

VF-1229A

Frequency Generator

Micro Phase Stepper



Features

- Wide output frequency range: 0.1Hz to 30MHz
- High resolution: 0.1Hz over full range
- Phase adjustments to 1 ns resolution
- Sine wave and square wave outputs for each channel
- Up to 4 independent frequency output channels
- External reference capability for precision applications
- Redundant input auto switching capability
- Full remote monitoring/control (Ethernet/RS-232-C/USB)
- User friendly front panel keypad/vacuum fluorescent display

Applications

- Laboratory Systems
- Systems Distribution



Description

The VF-1229A utilizes the latest technological advances in precision frequency synthesizers to provide a multiple output, wide range, high precision frequency reference instrument, capable of delivering frequencies over the range of 0.1Hz up to 30MHz with a resolution of 0.1Hz over the full range.

The unit includes an external reference input to allow extremely high accuracy outputs at precisely the frequency required, together with a front panel indicator to verify “lock” to the external reference. The standard unit includes two independent frequency outputs of any frequency within the range, and provides both sine wave and square wave outputs for each frequency.

An expansion module gives the capability to increase the number of independent frequency outputs up to a total of four frequencies, with sine wave and square wave outputs for each, giving a total of eight outputs.

Additionally, the unit provides a capability to inject phase changes on the output with a resolution of 1 ns. Setup allows either advance or retard of phase.

The unit includes full remote monitoring/control interfaces with the standard Valpey Fisher’s menu system including expanded help on each command, RS-232-C/USB, and Ethernet interfaces with Telnet, and web browser protocols. For local front panel control the unit has an easy to use front panel keypad and high brightness vacuum fluorescent display that allows parameter setting through a menu system, and status monitoring with multiple status screens available on the highly visible display.

The estimated MTBF of the unit is greater than 300,000 hours, but for applications requiring even greater reliability, the unit offers an auto switching input option, allowing two independent references to be connected to the unit.

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Electrical Specifications

Parameter	Condition	Value	Note
Frequency	RF Input	10MHz	
	Output	0.1Hz to 30MHz	
Level	Sine wave Input/Output	1.0V RMS into 50 Ohms +13 dBm \pm 1 dBm	
	Square wave Input	5V TTL	
Harmonic Distortion		< -40 dB max	
Non-Harmonic Signals		< -80 dB max	
Load Impedance		50 Ohms	
Isolation		> 80 dB	
Phase Noise (SSB) dBc/Hz	10 Hz	-95	@ 10MHz
	100 Hz	-125	
	1 kHz	-148	
	10 kHz	-162	
Alarm Output	Non-alarm condition Connector	Relay energized (fail safe) 9 pin D-male	Summary alarm indicates failure of any output signal
Connectors	Output	BNC	
Front Panel Display	Indicators Power (connected) Alarm (output failure) Lock (input signal indicator)	Green LED Red LED Green LED	

Environmental and Physical

Parameter	Specification
Operating Temperature	0°C to +55°C
Storage Temperature	-20°C to +85°C
Relative Humidity	0-95%, non-condensing
Power Requirements	AC Input Voltage: 90-264V, <10W DC Input (optional): 18-72V
Weight	Unit: <10 lbs.

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Rear View



1U (1.752 inches) x 19 inches x 12 inches

How to order:

VF-1229A

Available Options

Option	Description
VF-ADOP	Additional outputs (total 4)
VF-DCPS	DC power supply