# **Model VM8PF**



## 8-Channel

## 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

## **Ordering Information**

Channels 4 or 8

## Programmable VME Filter Board



#### LOW-PASS FILTER OPTIONS 4-pole D824

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

> Filter Type and Corner Frequency D824 or D828

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## **Specifications**

(@ 25°C and rated Power Input)

Programmable VME Filter Board

#### 8 CHANNEL PROGRAMMABLE FILTER BOARD

Analog Input 1. Impedance 2. Input Range 3. Maximum Input 4. Common Mode Rejection	1 MΩ +/-10V pk. linear +/-15V 70 dB typ., 60dB min. DC to 1 kHz	
Analog Output 5. Impedance 6. Linear Operating Range 7. Channel to Channel Crosstalk 8. Maximum Current 9. Offset Voltage 10. Short Circuit Protection	1 Ω typ., 10 Ω max. +/-10V pk. -95 dB typ. DC to 100 kHz +/-2mA +/-2mV typ. trimmable to zero Short to Ground	
Filter Characteristics 11. See 824 and 828 Series specifications 12. External 8-bit CMOS latches hold frequency data		
<b>Gain</b> 13. Low-pass High-pass	X1, +/-1% X1, +/-2%	
VMEbus 14. Interface	A16/D16, D08(EO) Slave only, VME Spec. Rev. C.1	
<b>Power Supply</b> 15. From VME Backplane	+5V, 3.5A max.	
<b>Environmental</b> 16. Operating 17. Storage 18. Humidity	0°C to +70°C -25°C to +85°C 0-95% non-condensing	
Mechanical 19. Card Size 20. No. of Input Channels 21. No. of Output Channels 22. Mating Connectors 23. Weight	VMEbus 6U single slot 9.17 x 6.3 inches, (233 x 160 mm) 8 Differential - DC coupled 8 Single Ended - DC coupled 25-pin "D", Quantity 3 3 lbs., (1.36 kg.)	

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