FREQUENCY DEVICES™, INC.

Model VX8PFFA

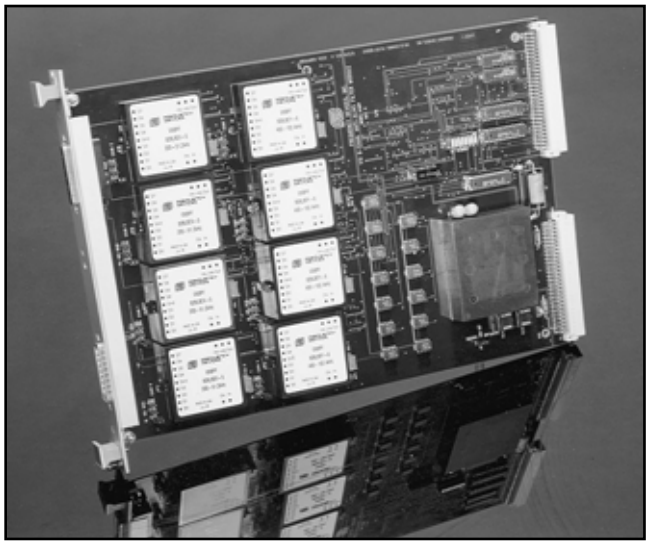
Programmable Filter Selectable Gain VXI Board

8-Channel

Description

Frequency Devices Model VX8PFFA, is a single width, C-sized Filter/Amplifier, VXI signal conditioning module. Each instrument offers 8-channels of 4- or 8-pole, frequency programmable filters with jumper select signal gain of 1, 10, 100, 1,000. Filters achieve a -100 dB attenuation floor, sufficient for 16-bit A/D's in any one of five standard factory-set tuning ranges or 8-bit custom ranges from 1.0 Hz to 102.4 kHz. Each channel includes differential or single-ended input and buffered output with channel-to-channel crosstalk typically below -96 dB.

Users can select from high-pass or low-pass filters or can externally cascade high- and low-pass filters into band-pass configurations. Conforming to system-integration standards of VXIplug & play System Alliance, the VX8PFFA will integrate into any WIN (VTL 3.0) and GWIN (VTL 3.0) VXI test or data-acquisition system.



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	824
8-pole	828

HIGH-PASS FILTER OPTIONS

4-pole	824
8-pole	828

BAND-PASS FILTER OPTIONS

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

BAND-REJECT (NOTCH) FILTER OPTIONS

4-pole pair	828BR

Ordering Information

Channels 1, 2, 3, & 4 — Channels 5, 6, 7, & 8

VX8PFFA-828H8E-2/828L8E-6

Note: See 824 and 828 specification sheets for available filter models and tuning range

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Programmable Filter
Selectable Gain
VXI Board

Specifications

(@ 25°C and rated Power Input)

Analog Input

1. Number of Channels	8-channels/"C" size VXI slot
2. Input Range	+/-10V pk. linear
3. Maximum Input	50V pk. without damage
4. Impedance	Single-ended, jumper selectable - 1 MΩ//47 pF Differential, jumper selectable - 1 MΩ//47 pF
5. Common Mode Rejection	70 dB min. @ 60 Hz

Analog Output

6. Impedance	10Ω max., buffered output
7. Linear Operating Range	+/-10V pk.
8. Maximum Current	+/-2 mA
9. Offset Voltage	2 mV typ. trimmable to zero
10. Short Circuit Protection	Yes
11. Cross Talk	-90 dB typ.@ 100 kHz -96 dB typ. @ 10 kHz

Filter Characteristics

12. See 824 and 828 Series specifications
13. External 8-bit CMOS latches hold frequency data
14. Filter bypass mode

Gain

15. Jumper Selectable Steps	1, 10, 100, 1,000
16. Accuracy	+/-2%

VXI Compliance

17. A16, D16, Slave A16, Register based, Rev. 1.3, supports Dynamic Configuration

Connectors

18. Two, 25-pin “D” type for analog I/O

Power Required	Both supplies fused on board
19. +5V Supply	900 mA typ., 1.2 A max.
20. +24V Supply	450 mA typ., 600 mA max.

Environmental and Mechanical

21. Operating Temperature Range	0°C to +70°C
22. Storage Temperature Range	-25°C to +85°C
23. Dimensions	“C” size VXI, single slot
24. Weight	5 LBs., (2.27 kg.)

Instrument Drivers - VXI plug & play Compliant

25. WIN (VTL 3.0) - Lab Windows/CVI, DLL
26. GWIN (VTL 3.0) - Labview

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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