

Azima DLI DCX™

Diagnostic Data Collector / Real Time Analyzer



SUPERIOR POWER AND FLEXIBILITY SETS THE DCX APART FROM OTHER VIBRATION DATA COLLECTORS. FREE YOURSELF FROM YOUR DESK WITH THE CONVENIENCE OF THE DCX.

Introducing the Azima DLI DCX, a rugged, four-channel data collector / analyzer especially suited for modern machine condition analysis. Unique to DCX is its embedded ExpertALERT™ condition monitoring software, including automated fault diagnostics and the complete database with historical data, bundled into a rugged Windows® XP mobile 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.

Where multiple DCX and desktop ExpertALERT systems exist, data can be automatically transferred via database replication that is transparent to the user with optional replication package.

Efficient and Accurate Data Collection

Simultaneous triaxial data collection combined with Azima DLI's proven methodology means you can collect repeatable, high quality and complete data in less time. With DCX's tablet PC interface, you simply touch the next machine or location to test. Data are collected in seconds. You can compare your current test results to baseline and to previous data, and you can automatically generate plain-language diagnostic results while still standing next to the machine.

Latest Technology

The DCX is equipped with an Intel® Core Duo™ 1.2 GHz processor and 1 GB RAM in a rugged housing protected against dust and water spray (IP-65).

More powerful computing, great software, reliable hardware, and superior service all contribute to your successful predictive maintenance program. Work smarter with the Azima DLI DCX.

Standard Features

- Embedded ExpertALERT software
- Database setup wizards
- Detect bearing faults using envelope demodulation
- Microsoft® Windows® XP Tablet operating system
- Bright SVGA color, touch screen display
- 802.11 a/b/g wireless networking
- Integrated Ethernet and USB ports
- Port replicator with parallel / serial / VGA / PS/2 connections
- 80 GB rotating hard drive
- Run-up / coast-down measurements
- Tri-axial displays including FFT, waveforms, orbits, waterfall and more
- Premium (5%) tri-axial accelerometer
- Display vibration data and automated diagnostic results
- Certified for European Market (CE)
- Simultaneous three-channel data acquisition (4 channels with optional ALERT RTA software)

Options

- Soft or armored integral cable for accelerometer
- Multi-plane field balancing software
- Advanced signal analysis software (ALERT RTA)
- Stroboscope / tachometer
- Laser or infrared optical tachometer
- Current clamp
- Infrared thermometer
- 4-Channel BNC input adapter
- 16 GB solid-state hard drive
- Foreign language support

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 50 to 25,600 lines
- Spectral Windows: Hanning, Hamming, Flat-top and Uniform
- Averaging types: spectral or time-synchronous
- Overlap processing: 0%, 25%, 50%, or 75%

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
- Rich color saturation and good contrast even in direct sunlight
- Electromagnetic digitizer
 - No surface coatings that wear with use
 - 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
- DLI DCX System Patent #6,484,109

Power Consumption & Battery Life

- 2 1/2 hours continuous data collection
- 6 hour battery life with power management
- ACPI power management support
- Battery fast charge from empty in 2 hours
- Memory-free "smart" Li-ion batteries
- 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

- Electrical Safety: EN 60950-1:2001 (1st Edition)
- Electromagnetic Emissions: ICES-001:2006 Class A, EN 61326-1:2006 Class A, FCC 15.109:2007 Class A
- Electromagnetic Immunity: EN 61326-1:2006

Specifications are subject to change without notice



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