FREQUENCY DEVICES™, INC.

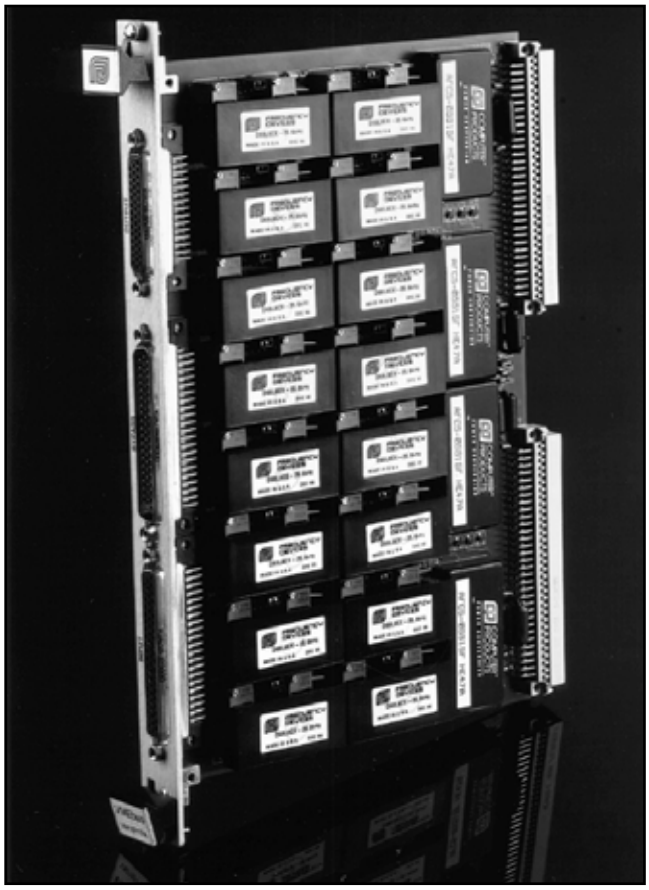
Model VM16FFFA

16-Channel

Fixed Frequency Filter with Selectable Gain VME Board

Description

Frequency Devices' Model VM16FFFA comprises a family of VMEbus filter/amplifier boards offering sixteen channels of linear analog filtering with jumper-select gain of 1, 10, 100, 200 and 500 in a single width B-size (6U) VME form factor. Each instrument offers sixteen differential signal inputs through a shielded front panel connector that provides signal buffering, gain setting, and fixed frequency filtering for each channel. VM16FFFA boards may be configured with one of several filters with standard factory set cut-off frequencies from 0.02 Hz to 100 kHz, and with high- or low-pass transfer functions allowing user to externally cascade filters into band-pass configurations. The boards use the VMEbus for power only.



Features/Benefits:

- A convenient way to provide simultaneous access to 16 channels of precise filtering and gain in a VME system.
- Individual I/O offset adjustment for each channel allows for offset adjustment independent of gain.
- 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 with interchannel crosstalk <-80 dB.

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

2-pole	D72, DP72
4-pole	D61, D64, DP64, D74, DP74
6-pole	D66, DP66, D76, DP76
8-pole	D68, DP68, D78, DP78

HIGH-PASS FILTER OPTIONS

2-pole	D72
4-pole	D61, D64, D74
6-pole	D66, D76
8-pole	D68, D78

BAND-PASS FILTER OPTIONS

2-pole pair	D64BP
4-pole pair	D68BP

BAND-REJECT(NOTCH) FILTER OPTIONS

4-pole pair	D68BR

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FREQUENCY DEVICES™, INC.

Model VM16FFFA

Specifications

(@ 25°C and rated Power Input)

VME Filter Board

16 CHANNELS OF FIXED FREQUENCY FILTERS AND SELECTABLE GAIN

Analog Input

1. Impedance	1 MΩ//47pF
2. Input Range	±10V pk. linear
3. Maximum Input	±30V peak, either input
4. Common Mode Rejection	70 dB typ., 60 dB min. @ 60 Hz.

Analog Output

5. Impedance	1 Ω typ., 10 Ω max.
6. Linear Operating Range	±10V pk.
7. Channel to Channel Crosstalk	<-80 dB @ 20 kHz
8. Maximum Current	±5mA
9. Offset Voltage	±2mV max. trimmable to zero
10. Short Circuit Protection	Short to Ground
11. Peak Distortion @ 1 kHz, Gain of x1	-95 dBc max., D68 w/7.07 Vrms input
12. In-band Spectral Noise, Gain of x500	80nV / $\sqrt{Hz}$ max., D68 idle channel

Filter Characteristics

13. See Series Specifications	D61, D64, D66, D68, D72, D74, D76, D78, D64BP, D68BP, D68BR

Gain

14. Jumper Selectable Steps	1, 10, 100, 200, 500
15. Accuracy	±2%

Power Supply

16. From VME Backplane	+5V ± 5% 4.0 A max., outputs unloaded
17. Isolation	Analog ground may be isolated from VME and chassis ground by jumper.

Environmental

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

Mechanical

21. Card Size	VMEbus 6U single slot 9.17 x 6.3 inches, (233 x 160 mm)
22. No. of Input Channels	16 Differential - DC coupled
23. No. of Output Channels	16 Single Ended - DC coupled
24. Mating Connectors	62-pin "D", Quantity 2, Input and Bypass 44-pin "D", Quantity 1, Output
25. Weight	1.5 lbs., (0.68 kg.)

Ordering Information

8 or 16 Channels

VM16FFFA-8-Filter Type and fc

e.g. D61L4B-0.10 Hz
D68L8B-100 kHz
D74H4B-96.0 kHz
D78L8L-75 Hz

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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