



### 32 Channel

#### Description

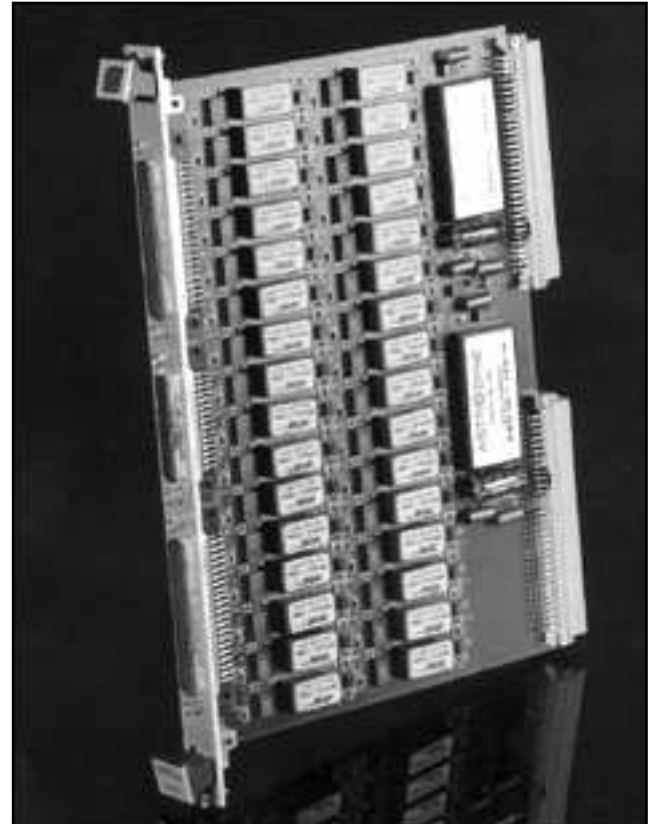
Frequency Devices model VM32FF comprises a family of VMEbus filter boards offering 32 channels of fixed frequency, linear analog filtering in a single width B-sized (6U) form factor. VM32FF boards receive up to 32 high level differential signal inputs through a shielded front panel connector and provide signal buffering and unity gain for each channel (optional - customer specified gain). Boards may be configured with 2-pole D72 or 4-pole D74 filters from 1.0 Hz to 100.0 kHz, and with high-pass or low-pass (anti-alias) transfer functions allowing user to externally cascade filters into band-pass configurations. Each channel provides low harmonic distortion and wide signal-to-noise ratio to 12 bit resolution.

#### Features/Benefits:

- Simultaneous access over 32 channels offers a low cost, versatile and convenient way to provide amplification and filtering.
- Interchannel crosstalk <-80 dB provides precision performance solutions to design engineers, system integrators and OEM's.
- 2- and 4-pole Butterworth or Bessel transfer functions with a broad range of corner frequencies are offered to meet a wide range of applications.
- High channel count density without sacrificing performance maximizes chassis utilization.

#### Signal conditioning applications include:

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



#### LOW-PASS FILTER OPTIONS

2-pole	D72, DP72
4-pole	D74, DP74

#### HIGH-PASS FILTER OPTIONS

2-pole	D72
4-pole	D74



## Specifications

(@ 25°C and rated Power Input)

## Fixed Frequency VME Filter Board

### 32 CHANNEL VME SIGNAL CONDITIONING BOARD

#### Analog Input

- 1. Impedance 1 GΩ//15pF
- 2. Maximum Input ±10V pk linear
- 3. Over Voltage Protection ±60 V
- 4. Common Mode Rejection 75 dB min. @ 60 Hz

#### Analog Output

- 5. Impedance 0.1Ω typ., 1.0Ω max
- 6. Linear Operating Range ±10V pk
- 7. Channel to Channel Crosstalk <-80 dB @ 10 kHz
- 8. Maximum Current ±2.0mA
- 9. Offset Voltage ±10mV max.
- 10. Offset Temp. Coeff. 20 μV/°C
- 11. Short Circuit Protection Short to Ground
- 12. Peak Distortion @ 1 kHz, 3.54 Vrms 80dBc max.
- 13. In-band Spectral Noise, Gain of X500 230nV/√ Hz

#### Filter Characteristics

- 14. See D72 or D74 Series Specifications
- 15. Cut-off Frequency  $f_c$  (-3dB) Fixed frequency from 1 Hz to 100 kHz

#### Gain

- 16. Nominal Gain 1X
- 17. Accuracy ± 1.0%  
(optional) 10X, 100X, 1000X, Contact factory for other gain options

#### Power Supply

- 18. From VME Backplane +12V and -12V, ±5%, 0.9A max. each, no load
- 19. Isolation Analog ground may be isolated from VME and chassis ground by jumper

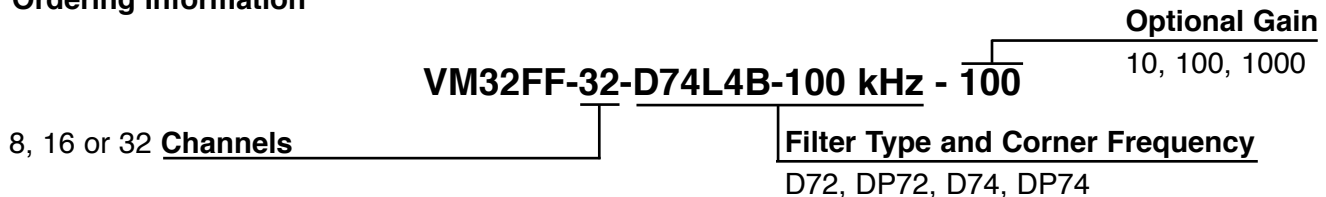
#### Environmental

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

#### Mechanical

- 23. Card Size VMEbus 6U single slot 9.17 x 6.3 inches, (233 x 160 mm)
- 24. No. of Input Channels 32 Differential - DC coupled Two groups of 16
- 25. No. of Output Channels 32 Single Ended - DC coupled
- 26. Mating Connectors Input: Female high density 62-pin D-sub  
Output: Male high density 44-pin D-sub
- 27. Weight 1.5 LB2., (681 grams)

#### Ordering Information



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