TECHNICAL DATA

TRIO® 8-inch controller

Getac T800 / TRIO T8 / HAZLOC TRIO H8

AZIMA | DLI

A Fluke Reliability Company

- ► LIGHT
- ► PORTABLE
- ► 3-YEAR WARRANTY

FEATURES INCLUDE

- 8.1" LCD Capacitive Touchscreen with digitizer stylus pen, rain-mode or glove-mode operation
- 12-hour standard battery, plus optional 8-hour SnapBack add-on battery packs
- Powerful Intel® Atom™ Processor, 4GB RAM and 128 GB solid-state drive (SSD)
- Bluetooth® integration with TRIO DP-2 / DP-2H acquisition hardware for safe in-field collection
- 3-year inclusive warranty on TRIO Controller
- Optional Class 1, Division 2 HAZLOC approval when paired TRIO DP-2H acquisition hardware
- Optional database hosting, cloud application, web portal reporting, business-level metrics and analytical

The TRIO 8-inch is Right Size for a Long Day

The TRIO 8-inch controller maintains a light and rugged ergonomic style with exceptionally long battery life to get through a long day in the harshest plant environments.

The 8" tablet is designed to fit comfortably in one hand! The TRIO H8 is less than 2 lbs. and less than 1" thick, with a concave, non-slip case that makes it easy to grip. The brilliant 8.1" capacitive-touchscreen is incredibly rugged with minimal glare and has four advanced touch modes for rain, gloves, pen, and digitizer operation.

With Window® 10 Professional installed, you are ready to connect the TRIO Controller to your network or operate as a standalone device, supporting your productivity applications and multiple language options.

Trio is Watchman Portal enabled and ready to connect to the Watchman Data Center for simplified database synchronization infrastructure and unparalleled program visibility.

System Overview

- Triaxial vibration data collector
- Industrial Windows 10 Professional 64-bit (CBB) tablet PC controller
- Wireless, modular-designed data acquisition unit (DP-2/DP-2H)
- Optional handheld laser tachometer
- Safe, flexible carrying options
- ALERT™ Data Collection Application
- Optional embedded Expert Automated Diagnostic System
- Survey File Transfer Exchange or optional ALERT replication or WATCHMAN Sync Utility for synchronization over multiple devices or ALERT systems
- Optional 4-plane machine in-place balancing and advanced analysis options

FLUKE Reliability

User Interface/Durable Tablet Controller

Physical / Environmental / Durability	
Size:	8.93" x 5.94" x 0.94" (227mm x 151mm x 24mm)
Weight:	1.94 lbs (0.88 kg)
Operating:	-21C to +50C; Storage: -51C to +71C
Humidity:	95% RH, non-condensing
Rugged	per MIL-STD-810G
IP65, IEC 60529 rated;	water, sand, and dust protection
Class 1, Division 2, Group A, B, C, D, T6	per UL/ANSI/ISA 12.12.01
Processor/Operating System	
Intel® Atom™ x7-Z8750 1.6 GHz Processor	
4 GB LPDDR3 system memory, 128 GB Solid State Drive (SSD)	
Genuine Windows 10 Professional CBB (64-bit)	
TPM v2.0 data security; NIST BIOS compliant	
Battery	
Lithium-ion standard battery:	7.4V, 4200 mAh capacity
SnapBack 2nd battery Life:	14.4V, 2100 mAh
Communication	
Wireless-AC 7265, 802.11 ac	
Integrated Bluetooth v4.0	
Inputs / Outputs	
8.1" Capacitive touchscreen, 1280x800 resolution	• IPS TFT LCD HD, 600 NITs, LumiBond 2.0 sunlight readable • Digitizer Pen, Rain Mode, Glove Mode
USB 3.0 port	
Micro-HDMI	
DC power input port	
Speaker, audio / microphone combo-jack	
6 button keypad (power, volume up, volume down, home, P1, P2)	
Rear-facing 8.0 MP built-in camera with autofocus	
On-screen QWERTY soft keyboard	
Carry Options	
Belt-worn holster and palm strap	
Optional 4-point harness	
Optional shoulder strap	

Trio Data Acquisition/Processor (DP-2/DP-2H)

