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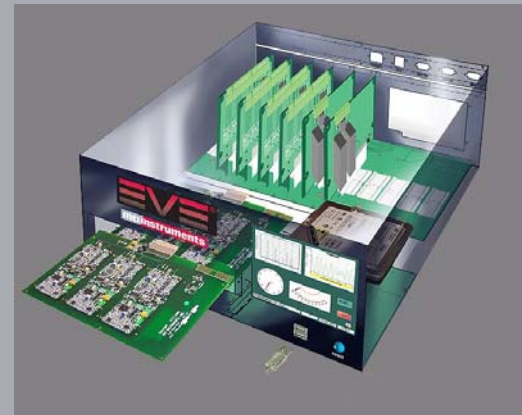
**mti instruments**

The worldwide leader in precision measurement solutions



**Measurement Technology That Eclipses All Others**

MTI Introduces a powerful new system enabling test operators to integrate virtually any sensor technology – MTI or competition – into a complete, integrated data acquisition, monitoring and reporting system.



# Summary



- Truly compelling integrated data acquisition and reporting solution for a wide range of applications
- Support for MTI Instruments measurement technology
- Compatible with virtually all of your sensors
- Auto-discovery of card types and configurations
- Powerful user interface combines ease of use and setup with powerful data analysis and reporting tools
- “Recipe” based configurations can be stored and recalled assuring test repeatability
- Robust I/O capabilities

# All About EVE



- An integrated solution, not just a package of bits and pieces needing expensive technical resources to install, configure and operate
  - No assembly is required
  - No reliance on multiple resources to stitch a system together, program it and explain how to use it
  - No specialized programming – not a single line of code, simple touch screen selections required to setup / run test protocols
  - EVE's functionality ensures proper test documentation and validation, insures compliance

# Product Overview



- In a world demanding increasing productivity with flat or decreasing resources ...
  - Fewer engineers and programmers
  - Management imperative to increase efficiency and production without increase in resources
- EVE offers a system level solution that ...
  - Makes the test operators life easier – new equipment without a steep learning curve
  - Appeals to the testing area managers – more productive operators, no complicated setups, improved repeatability in testing and reduction in retest time and setup
  - Helps management demonstrate improved productivity with a modest capital expenditure

# Specifications - General



- 19" modular desktop chassis with optional rack mount
- Dimensions: 400 mm D x 442 mm W x 160 mm H
- Power: 100 – 240 VAC, 47 – 63 Hz, 380 Watts (universal CE compliant auto-switching power supply)
- Core processor: Genuine Intel®
- Windows® XPE
- Display: 6.5" color touch screen control
- EMC shielded enclosure

# Specifications - I/O, Interface, Configuration



- I/O Analog
  - 2 MTI proprietary capacitance cards for total of up to 6 capacitive displacement channels
  - 4 dual-channel input plug-in interface cards
- I/O Digital
  - One 8 channel I/O card
- All I/O Card Slots Support Auto Discovery
- External I/O
  - 4 USB ports
  - Ethernet 100base (remote configuration of system through laptop in lieu of touch screen interface)

# Front Panel

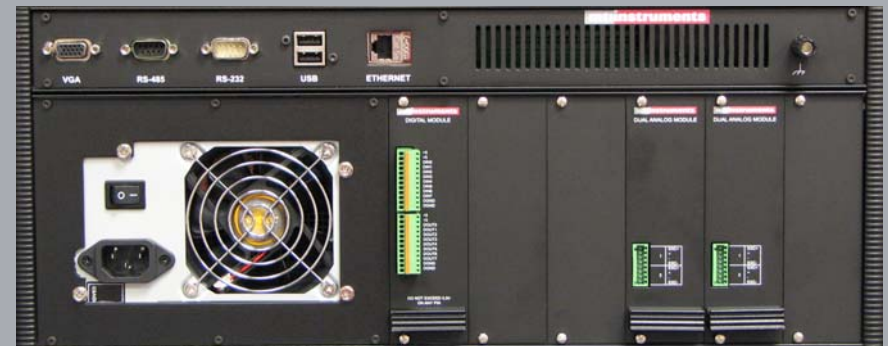


- Display
  - Color TFT VGA touchscreen display
- Card Slots
  - Two 3 channel capacitance amplifier card slots accommodates MTII capacitance cards
  - Up to 6 simultaneous measurements of displacement, vibration and/or position
- USB 2.0 Ports
  - 4 ports



