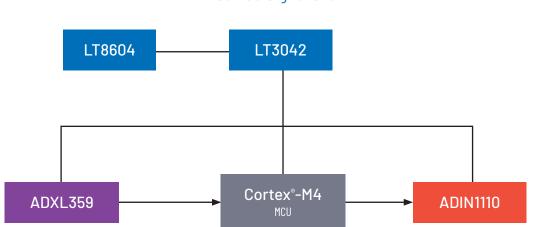
The Galileo platform from Analog Devices enables wired condition monitoring of industrial assets over a 10BASE-T1L link. The platform features the ADXL359 MEMS vibration sensor and the ADIN1110 10BASE-T1L MAC-PHY and is housed in an enclosure mechanically optimized to pick up even the smallest vibrations.

ADXL359 provides a low power, low noise multi-axis vibration sensing capability that can measure signals down to DC and ADIN1110 10BASE-T1L MAC-PHY, which provides Ethernet connectivity and power over twisted pair cable. This in turn removes the need for the processor to have an integrated MAC, providing more flexibility on the choice of processor for edge while enabling an IP addressable sensor.

The Galileo platform enables IP addressable sensor edge nodes, which provide seamless access to high quality vibrational technology at lower overall system costs.



The mechanical design of the Galileo platform.



Galileo Signal Chain

Featured Products

ADXL359	Low noise, low drift, low power, 3-axis MEMS accelerometer
ADIN1110	Robust, industrial, low power 10BASE-T1L Ethernet MAC-PHY
LT8604	High efficiency 42 V/120 mA synchronous buck
LT3042	20 V, 200 mA, ultralow noise, ultrahigh PSRR linear regulator

Circuits from the Lab[®] reference designs are built and tested by ADI engineers with comprehensive documentation and factory-tested evaluation hardware.

Circuits from the Lab[®] Reference Designs

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