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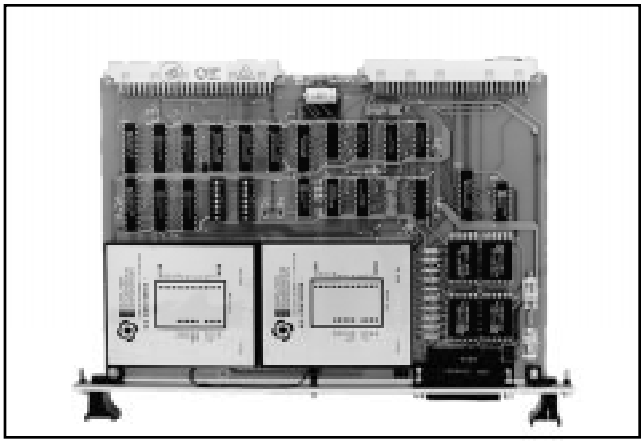
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Find the *Abaco Systems / VMIC VMIVME-4900-224* at our website: ***Click HERE***

# VMIVME-4900
## Dual-Channel Digital-to-Synchro/Resolver Converter Board

- 14-bit converter with an overall accuracy of ±4 arc minutes
- 3- or 4-wire output for driving synchros or resolvers, respectively
- Internal transformers
- Front panel fail LED
- AMP D-type connector (no. 206584-1) for front panel field connection
- 1.5, 4.5, and 5.0 VA outputs
- Nonprivileged or supervisory short I/O
- Supports real-time and off-line fault detection and isolation
- Compatible with VMIC's Intelligent I/O Controller product line
- Model VMIVME-4900-218R is directly compatible with high power synchro booster amplifiers
- Model VMIVME-4905 is also available with 5.0 VA outputs



## FUNCTIONAL CHARACTERISTICS

**Compliance:** This product complies with the VMEbus specification Rev. C.1 with the following mnemonics: A16: D32, D16, D08 (EO): 29, 2D: Slave 6U form factor

**Output Connector Type:** AMP no. 2065841 (front panel)

**Output Organization:** Two ports, 16 bits wide. Addressable to any address within short supervisory or short nonprivileged I/O map.

**Address Modifier Codes:** Jumper-selectable for short supervisory or short nonprivileged I/O access. Factory configured for short supervisory I/O access.

**Addressing Scheme:** Two ports individually addressable. Address DIP switches provide unlimited short data I/O address map selection.

**Fail LED:** A front panel Fail LED (red) is provided for quick fault isolation. The LED is illuminated upon powerup clear (system reset) and is extinguished under program control.

## PHYSICAL/ENVIRONMENTAL

**Operating Temperature Range:** 0 to 45 °C (5.0 VA options only)
0 to +55 °C (all other options)

**Storage Temperature Range:** -20 to +85 °C

**Relative Humidity Range:** 20 to 80 percent, noncondensing

**Cooling:** Convection

### Ordering Options

**December 16, 1993 800-000101-000 C**

**VMIVME-4900**

| Dual or Single | Ref. Input [2] | Output Voltage RMS L-L) | Freq. (Hz) | VA [3] | Board Output Type | Model No. VMIVME- |
|---|---|---|---|---|---|---|
| Single | 26 V | 11.8 V | 400 | 1.5 | Synchro | 4900-024 |
| Single | 26 V | 11.8 V | 400 | 1.5 | Resolver | 4900-124 |
| Dual | 26 V | 11.8 V | 400 | 1.5 | Synchro | 4900-224 |
| Dual | 26 V | 11.8 V | 400 | 1.5 | Resolver | 4900-324 |
| Single | 115 V | 90.0 V | 400 | 1.5 | Synchro | 4900-014 |
| Dual | 115 V | 90.0 V | 400 | 1.5 | Synchro | 4900-214 |
| Single | 115 V | 90.0 V | 400 | 4.5** | Synchro | 4900-054** |
| Dual | 115 V | 90.0 V | 400 | 4.5** | Synchro | 4900-254** |
| Single | 115 V | 90.0 V | 60 | 1.5** | Synchro | 4900-016** |
| Dual | 115 V | 90.0 V | 60 | 1.5** | Synchro | 4900-216** |
| Dual | 115 V | 7.0 V | 47-400 | *** | Resolver | 4900-308*** |
| Single | 26 V | 11.8 V | 400 | 5.0** | Synchro | 4900-034** |
| Dual | 26 V | 11.8 V | 400 | 5.0 ** | Synchro | 4900-234** |

* Built-in-Test requires one Synchro/Resolver-to-Digital Converter for *wrap-back* testing of Digital-to-Synchro/Resolver. Refer to the *VMIC Synchro/Resolver Configuration Guide* (VMIC's Document No. 825-000000-004) for a detailed explanation.
** Requires two VMEbus chassis slots (VMIC manufactures a 5.0 VA single-slot board VMIVME-4905).
*** Directly compatible with ILC Data Device Corporation's high power 25 VA Synchro Booster Amplifiers.

### Notes

1. All Synchro/Resolver boards, except options 054, 254, 016, and 216, require external ±15 V power supplies. These four options acquire their power from the reference input via an efficient internal pulsating power supply. Refer to Power Requirements elsewhere in this specification. Power input connectors are available on VMIC's Synchro/Resolver Backplane (SRTbus).
2. ±10 percent maximum for specified accuracy; +20 percent absolute maximum without damage. The output voltage is linearly proportional to the reference input voltage.
3. Drive capability is proportional to the minimum load impedance.

