MODEL EB-L & EB-J ANALOG SURFACE MOUNT ACCELEROMETER TEST SET





- Easily test SDI's analog surface mount accelerometers during concept design or prior to installation
- Chips can be removed and remain unharmed
- Fully assembled for immediate implementation
- Compatible with SDI Models, 1521, 1522, 1525 and 1531
- Use with the SDI Model 3330 or 3340 G-Loggers for quick calibration
- Configurations available for SDI's JLCC or LCC chip packages
- Contents include:
 - One test board with L or J package zero-insertion force test socket and compatible jumpers installed
 - o One Ribbon cable with 10-pin connector

The Model EB-L Analog and EB-J Analog Test Sets provide a convenient means of testing and evaluating SDI Models 1521, 1522, 1525, and 1531 surface mount accelerometers in either the LCC or JLCC package format. The zero-insertion-force socket is pre-fitted to the board, which includes set jumpers for advanced features of SDI accelerometers. A 10-pin connector and ribbon cable is provides connections to the user's test equipment. The EB-L Set, EB-J Set, and SDI Surface Mount Accelerometers are each sold separately.

OPERATION

The EB-J and EB-L Analog Test Sets come fully assembled and ready to integrate with a test system.

- 1. Install the accelerometer into the socket with pin 1 (▶) towards the socket hinge.
- 2. With the 10-pin connector on the left (see board layout below) jumper pins are 1-2-3
 - a. EB-L Analog has 2 pin jumpers for both JP4 and JP5.
 - b. EB-J Analog has a 2-pin jumper for only JP4. There is no JP5 on this board

Please see specific, 1521, 1522, 1525, and 1531 accelerometer data sheets for a complete description of functions.

Signals & CABLE SPECIFICATIONs

PIN #	SIGNAL NAME	SIGNAL DESCRIPTION	WIRE COLOR
1	DV	Deflection voltage input	Brown wire *
2	Clk Out	Master CLK OUT (NA for 1510) Set JP2	Red wire
3	IT/ CLK IN	Temperature output/ Slave CLK IN (NA for 1510) Set JP1 and JP4 **	Pink wire
4	VR	+5 volt Reference Voltage input. Set JP3 to use ext source.	Yellow wire
5	AOP	Analog output, Positive	Green wire
6	VDD	+5V Power	Blue wire
7	-	(not used)	Purple wire
8	AON	Analog output, Negative	Grey wire
9	+2.5V	+2.5V Reference	White wire
10	GND	Ground	Black wire

* PIN 1 is marked on header cable with a triangle

**PIN 3 is dual function configure with JP1, JP2 and JP4 jumpers.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

EB-L ANALOG BOARD JUMPER DESCRIPTIONS

Default settings in BOLD.

JP	1-2	2-3	NO JUMPER	COMMENTS
1	Slave clock	Internal CLK	NA	Int/Ext CLK setting.
2	Master CLK OUT ON	Master CLK OUT OFF	NA	CLK OUT
3	VR and 2.5 volt from VDD	NA	External VR	Separate VR and VDD
4	Temp signal circuit	Not Used	CLK IN at PIN 3	Dual function
5	2.5 volt from VR	NA	External 2.5 volt	2.5 volts at pin 9





ADDITIONAL NOTES: EB-L ANALOG JUMPER USE

- 1. <u>Slave mode</u>, SDI 1521, 1522, and 1531 accelerometers may be configured to run from an external CLK, to keep them synchronized with other external components. JP 1 set to 1-2 turns off both the internal clock and temperature output signal.
- 2. <u>Master mode.</u> Alternative option in a multiple axis configuration is to configure one of the accelerometers to provide a clock to the other Slave accelerometers (and external components if desired). JP 2 set to 1-2 turns on the CLK OUT from the designated Master accelerometer.
- 3. If JP 3 is installed, VR draws power from VDD. Similarly, with JP 5 installed the 2.5 volt is also derived from VR. Remove JP 3 to provide external 5 volts to VR at pin 4 and JP 5 to provide external 2.5 volts at pin 9.
- 4. The 1521, 1522, and 1531 have a temp signal output capability when in default mode or Master mode. The voltage is approximately 1 1.3 volts at room temperature. Set JP 4 to 1-2. <u>When the SDI 1521, 1522, and 1531 are in Slave mode (see note 1 above) the temperature output signal is disabled</u>. Omitting JP 4 completely removes the resistor used in the temperature circuit or the recommended pull up line for 1510. A CLK may then be provided at PIN 3 to the accelerometer.

EB-J ANALOG BOARD JUMPER DESCRIPTIONS

Default settings in BOLD.

JP	1-2	2-3	NO JUMPER	COMMENTS
1	Slave clock	Internal CLK	NA	Int/Ext CLK setting.
2	Master CLK OUT ON	Master CLK OUT OFF	NA	CLK OUT
3	External VR and 2.5 volt	VR 5 +2.5 volt derived from VDD	NA	Separate VR and VDD
4	Temp signal circuit	NA	CLK IN at PIN 3	Dual function





ADDITIONAL NOTES: EB-J ANALOG JUMPER USE

- 1. <u>Slave mode</u>, SDI 1521, 1525 and 1531 JLCC accelerometers may be configured to run from an external CLK, to keep them synchronized with other external components. JP 1 set to 1-2 turns off both the internal clock and temperature output signal.
- 2. <u>Master mode.</u> Alternative option in a multiple axis configuration is to configure one of the accelerometers to provide a clock to the other Slave accelerometers (and external components if desired). JP 2 set to 1-2 turns on the CLK OUT from the designated Master accelerometer.
- 3. If JP 3 is installed, VR draws power from VDD. Move JP 3 to 1-2 and provide external 5 volts to VR at pin 4.
- 4. The SDI 1521, 1525 and 1531 have a temp signal output capability when in default mode or Master mode. The voltage is approximately 1 1.3 volts at room temperature. Set JP 4 to 1-2. <u>When the SDI 1521, 1525 and 1531 are in Slave mode (see note 1 above) the temperature output signal is disabled</u>. Omitting JP 4 completely removes the resistor used in the temperature circuit. A CLK may then be provided at PIN 3 to the accelerometer.

The EB-J Analog is not compatible with SDI 1527, contact SDI for test boards for 1527.

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