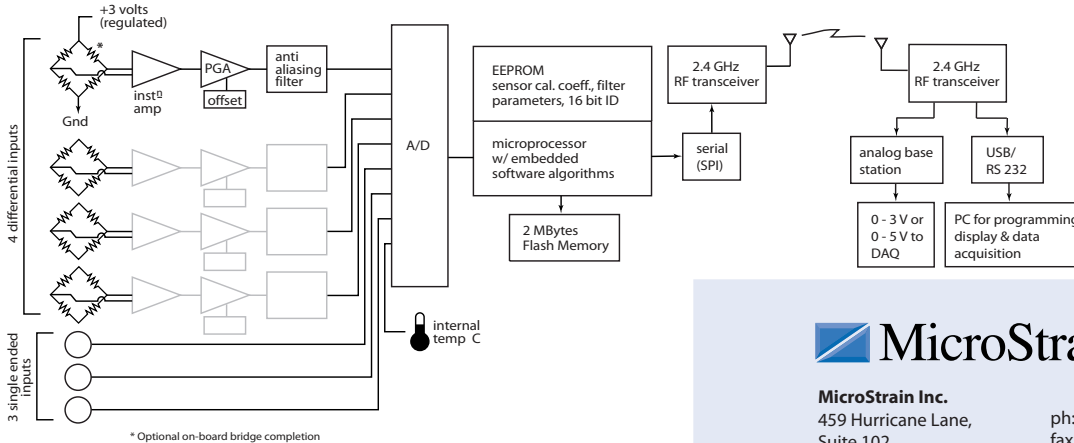




Specifications

Input channels	up to 8 input channels: 4 full differential, 350 Ω resistance or higher (with optional bridge completion), 3 single ended inputs (0-3 volts maximum), and internal temperature sensor
Temperature sensor	-40 °C to 70 °C range, typical accuracy ±2 °C (at 25 °C)
Anti-aliasing filter bandwidth:	-3 dB cutoff at 250 Hz (factory adjustable)
Measurement Accuracy	± 0.1% full scale typical
Resolution	1 bit: 0.024% 1 microstrain typical for 3 wire full bridge strain gauge (when used in accordance with MicroStrain® recommendations)
DC bridge excitation	+3 volts DC at 50 mA maximum (pulsed to sensors for sample rates of 100 Hz and below to conserve power)
Programmable gain	software programmable for differential input channels from 210 to 4844 (can be reduced with hardware resistor change)
Programmable offset	software programmable
Analog to digital (A/D) converter	successive approximation type, 12 bit resolution
Data storage capacity	2 megabytes (approximately 1,000,000 data points)
Data logging mode	log up to 1,000,000 data points (from 100 to 65,500 samples or continuous) at 32 Hz to 2048 Hz
Sensor event driven trigger	commence datalogging when threshold exceeded
Real-time streaming mode	transmit real time data from node to PC - rate depends on number of active channels: 1 channel - 4 KHz, 2 channels - 2 KHz, 3 channels - 1.33 KHz, 4 channels - 1 KHz, 5 channels - 800 Hz, 6 channels - 666 Hz, 7 channels - 570 Hz, 8 channels - 500 Hz
Low duty-cycle mode	supports multiple nodes on single RF channel, from 1 sample per hour to 250 Hz
Synchronization between nodes	datalogging ±4 μsec ±50 ppm, LDC mode time stamped at PC
Sample rate stability	± 25 ppm for sample rates > 1 Hz, ±10% for sample rates ≤ 1 Hz
Wireless shunt calibration	channels 1 to 4, internal shunt calibration resistor 499 KΩ
Radio frequency (RF) transceiver carrier	2.4 GHz direct sequence spread spectrum, license free worldwide (2.405 to 2.480 GHz) - 16 channels, radiated power 0 dBm (1 mW)
RF data packet standard	IEEE 802.15.4, open communication architecture
RF data downloading	8 minutes to download full memory
Range for bi-directional RF link	70 m line-of-sight, up to 300 m with optional high gain antenna
Internal Li-Ion battery	3.7 volt lithium ion rechargeable battery, 740 mAh capacity; customer may supply external power from 3.2 to 9 volts
Power consumption	V-Link® node only: real-time streaming - 25 mA, datalogging - 25 mA, sleeping - 0.1 mA External sensors: 350 Ω strain gauge - 8 mA, 1000 Ω strain gauge - 3 mA (to calculate total power consumption, add sensor consumption to above)
Operating temperature	-20 °C to +60 °C with standard internal battery and enclosure, extended temperature range optional with custom battery and enclosure, -40 °C to +85 °C for electronics only
Maximum acceleration limit	500 g standard (high g option available)
Dimensions	88 mm x 72 mm x 26 mm (enclosure without antenna), 76 mm x 65 mm x 12 mm (circuit board assembly only), For dimensional print go to www.microstrain.com
Weight	97 g (with enclosure), 15 g (circuit board assembly only)
Enclosure material	ABS plastic
Software	Node Commander® Windows XP/Vista compatible
Compatible base stations	USB, RS-232, Analog, WSDA®



* Optional on-board bridge completion



MicroStrain Inc.
459 Hurricane Lane,
Suite 102
Williston, VT 05495 USA
www.microstrain.com

ph: 800-449-3878
fax: 802-863-4093
sales@microstrain.com

Patents Pending