- **Available on VME64x bus architectures**
- **Up to 2 measurement and 6 simulation channels on single card**
- **Common On-board Oscillator for reference signal generation**

MEASUREMENT FUNCTION

- **Internally Synthesized Reference**
- **Software programmable 10-, 12-, 14- or 16-bit resolution**
- **Input amplitudes: 2 Vrms L-L, 11.8 Vrms L-L, or 90 Vrms L-L**
- **Incremental Encoder Emulation or Velocity Output**
- **Transformer isolation for all input channels**

SIMULATION FUNCTION

- **Output Amplitudes 11.8 Vrms L-L for Synchro or Resolver for Simulation function**
- **Optional Transformer Isolation**
- **Programmable Two-Speed Ratio**
- **Software driver support for Windows 2000, Windows XP, Linux, RT Linux**

OVERVIEW

The AT Synchro/Resolver series of products provide fully independent Synchro/Resolver-to-Digital and fully independent Digital-to-Synchro/Resolver channels. These are available on 6U VME64x module. Each channel is implemented using DDC converters. A common on-board oscillator eliminates the need for an external reference oscillator. Transformer isolation is available on-board for measurement channels while it is optional for simulation channels.

The cards are available in various combinations. Up to 2 measurement (Synchro/Resolver-to-Digital) Channels and 6 simulation (Digital-to-Synchro/Resolver) Channels can be configured. The S/R-D products can be used as Synchro/Resolver simulator to test the equipment, which has Synchro/Resolver interface in it. The D/S-R products can be used for angular measurement applications.

Hardware

The card is capable of accommodating most military voltages; e.g., 11.8, or 90 Vrms @ 400 Hz. This architecture allows for minimum board count to achieve the maximum functionality in systems that require precision positioning, control and stabilization. Each input channel of S/R-D is independent and maybe configured as either a Synchro or Resolver input using on-board jumpers. Each output channel of D-S/R is independent and maybe configured as either a Synchro or Resolver output using on-board jumpers.

Software

The AT-VME-SRC software includes

- Virtual Instrument Panels
- Drivers & APIs

Virtual Instrument Panels

The AT-VME-SRC card comes with a "Virtual Instrument Panel" providing interactive control of Synchro/Resolver features. The control interface appears on the computer display & user manipulates these controls with a mouse/trackball or keyboard. The purpose of Virtual Instrument Panel is to help the user (mostly system integrators) to quickly setup & use the card, just like a stand-alone instrument with physical front-end knobs, controls & display without getting into programming intricacies.

Drivers & APIs

The AT-VME-SRC card comes with a powerful set of library functions to access the Synchro/Resolver functionality. The drivers are designed in a modular fashion consisting of component functions & application functions. The user's test program can be developed with a few calls to the card driver, by using the set of application functions provided. Drivers and high-level API libraries for Windows 2000/XP, Linux, RT-Linux is are available.

AT-VME-SRC-M2S6

Synchro/Resolver Measurement and Simulation Card

PRODUCT SPECIFICATIONS

Synchro/Resolver to Digital

- Channels: Up to 2 channels
- Resolution: Programmable 10-, 12-, 14-, 16- bit
- Accuracy: 2 arcminute
- Inputs: Jumper selectable S/R inputs
- Reference: Separate external reference for each channel
- Speed: Programmable speed ratios
- Frequency: 400 Hz

Digital to Synchro/Resolver

- Channels: Up to 6 channels
- Resolution: 16-bit
- Accuracy: 1 arcminute
- Outputs: Jumper selectable S/R signal outputs
- Isolation: Optional Transformer isolation
- Speed: Programmable speed ratios
- Frequency: 400 Hz
- Output Drive: 1.2 VA

Others

- Rear I/O connectivity option provided for VME card
- Wrap around self-test provided
- Built-in tests for all I/O channels provided

Software Support

- Driver support for Windows 2000/XP, Linux, RT-Linux

Physical

- VME: VME64x, 6U size
- Dimensions: 233mm x 160 mm

Environmental

- Operating Temperature: 0°C to + 50°C
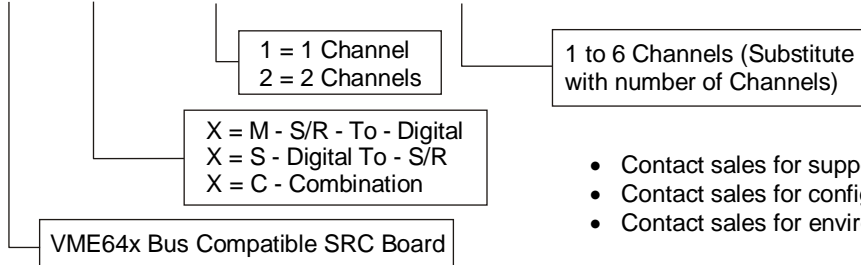- Storage Temperature: -20°C to + 70°C

Warranty

- 1 year limited warranty

ORDERING INFORMATION

Hardware Selection

AT-VME-2-2-SRX-Measurement Channels-Simulation Channel

| 1 = 1 Channel |
| 2 = 2 Channels |

1 to 6 Channels (Substitute with number of Channels)

| X = M - S/R - To - Digital |
| X = S - Digital To - S/R |
| X = C - Combination |

VME64x Bus Compatible SRC Board

- Contact sales for support for other Operating Systems
- Contact sales for configuration of front and rear I/O configuration
- Contact sales for environmental options

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