FREQUENCY DEVICES™, INC.

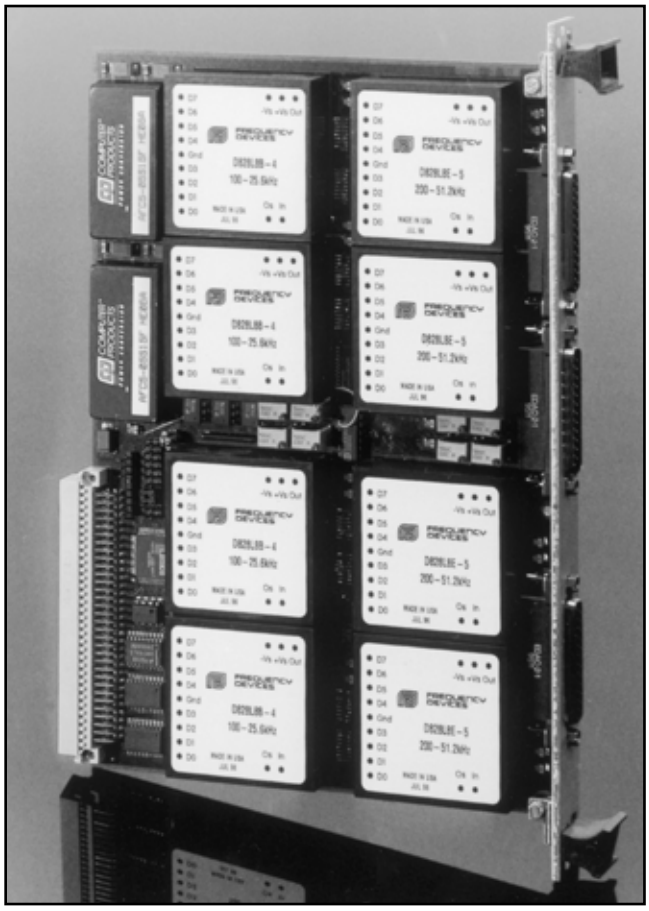
Model VM8PF

8-Channel

Programmable VME Filter Board

Description

Frequency Devices' Model VM8PF comprises a family of VMEbus filter boards offering eight channels of software programmable, precision linear analog filtering in a single width B-size (6U) VME form factor. VM8PF boards receive up to eight high level differential signal inputs through a shielded front panel connector and provide signal buffering and software programmable filtering with unity gain for each channel. A second connector is wired in parallel with the input connector to facilitate filter bypass. VM8PF boards may be configured with 4- or 8-pole filters in any one of five standard factory set tuning ranges from 1.0 Hz to 102.4 kHz, and with high- or low-pass transfer functions allowing user to externally cascade filters into band-pass configurations. The boards conform to VME revision C.1 as an A16/D16 Slave.



Features/Benefits:

- Simultaneous sampling over 8 channels provides a low cost, versatile and convenient way to control filtering and gain scaling.
- Solves precision performance problems of design engineers, system integrators and OEM's.
- Broad range of transfer characteristics and corner frequencies are offered to meet a wide range of applications.
- Low harmonic distortion and wide signal-to-noise ratio to 16-bit resolution.

Signal conditioning applications include:

- Engine test and simulation
- Automotive test cells
- Aerospace, navigation & sonar
- Laboratory R & D
- Acoustic and vibration analysis
- Satellite & Telecommunications
- Automatic test equipment (ATE)
- Industrial process control

LOW-PASS FILTER OPTIONS

4-pole	D824
8-pole	D828

HIGH-PASS FILTER OPTIONS

4-pole	D824
8-pole	D828

BAND-PASS FILTER OPTIONS

2-pole pair	824BP
4-pole pair	828BP

BAND-REJECT (NOTCH) FILTER OPTIONS

4-pole pair	828BR

Ordering Information

Channels
4 or **8**

Filter Type and Corner Frequency
D824 or **D828**

VM8PF-8-D828H8E-2

1784 Chessie Lane, Ottawa, IL 61350 • Tel: 800/252-7074, 815/434-7800 • FAX: 815/434-8176
e-mail: sales@freqdev.com • Web Address: http://www.freqdev.com

Specifications

(@ 25°C and rated Power Input)

Programmable
VME Filter Board

8 CHANNEL PROGRAMMABLE FILTER BOARD

Analog Input

1. Impedance	1 MΩ
2. Input Range	+/-10V pk. linear
3. Maximum Input	+/-15V
4. Common Mode Rejection	70 dB typ., 60dB min. DC to 1 kHz

Analog Output

5. Impedance	1 Ω typ., 10 Ω max.
6. Linear Operating Range	+/-10V pk.
7. Channel to Channel Crosstalk	-95 dB typ. DC to 100 kHz
8. Maximum Current	+/-2mA
9. Offset Voltage	+/-2mV typ. trimmable to zero
10. Short Circuit Protection	Short to Ground

Filter Characteristics

11. See 824 and 828 Series specifications
12. External 8-bit CMOS latches hold frequency data

Gain

13. Low-pass	X1, +/-1%
High-pass	X1, +/-2%

VMEbus

14. Interface	A16/D16, D08(EO) Slave only, VME Spec. Rev. C.1

Power Supply

15. From VME Backplane	+5V, 3.5A max.

Environmental

16. Operating	0°C to +70°C
17. Storage	-25°C to +85°C
18. Humidity	0-95% non-condensing

Mechanical

19. Card Size	VMEbus 6U single slot 9.17 x 6.3 inches, (233 x 160 mm)
20. No. of Input Channels	8 Differential - DC coupled
21. No. of Output Channels	8 Single Ended - DC coupled
22. Mating Connectors	25-pin “D”, Quantity 3
23. Weight	3 lbs., (1.36 kg.)

We hope the information given here will be helpful. The information is based on data and our best knowledge, and we consider the information to be true and accurate. Please read all statements, recommendations or suggestions herein in conjunction with our conditions of sale which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions, nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

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