# **Qualmark Data Acquisition** High Performance HALT/HASS Data Capture

#### **Overview**

By definition Highly Accelerated Life Testing and Highly Accelerated Stress Screening/Audits (HALT/HASS/HASA) require multi-dimensional stresses with a complexity of application that requires data capturing capabilities that can keep pace.

Data acquisition is key to any successful accelerated reliability program for recording the applied stresses and monitoring the unit under test. Capturing and logging information surrounding product/component failure modes provides the data by which effective failure analysis can take place. ESPEC's latest data acquisition offerings present the test engineer with an array of options for flexibility and portability while providing a stable platform for high speed data export from the Qualmark T-series HALT and QF300 HASS systems.

ESPEC's data acquisition software now has a refreshed look and feel and is redesigned for maximum ease-of-use on Windows<sup>®</sup> 7 or 10.

### **Spectrum Analyzer**



System requirements:

#### **Desktop Integration**

ESPEC's Spectrum Analyzer can be ordered with your HALT or QFusion system with software pre-loaded for quick and easy setup. This desktop configuration is packaged with a signal conditioner and supports up to 6 channels of vibration. The software has been completely revitalized with a highly intuitive display of menus, functions and data capture. User selected vibration averaging and one-click data capture can be saved as specified in user defined custom configurations.

If you already have the Spectrum Analyzer but would like expanded functionality and newer version operating system compatibility, refer to ESPEC's Spectrum Analyzer Upgrade Kit on the next page.

> Intel<sup>®</sup> Core<sup>™</sup>i3 (minimum) i5 (preferred); Memory 2GB (minimum, 4GB (preferred); Windows 7 or 10; CD drive; USB drive; 1024 x 768 monitor resolution; 5 GB available hard drive space for software installation (data storage requires additional space)

Qualmark Spectrum Analyzer - Order part # 785-2534

Includes signal conditioner, interface cable, power cord, PCIe Daq card, and software.

**Recommended Option:** 

ESPEC adhesive mount 10mV/G accelerometer - Order part #300-0224 (order 6, one for each channel)

### Portable Spectrum Analyzer



#### Laptop Portability

ESPEC's Portable Spectrum Analyzer comes in a compact (3.5" x 4.0" x 1.0") package with an integrated signal conditioner that captures 4 channels of vibration or 16 channels of thermocouples. This pocket-sized design permits the single user license to connect via USB with a laptop for more convenient transport between Typhoon and QFusion systems. ESPEC's Portable Spectrum Analyzer supports Windows 7 or 10 and provides a highly intuitive interface. The new features offer easy setup and user-defined customizable settings with tabbed menu navigation for faster, more efficient access to information.

System requirements: Intel<sup>®</sup> Core<sup>™</sup>i3 (mimimum) i5 (preferred); Memory 2GB (minimum, 4GB (preferred); Windows 7 or 10; CD drive; USB drive; 1024 x 768 monitor resolution; 5 GB available hard drive space for software installation (data storage requires additional space)

Qualmark Portable Spectrum Analyzer - Order part # 956-0263 Includes chassis, vibration module and/or thermocouple module, USB cable, and software.

Recommended Option: ESPEC adhesive mount 10mV/G accelerometer - order part #300-0224 (order 4, one for each channel)

Type TT 72" Thermocouples - order part # 785-1537 (order sixteen (16) for each channel)

## QDaq



System requirements:

ESPEC QDaq - Order part # 956-0209

### **Ultimate Flexibility**

ESPEC's state-of-the-art data acquisition system, QDaq<sup>™</sup>, provides a flexible solution supporting expanded HALT and HASS data acquisition that provides dynamic charting and analysis capabilities. QDaq provides a combination of up to 32 thermal channels or up to 12 vibration channels of data acquisition in a single, modular design that can accommodate portability between Qualmark systems. QDaq's compact chassis comes with an integrated signal conditioner for capturing vibration input. QDaq's software enables temperature and vibration data capture across corresponding time charts and plotting of Power Spectrum Density (PSD) in a tabbed, user-friendly interface with customizable configuration settings that will streamline data file management. QDaq leverages the power of Windows 7 or 10 operating systems and connects with any PC or laptop via USB. QDaq software must be ordered separately. Order part numbers 956-0209 and 785-2478 for the complete QDaq package

Intel<sup>®</sup> Core<sup>™</sup>i3 (minimum) i5 (preferred); Memory 2GB (minimum), 4GB (preferred); Windows 7 or 10; CD drive; USB drive; 1024 x 768 monitor resolution; 5 GB available hard drive space for software installation (data storage requires additional space)

Includes 4 slot chassis, USB interface cable, power cord, and software. Chassis can be configured with thermocouple modules and/or vibration modules. If thermocouple modules are selected, 6" long patch cables are included for ease of connecting user thermocouples.

(Software is not compatible with previous ESPEC Spectrum Analyzers. Please refer to the Upgrade Kit below.)

Optional Desktop Mounting Kit - order part # 300-0208

**Recommended Options:** 

Type TT 72" Thermocouples - order part # 785-1537 (order thirty-two (32) for each channel)

ESPEC adhesive mount 10mV/G accelerometer - order part #300-0224 (order eight (8) for each channel)

### Spectrum Analyzer Upgrade Kit

Previous editions of ESPEC's Spectrum Analyzers were developed based on technology at the time and are not compatible with the newer analyzer software. To support any new Operating System you may have recently purchased or may purchase in the future, your existing ESPEC Spectrum Analyzer will require an upgrade kit installation consisting of interface cable, PCIe Daq card and software to function properly.

System requirements:

Intel<sup>®</sup> Core<sup>™</sup> i3 (minimum) i5 (preferred); Memory 2GB (minimum, 4GB (preferred); Windows 7 or Windows 10; CD drive; USB drive; 1024 x 768 monitor resolution; 5 GB available hard drive space for software installation (data storage requires additional space)

Spectrum Analyzer Upgrade Kit - order part # 785-2607



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