

# Motherboards

## Multichannel Signal Conditioner Enclosures

LORD MicroStrain® multichannel signal conditioner enclosures AKA Motherboards are designed to house our DEMOD-DVRT® or DEMOD-DVRT®-TC signal conditioner cards. The Motherboards have a desktop console form factor and provide a plug and play chassis for the cards. The Motherboards variously provide power, grounding, multiplexing, analog-to-digital conversion, configuration, analog output, RS-232 output and LCD display. Motherboards can support 1 to 8 signal conditioner cards, have a small footprint, and operate within a wide temperature range.



## Features & Benefits

- plug and play chassis for LORD MicroStrain® DEMOD-DVRT® and DEMOD-DVRT®-TC signal conditioning cards
- compatible with all DVRT® sensors
- small desktop footprint
- programmable LCD display available
- RS-232 interface and software available
- short warm up time
- operating temperature is -40°C to +85°C
- universal power supply including medical grade

## Applications

Used with LORD MicroStrain® DVRT® sensors for:

- miniature control elements for automotive and robotic systems
- process control for production-line monitoring
- dimensional gauging for quality control applications
- measuring strain and deflection in materials science and civil structures
- linear/angular positioning of optical components
- miniature force, torque, acceleration sensors
- measuring strain, micromotion and deformation in bone and tissue

## System Overview

Motherboards come in five different models:

**The MB-STD-4** houses 1 to 4 DEMOD-DVRT® or DEMOD-DVRT®-TC, and includes EMI/RFI chassis shielding, power supply and analog output.

**The MB-STD-8** houses 1 to 8 DEMOD-DVRT® or DEMOD-DVRT®-TC, and includes EMI/RFI chassis shielding, power supply and analog output.

**The MB-SMT-4** houses 1 to 4 DEMOD-DVRT® or DEMOD-DVRT®-TC, and includes multiplexer, 14 bit A/D converter, microprocessor, serial communication chip, power supply, EMI/RFI chassis shielding, analog output, RS-232 output, software and manual.

**The MB-SMT-8** houses 1 to 8 DEMOD-DVRT® or DEMOD-DVRT®-TC, and includes multiplexer, 14 bit A/D converter, microprocessor, serial communication chip, power supply, EMI/RFI chassis shielding, analog output, RS-232 output, software and manual.

**The MB-SMT-D** houses 1 or 2 DEMOD-DVRT® or DEMOD-DVRT®-TC, and includes multiplexer, 14 bit A/D converter, microprocessor, serial communication chip, power supply, EMI/RFI chassis shielding, analog output, RS-232 output, programmable LCD display, software and manual.

## Specifications

	MB-STD-4	MB-STD-8	MB-SMT-4	MB-SMT-8	MB-SMT-D
Number of DEMOD® cards	1-4	1-8	1-4	1-8	1-2
Supports all DVRT®	x	x	x	x	x
110 VAC power supply	x	x	x	x	x
220 VAC power supply	x	x	x	x	x
110 VAC medical grade power supply	x	x	x	x	x
Power indicator LED	x	x	x	x	x
Analog output	x	x	x	x	x
LCD display					x
RS-232 output (digital)			x	x	x
RS-232 interface cable			x	x	x
Software XP/Vista/Win7			x	x	x
Software development kit			x	x	x
Dimensions 8" x 6-1/4" x 2-1/2"	x	x	x		x
Dimensions 8" x 6-1/4" x 3-1/4"				x	
Operating temperature -40 °C to +85 °C	x	x	x	x	x

