

## TRIO™ 10-SERIES

CX10 DIAGNOSTIC DATA COLLECTOR / EXPERT ANALYZER  
CA10 VIBRATION DATA COLLECTOR / FIELD ANALYZER



The experts choice...  
built for safety, durability  
and performance.

**TRIO™ CX10 and CA10 provide a rugged 10" tablet that is up to the demands of harsh industrial environments.**

The TRIO CX10 and CA10 vibration data collectors and diagnostic instruments are lightweight at just 2.9 pounds and just 1.2 inches thick but are rugged enough for your IP-65 rated environments.

The CX10 and CA10 are designed for the demands of the field and ready to perform. Dependable large swappable battery, powerful dual-core processor, and brilliant 10" touchscreen, this TRIO is built for your work.

### FEATURES INCLUDE

- MaxView™ 10.1" resistive single touch LED screen with automatic backlighting
- Lightweight with high performance. Weighing only 2.9 pounds (1.3kg) the 10-series still offers a single, hot-swappable six-hour standard battery or optional 12-hour extended battery
- Dual core Intel processor for fast performance and power management
- TRIO's Bluetooth® modular integration with the TRIO DP-1 acquisition device for the safest in-field operation
- 5 megapixel camera gives users the ability to document their findings in great detail
- Multiple USB ports, including a waterproof USB, along with network connection, audio headset jack, VGA port, and an RS-232 port makes this device extremely versatile

The rugged TRIO CX10 and CA10 data collectors have an IP-65 environmental rating and the stringent MIL-STD-810G standards for protection against dust, water, vibration, drops, extreme temperatures, and varying altitudes.

Loaded with **Genuine Windows® 7 Ultimate**, this controller can be connected to your network or operate as a stand-alone instrument and it supports multiple foreign language options.



10.1" LED DISPLAY OFFERS A CLEAR VIEW OF MACHINERY DATA IN THE PLANT AND IN DIRECT SUNLIGHT.

TRIO is portal-enabled. The CX10 and CA10 are ready to be connected to the **Azima DLI WATCHMAN Reliability Portal™** for the best enterprise visibility for your condition based maintenance program.

When safety and performance are important, the experts turn to Azima DLI's TRIO data collection instruments.

Delta-3N Kft.  
www.delta3n.hu



For more information on TRIO™ please visit [www.AzimaDLI.com](http://www.AzimaDLI.com)

# TRIO™ 10-SERIES

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## SPECIFICATIONS\*

### SYSTEM OVERVIEW

- Triaxial vibration data collector
- Industrial Windows® 7 Ultimate tablet PC controller
- Wireless, modular-designed data acquisition unit (DP-1)
- Optional handheld laser tachometer
- Flexible carrying options
- CX10 includes embedded ExpertALERT™ (no host software required)
- CA10 includes embedded ALERT™ onboard analysis software (requires hosted ExpertALERT, StandardALERT™, or WATCHMAN Reliability Portal™)
- Sybase 12 SQL database engine
- Survey File Transfer Exchange or optional ALERT replication for synchronization over multiple devices or ALERT systems
- Battery life up to six hours on the controller, 12 hours with extended option
- Ergonomic design for efficient and safer use over traditional data collectors
- 4-plane machine in-place balancing and advanced analysis options available

### USER INTERFACE / DURABLE TABLET CONTROLLER

#### Physical

- Size: 10.8" x 6.7" x 1.2" (275mm x 177mm x 32mm)
- Weight: 2.9 lbs (1.3 kg)

#### Environmental

- Operating: -20C to +60C; Storage: -40C to +60C
- Humidity: Spec to MIL-STD-810G, Method 507.5
- Altitude: 15,000 feet at 23C

#### Durability

- MIL-STD-810G (516.6, IV) drop spec to 4'
- IP65 rated; water, dust, water protection
- SSD storage

#### Processor/Operating System

- Intel® Atom™ N2600 Dual Core processor (1.86 GHz)
- 4 GB DDR3 System Memory
- 64 GB Solid State Drive (SSD), SATA 2.0 at 3.0Gb/s
- Genuine Windows® 7 Ultimate (32-bit)

