Model LF6000

Highly Networked Data Acquisition System

Features & Benefits

Versatile Network Connectivity with Time/Event Synchronization

NTP/TSN Time Synchronization

Internal Web Server

Remote Viewing and Control

Comprehensive Analysis Tools

4 Analog Input Channels

1 External Clock Input Trigger

1 External Clock Output Synchronization

1000Base-T Ethernet

USB 3.0

1 to 22 TB Hard Disk Storage

Data Acquisition Subsystem

Universal AC Power Input

Compact and Lightweight

Robust Construction

Interface Cables Included

Powered By:

Veritium®

LABFUSION™

The Model LF6000 represents the first offering in Veritium's new LabFusion™ family of powerful highly-networked products. The system may work in a standalone mode or further networked with precision timing and event synchronization with other members of the LabFusion™ family. Multi-domain real-time signal analysis allows users to visualize signals in the time, frequency, and phasor domains over networks. A signal may be displayed in a single domain or the user may select from several split-screen modes to enable comparative analysis between domains.

The instrument's virtual control and viewing panels are clear, logical, and non-intimidating to the first time user. The platform is based on the Linux Operating System and highly configurable by the user. This minimizes the amount of time required to master system operation and provides maximum software stability. Several precision timing and time synchronization modes include user selectable worldwide Network Time Protocol (NTP) servers for general timing, Time Sensitive Network (TSN) protocol for precision time synchronization, along with external timing synchronization via a clock input trigger and clock output.

The device features a superset of the analysis capabilities built into Veritium's Model 8000 Advanced Signal Analyzer. A four channel data acquisition and internal storage sub-system is also included. In data acquisition mode, all four signals are available for remote viewing and/or stored onto an internal hard disk drive for post-processing or archival use. Stored data may be easily retrieved via the system's integral USB or Ethernet connections.

The instrument is robust in construction and meets or exceeds all applicable US and EU electrical safety and environmental standards.

FEATURES	DESCRIPTION
Analog Input	**4 isolated analog input channels with user defined input voltage range and sampling rate** Client-side input configuration for parametric data, scaling, offsets, axis titles, axis ranges
External Clock Input/Output	**1 isolated external clock trigger input, 1 isolated external clock timing output** Custom protocols may be added at a nominal charge to support new and legacy equipment. Client-side configuration may be used to format incoming data
USB 2.0 Interface Port	**1 non-isolated USB 2.0 port** Custom protocols may be added at a nominal charge to support new and legacy equipment. Client-side configuration may be used to format incoming data
CONNECTIVITY	**DESCRIPTION**
Analog Inputs	4 isolated channels with BNC type connectors
Input Impedance	10 Meg Ohm 20 pF
Polarity	Single-Ended, Unipolar, 0 to 5 VDC Maximum Input Voltage, ±30 VDC
Sampling Rate	User Specified 100 to 100,000 Samples Per Second. All channels sampled synchronously
Sampling Resolution	16 bit
Clock I/O	2 isolated timing synchronization channels with BNC type connectors
Ethernet	1 non-isolated RJ45 1000BaseT IEEE 802.3 Ethernet connector
USB	1 non-isolated USB 2.0 compliant Type B connector
Bluetooth® (optional)	**Bluetooth® 5.4 Standard** Backward compatibility with older Bluetooth® devices and data transfer rates Custom protocols may be added at a nominal charge to support new and legacy equipment. Client-side configuration may be used to format incoming data
Wireless (optional)	**5G Cellular Communication Standard with 4G, 3G Fall Back** **Carriers:** Global (AT&T (FirstNet), Verizon, T-Mobile, Dish, Telstra, NTT Docomo, Softbank, KDDI, LGU+) **Bands:** Sub-6 GHz: n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n39, n40, n41, n46, n48, n66, n70, n71, n75, n76, n77, n78, n79
VeritiumLive™ (optional)	**VeritiumLive™ Cloud Computing System Compatibility** System may be used with the VeritiumLive™ Web Network with service subscription
SYSTEM	**DESCRIPTION**
External Connections	4 BNC Analog Inputs 1 Type B USB 2.0 2 BNC External Timing Input/Output Channels 1 RJ45 1000BaseT 802.3ab-1999 (CL40) Ethernet 1 IEC-320 Compatible Universal AC Input
Display Type	Internal web server provides remote data visualization and control via external computer
Serial Connectivity	1 1000BaseT Ethernet 1 USB 2.0 Bluetooth® 5.4 (Optional) 5G Cellular Wireless (Optional)
Ethernet	1 1000BaseT 802.3ab-1999 (CL40) Ethernet
Data Storage	Hard Disk Drive Volume Size Based on Customer Requirements
Input Devices	All configuration performed through remote client connection with VeritiumLive™ Web Network
Power Input	IEC-320 Power Input Connector 90-264 VAC 47-63 Hz Single Phase 40 Watts Maximum 1 Amp Fuses
Dimensions	2.55”h x 9.44”w x 10.25”d (65mm x 240mm x 260mm) with protrusions
Weight	3.6 lbs. (1.7 Kg)
Environmental	Operating Temperature 0 – 60ºC (32 – 140 ºF) Operating Humidity 0-90% Relative Humidity, Non-condensing
Supplied Accessories	Power Cord, 10 ft. shielded, with hospital-grade plug Ethernet Cable, 6 ft. USB Cable, 3 ft. Operator’s Manual Tilt-Up Feet for viewing convenience