

WIRELESS DATA ACQUISITION EVALUATION KIT

Key Features

- Complete wireless evaluation kit
- Acquires data from LORD MicroStrain® wireless sensor nodes
- Supports LRXS 200 series nodes
- Kit includes:
 - + KAM chassis
 - + Ethernet controller
 - + Wireless data acquisition module
 - + Two LXRS® wireless sensor nodes

Applications

- Wireless data acquisition evaluation and deployment

Overview

The Wireless Data Acquisition evaluation kit is an all-in-one solution to get started with wireless sensor acquisition. Supplied in this kit is all that is needed to program a wireless sensor network, acquire data from the network and integrate it into an Acra KAM-500 data acquisition network or use as a stand-alone solution.

Included in the kit is an Acra KAM-500 chassis (KAM/CHS/03U), an Ethernet backplane controller (KAD/BCU/140), an evaluation wireless data acquisition module (KAM/WSI/104), and two wireless sensor nodes.

The KAD/BCU/140 supports IENA and iNET-X transmissions and PTP time synchronization. The included KAM/WSI/104 can be used in conjunction with the KAD/BCU/140 to acquire data from the wireless nodes for transmission in Ethernet packets to a recorder or a PCM transmitter.

The two off-the-shelf wireless sensor nodes from LORD MicroStrain use the LXRS protocol to ensure coherent data is acquired. The V-Link-200 is a versatile seven-channel analog, wireless sensor node with high sample rates and data logging capability. The G-Link-200-8G is a low-cost integrated accelerometer node with $\pm 8g$ measurement range and various sampling options.

All the nodes are configured using the supplied SensorConnect software. This Windows application is designed specifically for LORD LXRS wireless products and configures all wireless nodes and starts acquisition from the remote nodes. The Acra KAM-500 data acquisition network, including the KAD/BCU/140 and KAM/WSI/104 are configured using the supplied DAS Studio 3 software.

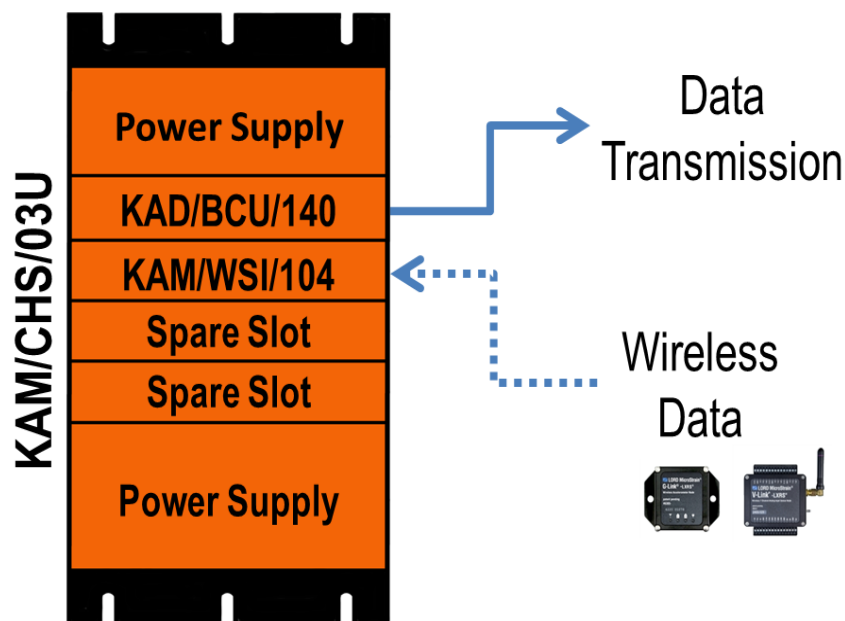


Figure 1: Overview of the contents of the Wireless Data Acquisition evaluation kit

Ordering information

PART NUMBER	DESCRIPTION
DEV/KIT/002	Wireless Data Acquisition evaluation kit includes the following items: KAD/BCU/140 module (includes one CON/KAD/002/CP and one NET/CON/020 cable) KAM/CHS/03U chassis (includes one CON/PSU/007/FL/100 cable) KAM/WSI/104 module (includes one ACC/ANT/011 and one ACC/CON/051 cable) and two wireless sensor nodes (V-Link-200 and G-Link-200-8G)
	USB drive with DAS Studio 3, SensorConnect, and <i>TEC/NOT/084 - Using the KAM/WSI/104</i> .

The above part numbers will be added to the Confirmation of Order unless an alternative option is specified (see the *Cables* data sheet).

Revision history

REVISION	DIFFERENCES	STATUS
Wireless Data Acquisition evaluation kit	First release	Recommended for new programs

Supporting software

SOFTWARE	DETAILS
DAS Studio 3	User interface for setup and management of data acquisition, network switches, recorders and ground stations in an integrated environment
SensorConnect	SensorConnect is PC software specifically designed for configuring LORD wireless products

Related products

MODULE	DETAILS
KAD/BCU/140	Ethernet backplane controller - IENA/iNET-X compatible, PTPv1 client or Grandmaster, dual Ethernet output
KAM/WSI/104	Wireless interface module to LORD RF module for data acquisition from LXRS wireless nodes
KAM/CHS/03U	Acra KAM-500 chassis – 3 user slots
ACC/ANT/011	2.4GHz antenna with male RP-SMA connector
ACC/CON/051	USB to 19 way cable for the KAM/WSI/104
V-Link-200	LORD LXRS seven channel analog wireless sensor node
G-Link-200-8G	LORD LXRS low-cost integrated accelerometer node with $\pm 8g$ measurement range

Related documentation

DOCUMENT	DETAILS
DOC/DBK/001	Acra KAM-500 Databook
DOC/GBK/002	Environmental Qualification Handbook
DOC/MAN/030	DAS Studio 3 User Manual
TEC/NOT/016	Power dissipation
TEC/NOT/049	Power estimation
TEC/NOT/084	Using the KAM/WSI/104
XidML wall chart	Overview of key concepts and components in XidML