#### Battery<sup>1)</sup>

- Hot-swappable Lithium-Ion battery: 38.5 Whr capacity  
– Battery capacity: up to 6 hours
- Optional Extended-life battery: 77Whr capacity  
– Battery capacity: up to 12 hours
- 80W charging adapter (100-240V, 2.5A, 50-60Hz)

#### Communication

- Wireless LAN 802.11 (b/g/n)
- Integrated Bluetooth® 4.0

#### Inputs / Outputs

- Resistive single-touch screen
- Stylus input
- 2 USB ports: 1 waterproof 2.0, 1 standard 2.0
- 1 waterproof 9-pin RS-232 port
- 1 waterproof VGA Video Out
- 1 microSD Card
- 1 RJ-45 10/100/1000 LAN
- Waterproof Power jack
- Speaker, Audio / Microphone jack
- 4+1 Navigation / Directional keys, 3 user-programmable buttons
- Rear-facing 5.0 megapixel built-in camera
- On-screen QWERTY soft keyboard
- 10.1" Wide (LED backlit, 1366x768) Display

### TRIO DATA ACQUISITION / PROCESSOR (DP-1)

#### Inputs

- 4 simultaneous sampled, fully phase matched, ICP programmable
- Other Coupling - AC (for proximity probe connection)
- AC Input Voltage Range -  $\pm 5V$
- AC Bandwidth 0.5Hz to 40kHz
- DC Bias/Gap Measurement -  $\pm 25V$  range for ICP bias voltage check and proximity probe gap measurement
- Measurements - Acceleration, velocity (by h/w integration), bearing demodulation (all from accelerometers), and displacement (from proximity probes)
- Gain Ranges - Gain steps 1, 2, 5, 10, 20 and 50
- Digital trigger input - External trigger, tachometer speed, ordered data (by phase-lock-loop)

#### Processing

##### AC Measurements

- ADC - 24-bit sigma-delta, simultaneous on four AC channel inputs, better than 104 dB dynamic range
- Sampling Rates - 64Hz to 102.4kHz
- Bandwidth Ranges - 0.5Hz–25Hz to 0.5Hz–40 kHz, protected by anti-alias filters
- Data Block Lengths - 64 to 400,000 samples
- Spectral lines - Up to 25,600
- Noise Floor - Less than 0.2  $\mu$ -volts per root Hz from 0.5-1000 kHz

##### DC Measurements

- ADC - 16-bit multiplexed for bias voltage, process, and probe gap measurements, 0-10 kHz Bandwidth

#### Analysis Capabilities

- Dynamic Analysis - Overall, Spectra, Waveform, Phase & Speed
- Cross-Channel - Cross-power, Transfer Function, Coherence, Phase and Magnitude
- Demodulation Function - Digital amplitude demodulator and Impact Demodulation for low speed detection
- Averaging - RMS, Exponential, Peak Hold, Order Tracking, Synchronous Time and Negative Averaging
- Number of averages - 1-1000
- FFT Window Function - Hanning, Hamming, Rectangular, Flattop

#### Communications with Host Tablet PC/Controller

- Wireless - Bluetooth v2.0 with EDR (1.5Mbps max), backward compatible to Bluetooth v1
- Interface Port - USB user port (includes data stream and remote power to DP-1)

#### Power

- Charging rate - 0.5A from USB PC input (4 hrs)
- Battery Life<sup>1)</sup> - 8 hours between charges

#### Physical

- Dimensions - 15cm (6.0") x 9cm (3.5") x 4cm (1.5") approx Weight - 450g
- Operating Temperature - -10°C to +60°C (14°F to +140°F)
- Sealing - IP-65, 4' drop, 95% humidity per MIL-STD-810G
- Compliance - CE, RoHS
- Carrying options - Belt worn holster or shoulder worn soft pack

\*Specifications are subject to change without notice

<sup>(1)</sup> Battery life varies by configuration, application, features utilized, and operating conditions. Maximum battery life decreases with time and use. Battery life estimated by average use.

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