### I/O Connector Data (Front Panel)

| | |
|---|---|
| Compatible Cable Connector | AMP 747322-2 |
| Strain Relief Kit | Type D |
| PC Board Header Connector | AMP 206584-1 |

**For Ordering Information, Call:**
**1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859**
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**Power Requirements:**
+5 V ±5 percent at 2 A
+15 V ±10 percent at 600 mA per channel (typical)
-15 V ±10 percent at 600 mA per channel (typical)

External ±15 V power supply is required for all options except 154S, 254S, 116S, and 216S, which obtain their power from the reference input (via an efficient internal pulsating power supply) which draws a maximum of 50 mA plus 1 mA per mA of load.

**BUILT-IN-TEST DESCRIPTION** — The VMIVME-4900 supports fault detection and isolation when used with the VMIC SRTbus™ and the model VMIVME-4910 or -4911. The SRTbus is a Synchro/Resolver test bus that utilizes the user I/O pins on the P2 VMEbus connector. Programming the proper control bits in each output word of the VMIVME-4900 allows field disconnect and/or real-time testing via the SRTbus and the VMIVME-4910 or -4911. The user should refer to the VMIVME-4900 functional block diagram and the Synchro/Resolver Configuration Guide (VMIC's Document Number 825-000000-004) for a thorough understanding of the Built-in-Test operation.

## TRADEMARKS

The SRTbus is a trademark and the VMIC logo is a registered trademark of VMIC. Other registered trademarks are the property of their respective owners.

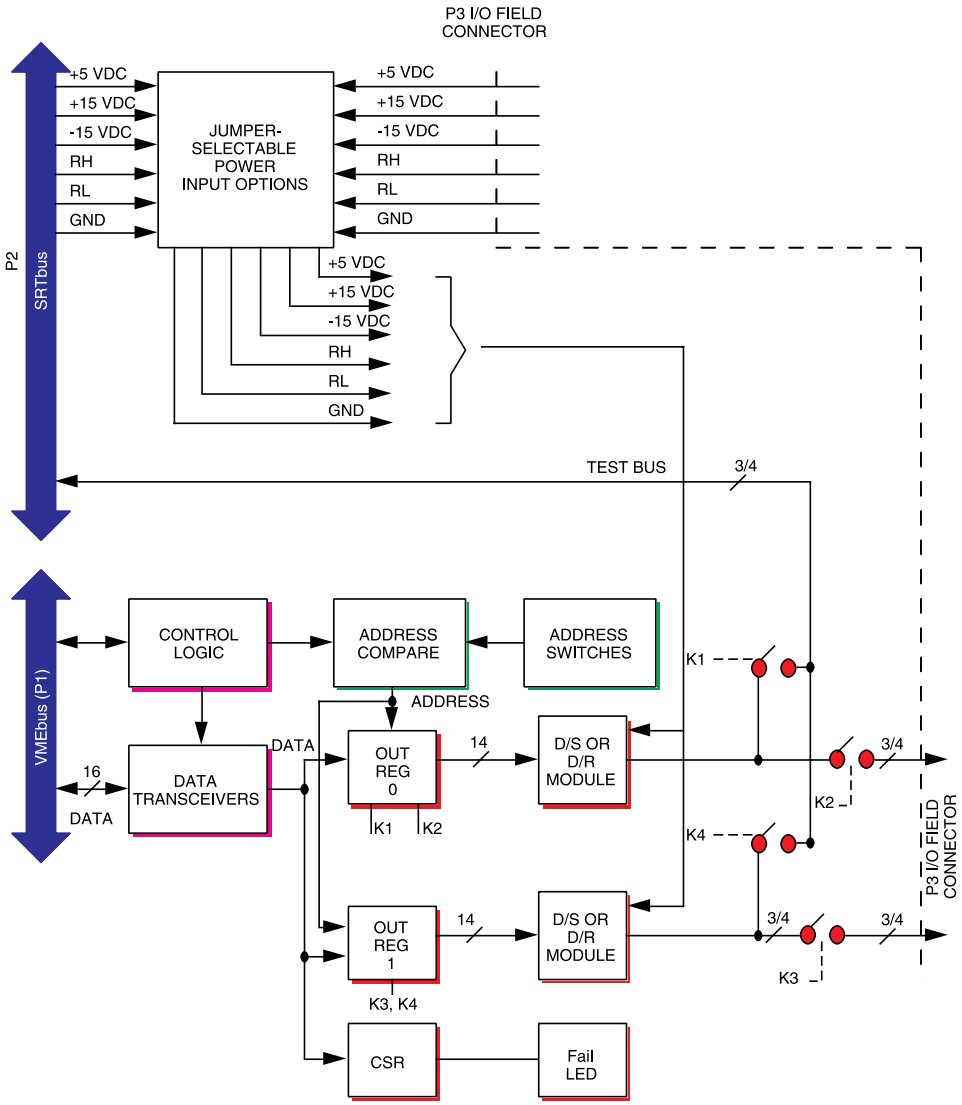



**Figure 1. VMIVME-4900 Digital-to-Synchro/Resolver Functional Block Diagram**



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