



Model VM32PA2.0

32 Channel

Programmable Amplifier >100 kHz to 2.0 MHz VME Board

Description

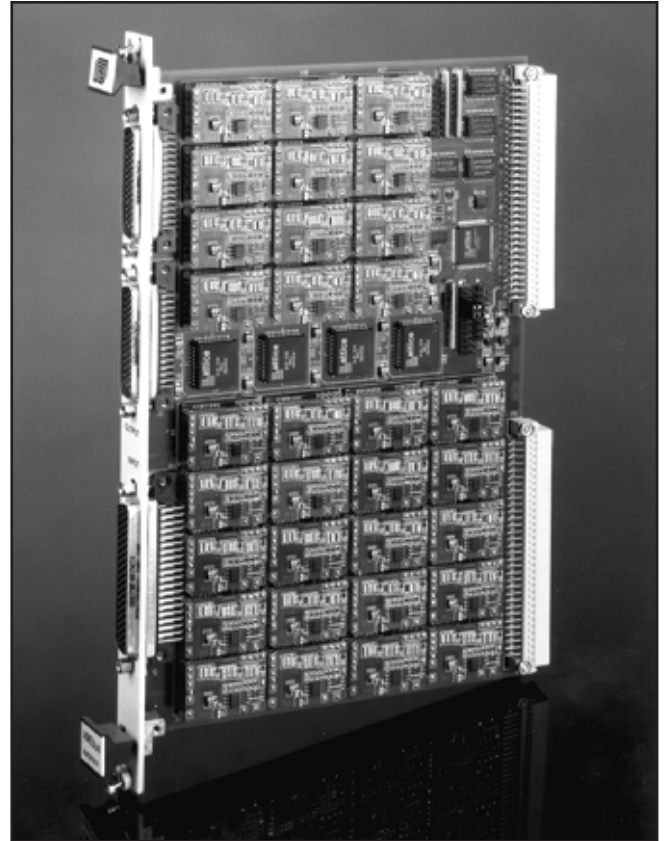
Frequency Devices' Model VM32PA2.0 comprises a family of VMEbus amplifier boards offering software programmable differential amplifiers in a single width B-size (6U) VME form factor. VM32PA2.0 boards provide simultaneous access to 32, DC-coupled wideband signals while providing programmable gain from -12dB to +36dB in 6dB steps for signal bandwidths from >100 kHz to 2.0 MHz. VM32PA2.0 boards may be configured with 8, 16, or 32 channels. The boards conform to VME revision C.1 as an A16/D16 Slave. Available options include AC-coupled input.

Features/Benefits:

- Simultaneous access over 32 channels offers a low cost, versatile and convenient way to provide amplification.
- Three active read/write registers provide programming and set-up verification.
- Phase match of $\pm 2.0^\circ$ and gain accuracy of $\pm 0.1\text{dB}$ provides precision performance solutions to design engineers, system integrators and OEM's.
- High channel count density without sacrificing performance maximizes chassis utilization.

Signal conditioning applications include:

- Sonar, navigation and aerospace
- Engine test and simulation
- Acoustic and vibration analysis
- Satellite and telecommunications
- Laboratory R & D
- Automatic test equipment (ATE)
- Industrial process control



U.S. Selling Price (1-4)

VM32PA2.0-8	..\$1,700.00
VM32PA2.0-16	.. 1,800.00
VM32PA2.0-32	.. 2,200.00
Add Price of PGA Modules	
U.S. Selling Price + 20%	
F.O.B. Haverhill, MA	
Accept Visa, Mcard, Amex	

Orders for Export
 Minimum Order Value \$150.00
 Lead-Time: 6-8 weeks A.R.O

GAIN AMPLIFIER

PGA5-2.0 -12 dB to +36 dB in 6 dB steps

Ordering Information

8, 16, or 32Channels

Optional

A- AC Coupled Input

VM32PA2.0-32-PGA5-2.0-A



Specifications

(@ 25°C and rated power Input)

Wideband Programmable Gain Amplifier

32 CHANNEL VME SIGNAL CONDITIONING BOARD

Analog Input

- | | |
|---------------------------------------|---|
| 1. Impedance | 1 M Ω differential, 500 k Ω to ground, each leg |
| 2. Linear input range | 8 V pk-pk, each leg |
| 3. CMRR | \geq 50 dB, DC to 100 kHz
\geq 40 dB, 100 kHz to 2 MHz |
| 4. Maximum input range | 20 V pk-pk, each leg |
| 5. AC coupling (Optional Fixed Freq.) | 20 Hz to 1.0 kHz |

Analog Output

- | | |
|---------------------------|---|
| 6. Impedance | 50 Ω , single-ended |
| 7. Drive capability | \geq 50 Ω load impedance |
| 8. Linear operating range | 2 V pk-pk |
| 9. Offset voltage | < 25 mV typ. at output |
| 10. Offset temp. coeff. | 1.5 mV/°C at output
25 mV/°C referred to input |

Programmable Amplifier

- | | |
|--------------------------------|--|
| 11. Signal bandwidth (-3 dB) | 2 MHz |
| 12. Amplitude match | 0.2 dB over specified bandwidth, chan. to chan. |
| 13. Phase match | \pm 2.0° over specified bandwidth |
| 14. Noise voltage density, RTI | 16 nV/ $\sqrt{\text{Hz}}$ |
| 15. Distortion (2 V pk-pk) | \leq -60 dB, 20 Hz to 100 kHz
\leq -50 dB, 100 kHz to 2 MHz |
| 16. Gain programming | 0.25X to 64X in factors of 2 |
| 17. Gain accuracy | \pm 0.1 dB |

VMEbus

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|---------------|--|
| 18. Interface | A16/D16, D08 (EO), Slave |
| 19. Registers | Three active R/W registers in 64 byte blocks |

Power Supply

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|------------------------|--|
| 20. From VME Backplane | +5V – 1.0A max.
\pm 12 - 1.25A max. |
|------------------------|--|

Environmental

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|---------------|------------------------|
| 21. Operating | 0°C to +70°C |
| 22. Storage | -25°C to +85°C |
| 23. Humidity | 0 - 95% non-condensing |

Mechanical

- | | |
|----------------------------|---|
| 24. Card Size | VMEbus 6U single slot 9.17 x 6.3 inches, (233 x 160 mm) |
| 25. No. of Input Channels | 32 Differential |
| 26. No. of Output Channels | 32 Single Ended, Two groups of 16 |
| 27. Mating Connectors | Input: Male high density 78-pin D sub, Quantity 1
Output: Female high density 44-pin D sub, Quantity 2 |
| 28. Weight | 1.0 LBs., (454 grams) |