Data Acquisition Inputs	
4 simultaneous sampled, fully phase matched, ICP programmable	
Other Coupling:	AC (for proximity probe connection)
AC Input Voltage Range:	±10V
AC Bandwidth:	0.5Hz to 40kHz
DC Bias/Gap Measurement:	±25V range for ICP bias voltage check and proximity probe gap measurement
Measurements:	Acceleration, velocity (by hw integration), bearing demodulation (accelerometers), and displacement (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:	0.5–25Hz, 0.5–40 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 µ-volts per root Hz from 0.5-1000 kHz
Processing - 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 and 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
Power	
Charging rate:	0.5A from USB PC input (4 hrs.), 1.0A from USB wall adapter
Battery Life:	8 hours between charges (continuous collection)

Trio Data Acquisition/Processor (DP-2/DP-2H)

Communications with Host Tablet PC / Controller	
Wireless	Bluetooth v2.0 with EDR (1.5Mbps max)
Wired	USB user port (includes data stream and remote power to DP)
Physical / Environmental / Durability	
Dimensions:	6.18" x 3.62" x 1.81" (157mm x 92mm x 46mm)
Weight:	1.0 lb. (450 grams)
Carrying options	Belt worn holster or shoulder worn soft pack
Operating Temperature:	-10C to +60C
IP-65 rated;	water, sand, and dust protection
4' drop per MIL-STD-810G	
0 ~ 90% humidity per MIL-STD-810G	
Compliance:	CE, ETL Listed, Optional: Class 1, Division 2, Group A, B, C, D, T6

TECHNICAL DATA

TRIO® 10-inch controller

Getac UX10 / TRIO T10 / HAZLOC TRIO H10

AZIMA | DLI

A Fluke Reliability Company

- ► RUGGED
- ► POWERFUL
- ► 3-YEAR WARRANTY

FEATURES INCLUDE

- 10.1" FHD Capacitive Touchscreen with digitizer stylus pen, rain-mode or glove-mode operation
- 8+ hour standard battery, high-capacity optional
- Powerful Intel® Core™ i5 Processor, 8GB RAM and 256 GB solid-state drive (SSD)
- Bluetooth® integration with TRIO DP-2 / DP-2H acquisition hardware for safe in-field collection
- 3-year inclusive warranty on TRIO Controller
- Optional Class 1, Division 2 HAZLOC approval when paired TRIO DP-2H acquisition hardware
- Optional database hosting, cloud application, web portal reporting, business-level metrics and analytical second opinions

TRIO® 10-inch Gives Versatility to the Field Analyst

The TRIO 8-inch controller maintains a light and rugged ergonomic style with exceptionally long battery life to get through a long day in the harshest plant environments.

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Trio is Watchman Portal-enabled and ready to connect to the Fluke Reliability hosted AI platform simplified database synchronization infrastructure and unparalleled program visibility.

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- Optional 4-plane machine in-place balancing and advanced analysis options

FLUKE Reliability

User Interface/Durable Tablet Controller

Physical / Environmental / Durability	
Size:	10.82" x 7.51" x 0.88" (275mm x 191mm x 22.4mm)
Weight:	2.68 lbs (1.22 kg)
Operating:	-29C to +63C; Storage: -51C to +71C
Humidity:	95% RH, non-condensing
Rugged	per MIL-STD-810G
IP65, IEC 60529 rated;	water, sand, and dust protection
Class 1, Division 2, Group A, B, C, D, T6	per UL/ANSI/ISA 12.12.01
Processor/Operating System	
Intel® Core i5-8265U 1.6 GHz Processor	
8 GB DDR4 system memory, 256 GB Solid State Drive (SSD)	
Genuine Windows 10 Professional CBB (64-bit)	
TPM v2.0 data security; NIST BIOS compliant	
Battery	
Lithium-ion battery:	11.1V, 4200 mAh capacity
Optional high capacity battery:	10.8V, 9420 mAh
Communication	
Intel dual-band wireless-AC 9260 (802.11ac)	
Integrated Bluetooth v5.0	
10/100/1000 base-T ethernet	
Inputs / Outputs	
10.1" Capacitive touchscreen, 1920x1200 resolution	▪ PS TFT FHD LCD, 1000 NITs, LumiBond® 2.0 sunlight readable ▪ Digitizer Pen, Rain Mode, Glove Mode
USB 3.1 port	
HDMI	
DC power input port	
Speaker, audio / microphone combo-jack	
6 button keypad (power, volume up, volume down, home, P1, P2)	
Rear-facing 8.0 MP built-in camera with autofocus	
Front-facing FHD webcam	
On-screen QWERTY soft keyboard	
Carry Options	
Shoulder strap and palm-strap with kickstand	
Optional 4-point harness	