# Rear Panel

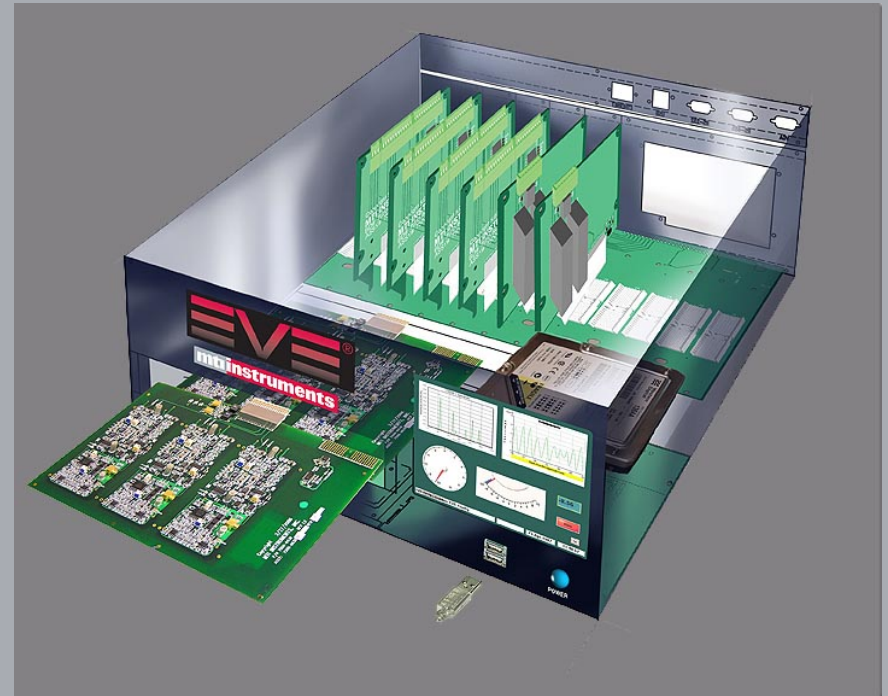
- Card Slots
  - Accepts up to four 2-channel analog input cards accommodating almost any combination of external sensors
  - One additional slot for digital 8-bit TTL input and 8-bit TTL output connection
- Allows for 8 signal processing inputs



# Sensor I/O



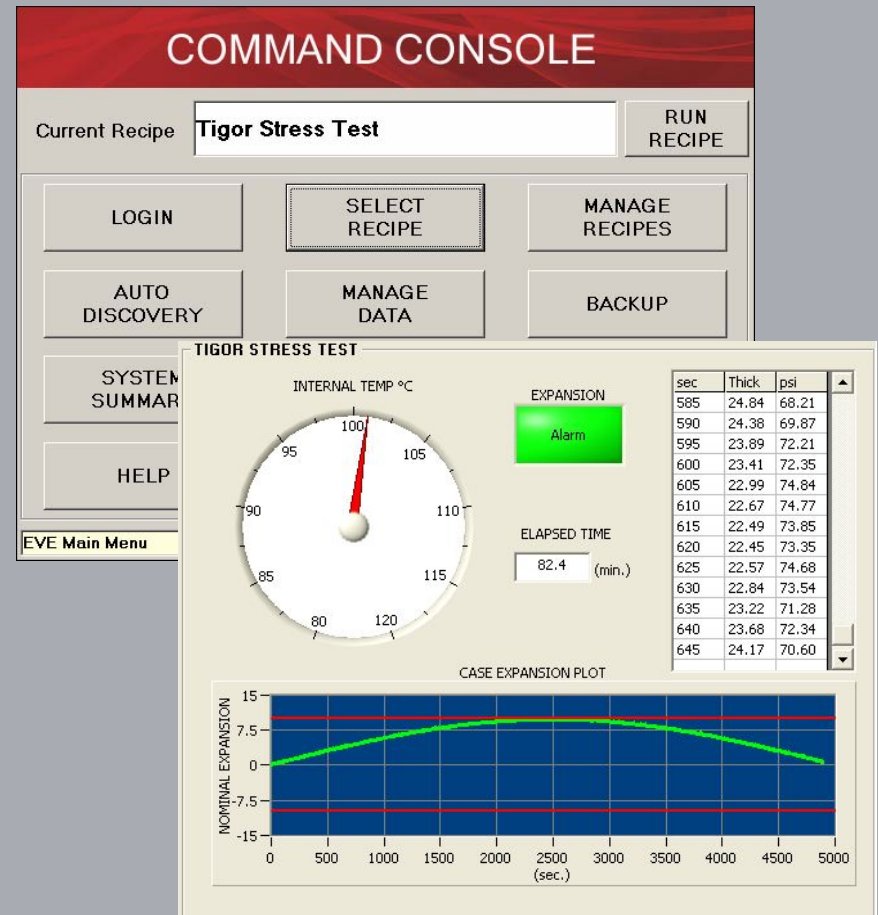
- EVE can accept up to 14 different sensor inputs
- Support for virtually any signal type allows system operator to simultaneously monitor and analyze multiple channels
- Isolated inputs are standard
- Each input can have its own scaling, sample rate, sample duration and alarm conditions for any test



