



FEATURES

- 10 Hz to 4 kHz Input Response
- 2048 Point FFT
- Autotrack-Autoranging
- 10 Hz Resolution (5 Hz Bin)
- Digital Frequency/Amplitude Display
- RS-232C Data Output Option

DESCRIPTION

The Model 642A VFT Display is a state-of-the-art Fast Fourier Transform spectrum analyzer capable of displaying, in real time and with high resolution, audio spectrums occurring over a 75 dB dynamic range. Though useful for other applications, the Model 642A is particularly designed for optimum performance and ease of operation in analyzing voice-frequency-telegraphy signals to determine channel activity and required demodulator parameters.

The Model 642A can display the entire 4 kHz input band to provide a quick visual representation of overall VFT activity. The operator can then zoom in on any selected 500 Hz portion of the band. Positioning a cursor on a signal of interest yields a digital display of frequency or amplitude. A second cursor can be activated to achieve a digital display of the frequency or amplitude difference of two signals. In the autotrack mode, the cursor seeks and tracks the peak of a spectral line. An autoranging digitally controlled input attenuator corrects for input amplitude variations. True energy averaging of the displayed spectrum is adjustable from one to 999 frames.

This unit is packaged in a 3-1/2 inches high by 20 inches deep half-rack chassis. A rack adapter is required for mounting the unit in a standard EIA rack. The unit is mechanically designed to meet exceptional EMI/RFI requirements. RS-232C data output and X, Y, Z outputs are optionally available.

SPECIFICATIONS

Bandwidth	10Hz to 4 kHz
Input Impedance	10 kilohms, nominal, unbalanced
Amplitude Response	+/-1.5 dB
Maximum Input Level	10 volts peak
Input Sampling Rate	10.24 kHz
FFT Size	2048 real points
Bin Size	5 Hz
Resolution	10 Hz
FFT Window Duration	200 ms
Display Characteristic	Logarithmic - 5, 10, and 20 dB/cm, selectable
Log/Linear Conformance	0.1 dB, typical
Instantaneous Dynamic Range	75 dB, nominal
Sidelobe Level	No visible sidelobes
Spectrum Averaging	True energy, one to 999 frames, noise effective
Bandwidth in Zoom Mode	500 Hz

Input Attenuator Range	75.5 dB, auto ranging
Alias Rejection	70 dB, minimum
Display Refresh Rate	40 updates/second, nominal
Connectors (Rear panel)	BNC power
Controls (Front Panel)	Push buttons for cursor UP, DOWN, and FAST, and for MODE, ZOOM, HOLD and AMPT. Power
Indicator CRT	8 character LED alphanumeric Electrostatic 2-1/8" x 2-1/2"
Power	115/230 Vac, 47 to 420 Hz, 24 W
Temperature - Operating Style	0° to 50° C Half-rack chassis - 3-1/2 inches high by 20 inches deep EIA Rack Adapter available
Weight	12 lbs.

Specifications are subject to change without notice.

ORDERING INFORMATION

A Standard Model 642A VFT Display is a manually controlled unit. Data output via an RS-232C computer interface and X, Y, Z outputs are optionally available. A rack adapter must be used to mount single units. When ordering, please specify:

Model 642A	VFT Display
Option I21	RS-232C Interface (Data Output)

Option G04	X, Y, Z Outputs
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Rack Mounting: Single units of the Model 642A VFT Display must be mounted using a Model 697-2 Rack Adapter. For side by side installation, two units can be fastened together and mounted as a single full-rack unit.

697-2	Rack Adapter, single units
Option H03	Solid Covers

Option H04	Perforated Covers
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WARRANTY

All of Reaction Instruments' equipment is warranted for one year, except for damage caused by accident or misuse, provided the equipment is returned for repair to the plant in Herndon, VA

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