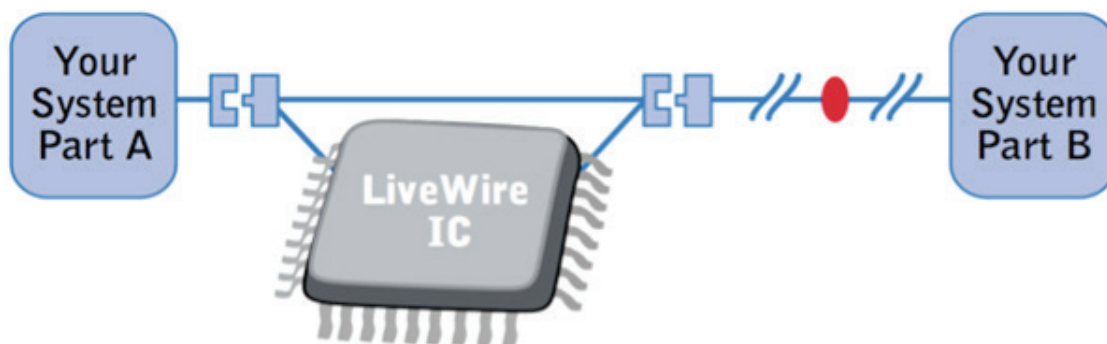
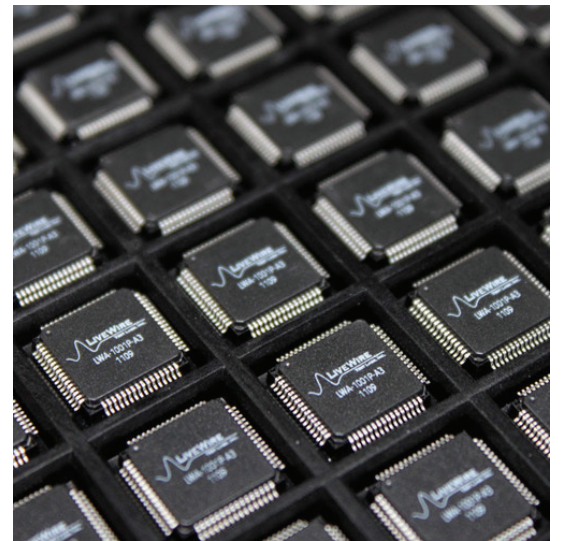


SSTDR-ASIC Technology

LiveWire Innovation has developed a cutting edge technology that detects and locates intermittent fault conditions in high noise environments (e.g. live electrical power circuits, communication lines, sensors and safety systems, various types of concrete/steel structures) in real time.

The LiveWire ASIC integrates with your technology to reduce maintenance/troubleshooting/monitoring costs, increase system reliability, and extends the useful life of assets by providing accurate real time monitoring. LiveWire's unique core technology is Spread Spectrum Time Domain Reflectometry, or SSTDR. The technological foundation of cell phone communications, spread spectrum is used to transmit a small but nevertheless recognizable signal in a high noise environment. By combining spread spectrum with TDR technology, LiveWire has achieved a significant breakthrough in being able to monitor changes in wiring systems, in real time. Changes that occur for as brief a time period as one millisecond can be detected, characterized, and located (distance to fault) within an accuracy of +/- 2% over a distance of a few inches to hundreds of meters.

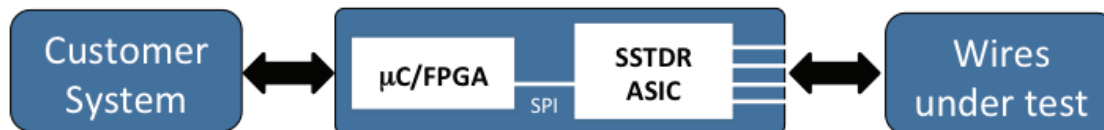


Features:

- Small form factor easily integrates into existing products.
- Reduces maintenance costs for existing assets by pinpointing the location of intermittent fault conditions during live operation.
- Increases the LTV of assets by keeping them in service longer and with fewer problems.
- Increases safety and reduces downtime.
- Works on systems of all types and sizes (power, communications, sensors, etc.)

Technical Specifications

ASIC Integration Pathway

**Features:**

- Spread Spectrum Time Domain Reflectometry (SSTDR)
- Continuous Monitoring 1 Channel:
~3000 scans/sec
- Multiplexed Monitoring 4 Channels
~500 - 2000 scans/sec per wire
- 1 Differential Receiver Channel
- SPI Interface – 24 MHz Nominal up to 48MHz max
- Digital Control Interface
- Arc Fault Capture Mode
- Test Frequencies: 1.5 MHz to 96MHz
Covers wide range of cable lengths
- LWA-1001P = 10mm x 10mm Leaded Package (QFP)

Operating Characteristics:

- 3.3 VDC +/-5% @ ~175mA Typical
- Ambient Operating Temperature of -40 Degrees C to +105 Degrees C
- 4kV Human Body Model (HBM) ESD protection levels
- Transmit voltage level 2mV to 500mV peak to peak
- 24MHzz Crystal/Oscillator
- 2KB SRAM Cache Holds 10 scans
- Internal Power On Reset

LiveWire Innovation

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