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Dimensions:	6.18" x 3.62" x 1.81" (157mm x 92mm x 46mm)
Weight:	1.0 lb. (450 grams)
Carrying options	Belt worn holster or shoulder worn soft pack
Operating Temperature:	-10C to +60C
IP-65 rated;	water, sand, and dust protection
4' drop per MIL-STD-810G	
0 ~ 90% humidity per MIL-STD-810G	
Compliance:	CE, ETL Listed, Optional: Class 1, Division 2, Group A, B, C, D, T6

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For more information about Azima DLI or Fluke Reliability:
visit www. flukereliability.com or
email the team at azimasales@Fluke.com

TECHNICAL DATA

ALERT RTA™

Real time analyzer for TRIO™ diagnostic data collectors and expert analyzers

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A Fluke Reliability Company

Enhance TRIO's advanced troubleshooting options and four channel capabilities.

FEATURES INCLUDE

- Two-channel functions (transfer function, cross-power, coherence) for modal analysis (structural natural frequencies, mode shapes, friction characteristics) and operating deflection shape analysis (self-excited shape of motion)
- Export to ASCII or universal file format
- 4-channel simultaneous acquisition
- Data logging—spool data to disk, optional delay, auto indexing
- Transient data capture, triggered, pre-trigger buffer capable
- Advanced orbit capability; synchronous markers, probe angle settings, revolution-byrevolution display
- ALERT style graphing tools
- Multiple graph display

ALERT Real Time Analyzer extends the functionality of your condition monitoring program using your existing TRIO™ hardware. ALERT RTA broadens the range of troubleshooting situations for which vibration measurement technologies may be applied.

With four-channel simultaneous data acquisition, crosschannel measurements, and data export functionality, ALERT RTA provides the tools necessary to troubleshoot sophisticated machinery problems.

With ALERT RTA, the full capabilities of the TRIO Processor are realized, allowing the simultaneous use of all four data acquisition channels in addition to the dedicated tachometer channel input. This provides for advanced measurement techniques such as transfer functions, coherence and crosspower spectrum.

Each of the four input channels can be independently configured for different transducer types, units or signal conditioning. Cross-channel measurements can be collected for channels 1-3 relative to the 4th channel. Users can configure triggered measurements or long time captures. Multiple measurements can be displayed and update simultaneously as data are collected.

ALERT RTA readings can be automatically logged to disk as measurements are completed. Measurement data may be exported into either ASCII or Universal File Format (UFF) files. Graphing software such as Excel, or Operational Deflection Shape (ODS) software such as ME'Scope may then be used for analysis.

Multiple graph displays gives better analytical visibility.

Specifications*

Data collection
Continuous
One-time
Spectral analysis
Spectra: Up to 25,600 lines
Frequency range: 0.5 – 40,000 Hz
Long time capture
Up to 102,400 samples
64 Hz to 102.4 kHz sample rate
Window types
Hanning
Hamming
Flat Top
Rectangular
Averaging
Time or Frequency domain
Linear, Exponential, Peak-hold
Overlap processing: 0–75%
Inputs
4 channel simultaneous
Auto-range: selectable per channel
Cable fault check: selectable per channel
ICP sensor power: selectable per channel
Analog integrator: selectable per channel (via units)
Selectable gain: 1X, 10X dedicated tachometer or Keyphasor input
Triggering
Selectable channel or tachometer source
Trigger level: enter in engineering units
Pre-trigger delay: Up to 100% of frame size
Trigger slope: selectable
Demodulation
Impact demod 100 Hz to 5000 Hz
Impact demod filters: selectable high-pass 500 to 5000 Hz
Legacy demod 100 Hz to 20,000 Hz
Legacy demod filters: selectable bandpass
Instrument compatibility
TRIO™ CX-series
TRIO™ CA-series

Data collection options
Time waveform
Amplitude spectra
Triggered data acquisition
Continuous or single-shot capture
Cross-power spectrum
Transfer function
Coherence
Orbit Plot, synchronized orbit plot (with tachometer)
Demodulated spectrum
Demodulated waveform
Cepstrum
ISO 2954 overall RMS
DC value
1X amplitude/phase (with tachometer)
Tachometer speed
Data logging
Auto indexed
Delay from 0 – 32000 seconds
Data export
ASCII (delimited)
Universal File Format (UFF) version 58
Graphical analysis
Harmonic cursor
Sideband cursor
Reference cursor
Zoom
Flag peaks
Revolution-by-revolution orbit display
Log scalar readings via strip chart

***Technical Specifications are subject to change**

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For more information about Azima DLI or Fluke Reliability:
visit www. flukereliability.com or
email the team at azimasales@Fluke.com