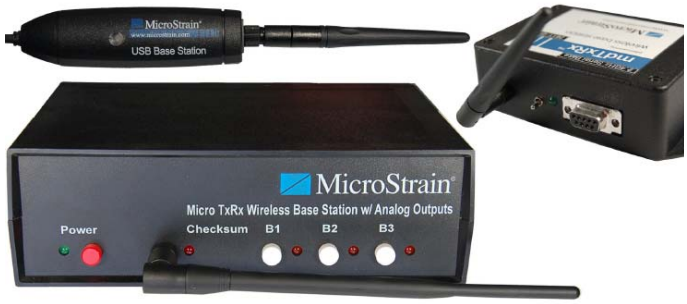
Agile-Link™

2.4 GHz Wireless Base Stations



Introduction

2.4 GHz Base Stations are designed to operate as an integral part of the Agile-Link™ high speed wireless sensor network, providing communication between the host PC, Single Board Computer or microcontroller and remote wireless nodes including V-Link®, SG-Link®, G-Link® and TC-Link®.

The USB Base Station provides a plug-and-play USB connection. It is light-weight, easily-mountable, has a small footprint and can communicate individually with any wireless node as well as issue network instructions to multiple wireless nodes.

The Analog Base Station provides a plug-and-play USB or RS-232 connection. It is a small footprint console, can be deployed as a stand-alone (without host PC) and can communicate individually with any wireless node as well as issue network instructions to multiple wireless nodes. It also can provide channelized data to analog data acquisition equipment in hybrid or legacy systems.

The Serial Base Station provides a plug-and-play RS-232 connection. It is light-weight, easily-mountable, has a small footprint and can communicate individually with any wireless node as well as issue network instructions to multiple wireless nodes.

Optional range extending antennas are available on request.

Features & Benefits

- 2.4 GHz direct sequence spread spectrum radio is license free worldwide
- IEEE 802.15.4 open communication architecture
- multiple base stations support simultaneous streaming from multiple nodes to PC
- support real-time streaming rates up to 4 KHz
- analog base station re-creates analog voltage for input into DAQ
- communication range up to 70m line-of-sight, up to 300m with optional high-gain antennas

Applications

- condition-based monitoring of machines
- health monitoring of civil structures and vehicles
- smart structures and materials
- experimental test and measurement
- robotics and machine automation
- vibration and acoustic noise testing
- sports performance and sports medicine analysis
- distributed security networks

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Specifications

USB Base Station	MD-TxRx-2400-BASE-USB
Host communication interface	USB 2.0
Cable	3 feet
Power	powered by host USB port
Radio frequency (RF) transceiver carrier	2.4 GHz direct sequence spread spectrum, license free worldwide (2.450 to 2.490 GHz) - 16 channels
RF data packet standard	IEEE 802.15.4, open communication architecture
Range for bi-directional RF link	70 m line-of-sight, up to 300 m with optional high gain antenna
Operating temperature	-20 to +60˚C with standard enclosure. -40 to +85˚C electronics only
Dimensions	102 mm x 27 mm x 24 mm without antenna, 200 mm x 27 mm x 24 mm with antenna. For dimensioned print go to www.microstrain.com
Weight	59 grams
Case	ABS plastic
Software	Agile-Link™ Windows XP compatible
Analog Base Station	MD-TxRx-2400-BASE-AU
Host communication interface	USB 2.0, RS232, 115.2 KBaud
Cable	6 foot cable with male/female USB connectors and 6 foot cable with male/female DB9 connectors
Power	powered by host USB port, external 6-9 volt VDC power source (6 VDC 500 mA adapter included) or 9 volt internal battery
Analog outputs	supports one wireless node with upto 8 channels or 8 wireless nodes with 1 channel. Provides 0 to 3 or 0 to 5 volt referenced output (user selectable) and checksum channel
Radio frequency (RF) transceiver carrier	2.4 GHz direct sequence spread spectrum, license free worldwide (2.450 to 2.490 GHz) - 16 channels
RF data packet standard	IEEE 802.15.4, open communication architecture
Range for bi-directional RF link	70 m line-of-sight, up to 300 m with optional high gain antenna
Operating temperature	-20 to +60˚C with standard enclosure. -40 to +85˚C electronics only
Dimensions	200 mm x 66 mm x 156 mm without antenna. For dimensioned print go to www.microstrain.com
Weight	878 grams
Case	ABS plastic
Software	Agile-Link™ Windows XP compatible
Serial Base Station	MD-TxRx-2400-BASE-232
Host communication interface	RS232, 115.2 KBaud
Cable	6 foot cable with male/female DB9 connectors
Power	Powered by external 6-9 volt VDC power source (6 VDC 500 mA adapter supplied) or 9 volt internal battery
Radio frequency (RF) transceiver carrier	2.4 GHz direct sequence spread spectrum, license free worldwide (2.450 to 2.490 GHz) - 16 channels
RF data packet standard	IEEE 802.15.4, open communication architecture
Range for bi-directional RF link	70 m line-of-sight, up to 300 m with optional high gain antenna
Operating temperature	-20 to +60˚C with standard enclosure. -40 to +85˚C electronics only
Dimensions	133 mm x 84mm x 36 mm without antenna. For dimensioned print go to www.microstrain.com
Weight	170 grams
Case	ABS plastic
Software	Agile-Link™ Windows XP compatible

MicroStrain®

MicroStrain Inc.
310 Hurricane Lane, Unit 4
Williston, VT 05495 USA
www.microstrain.com

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

Patents Pending

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