# User Interface



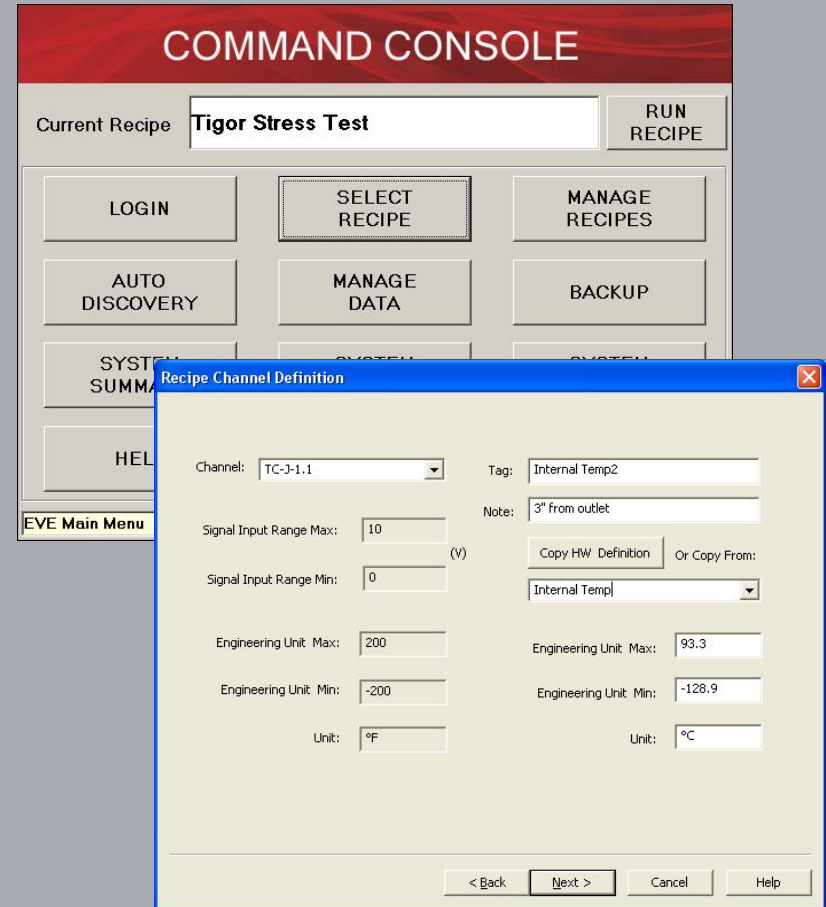
- Command center on integrated touch screen display
- 6.5" TFT VGA touch screen
- Bright display, easily readable in almost any lighting condition
- Intuitive configuration
- Algorithm construction and recipe selection via touch screen display
- Display also provides real-time results in graphical and tabular formats



# Setup and Operation



- Recipe construction allows test protocols to be configured quickly and easily
- Test protocols can be conducted automatically from new or stored recipes
- Upon selection of recipe, EVE automatically scans system to determine card types, sensitivities and output configurations
- Deviations from recipe requirements are immediately flagged and reported



# Data Collection and Network Connectivity



- Ethernet 100base with external laptop connect capability to remotely configure interface
- 4 USB Ports for loading recipes or downloading data
- RS-232 configurable serial port
- RS-485 configurable serial port

The image shows a software dialog box titled "Recipe Data Log Definition". It contains several fields and options for configuring data logging:

- Tag Name:** A list box containing "Amb Pressure", "Downstream Pressure", "Downstream Temp", "Flow Rate", "Inside Wall Disp", "Outside Wall Disp", and "Upstream Temp2".
- Selected Tags:** A list box containing "Upstream Pressure", "Upstream Temp1", and "Wall Thickness".
- Log File Name:** A text field containing "Pipeline Wall Thickness.csv".
- Limit Log To:** A checkbox labeled "Limit Log To:" followed by a text field and the word "Records".
- Data Log Rate:** A text field containing "10" followed by "(Samples/min)".
- Log Start Condition:** A group box containing three radio buttons: "Start with Recipe", "After [ ] Hr(s)", and "After the following Condition". The "After the following Condition" option is selected, and a dropdown menu below it shows "Wall Thickness Alarm (ON)".
- Log End Condition:** A group box containing three radio buttons: "End with Recipe", "After [72] Hr(s)", and "At the following Condition". The "After [72] Hr(s)" option is selected, and a dropdown menu below it is empty.
- Buttons:** At the bottom right, there are four buttons: "< Back", "Next >", "Cancel", and "Help".

# Applications



- Aerospace vehicle testing
- Medical device manufacturing
- Pharmaceutical packaging
- University research
- Semiconductor process monitoring
- Paper web monitoring
- In-line process monitoring
- Injection molding
- Paper/board thickness
- Machine tool gauging
- Brake rotor analysis
- Material endurance testing
- Spindle & shaft runout/vibration
- Glass sheet and bottle inspection
- LCD/FPD QC
- Ultrasonic vibration control
- Accelerated life testing

*For more information - Call MTI at 518-281-2500  
Visit us on the web at [www.mtiinstruments.com](http://www.mtiinstruments.com)*

When you come across ANY potential application for EVE or any of our products, call MTI so that our experienced engineers can review your requirements and offer a practical and cost effective solution.

