AZIMA DLI DCX™
DIAGNOSTIC DATA COLLECTOR / REALTIME ANALYZER

POWER, FLEXIBILITY and INTELLIGENCE DIFFERENTIATES DCX™ FROM TRADITIONAL VIBRATION DATA COLLECTORS AND PROVIDES YOU COMPLETE FREEDOM OF YOUR DESKTOP PC.

TOTAL MOBILITY IN YOUR PLANT

Introducing the Azima DLI DCX, a rugged four-channel vibration data collector specifically suited for modern machine condition analysis. Unique to DCX is its embedded ExpertALERT™ condition monitoring software system, machine historical database and automated machine diagnostics all bundled into a rugged Windows® XP handheld device:

- Perform machine condition analysis, including bearing fault detection using demodulation.
- Balance equipment in the field with optional Balance software.
- Perform advanced cross-channel analysis with optional ALERT Real Time Analyzer.
- Utilize software and functions normally available only on your desktop work station. Bring your important applications and documents into the field with you.
- Communicate via Ethernet or Wifi.

DCX’s patented architecture brings your entire condition monitoring database into the mobile environment. Where multiple DCX and desktop Azima DLI ALERT™ systems exist, machine data is automatically replicated through an innovative database technique that is transparent to the user. Whenever the mobile DCX unit is connected to the network by Wi-Fi or Ethernet, new data will automatically update all other DCX and networked ALERT systems. It’s this functionality that makes competitive route-based data collectors obsolete.

EFFICIENT AND ACCURATE DATA COLLECTION

Tri-axial, simultaneous data collection combined with Azima DLI’s field-proven methodology means you can collect repeatable and complete data in less time. With DCX’s point and click user interface, quickly select another machine or location to test. When a machine test is done, review the entire ensemble of machine data, compare current and previous data and review the automated diagnostic results within moments of completing the machine test.
STANDARD FEATURES

- Embedded ALERT analysis software
- Triaxial displays including FFT, waveforms, orbits, phase, waterfall and overall levels
- Premium (5%) triaxial accelerometer for efficient data collection of multiple axes/directions
- Run-up / coast-down measurements
- Detect roller bearing faults using envelope demodulation
- Orbit displays for detecting sleeve bearing faults
- Simultaneous three-channel data acquisition (4 channels with optional ALERT RTA software)
- Transfer data via USB cable or thumb-drive
- Microsoft® Windows® XP Tablet operating system
- Bright SVGA color display
- 802.11 a/b/g wireless networking
- Integrated Ethernet and USB ports
- Port replicator
- Certified for European Market (CE)

OPTIONS

- Soft or armored integral cable for accelerometer
- Multi-plane field balancing software (ALERT Multiplane Balance)
- Advanced signal analysis software (ALERT RTA)
- Stroboscope / tachometer
- Laser or infrared optical tachometer
- Current clamp for motor current measurements
- Infrared thermomter
- 4-Channel BNC input adapter
- Foreign language support
- ALERT database replication

SPECIFICATIONS

Digital Signal Processing

- Embedded DSP for rapid data collection
- Simultaneous sampling of all four inputs up to 41 KHz
- Anti-aliasing via an analog RC filter plus a 64th order digital FIR filter
- Overall RMS amplitude detection from 10 Hz to 1 kHz

Spectral Analysis

- Four channel, simultaneous FFT up to 16 kHz fmax
- FFT Resolution up to 25,600 lines
- Spectral Windows: Hanning, Hamming, Flat-top and Uniform
- Averaging types: spectral or time-synchronous,
- Overall RMS amplitude detection from 10 Hz to 1 kHz

Time Domain Analysis

- Filtered or unfiltered orbit plots
- Crest factor
- TTL-level tachometer input

Analog Signal Processing

- Dynamic range greater than 85 dB
- Signal to noise ratio greater than 76 dB
- Selectable DC, 0.2 Hz or 10 Hz high-pass analog filtering
- Selectable single stage analog integration
- No more than -76 dB inter-channel crosstalk
- +/- 10 VAC input range (+/- 25 VDC)
- Cable fault check

Physical

- Size: 11.1" x 8.5" x 1.8"
- Weight: 5.3 lbs including battery
- Fully machined metal enclosure
- Scratch resistant display cover glass

Processor / System Memory

- Intel® Core Duo™ processor – 1.2 GHz
- 1 GB RAM

Video Display and Digitizer

- 10.4" 800x600 transmissive LCD color display
- Electromagnetic digitizer
  - More than 1000 dpi resolution
  - Proximity sensing pen with right mouse button

Mass Storage

- Standard 80-GB rotating hard drive
- Optional 16-GB solid-state hard drive
- ALERT Sybase SQL database

Power Consumption & Battery Life

- 2 1/4 hours continuous data collection
- 6 hour battery life with power management
- ACPI power management support
- Battery fast charge from empty in 2 hours
- Universal AC power adapter 110-250 volts, 50-60 Hz

Environmental Specifications

- Ingress protection: IP-65 against dust and water spray
- Operating temperature: -20°C to 50°C
- Storage temperature: -40°C to 70°C
- Shock: 4-foot drop
- Vibration: MIL-STD 810F 514.5 procedure I, Category 4

Applicable International Standards

- Electromagnetic Immunity: EN 61326-1:2006

Specifications are subject to change without notice