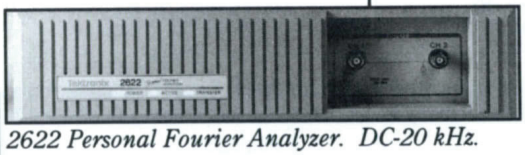
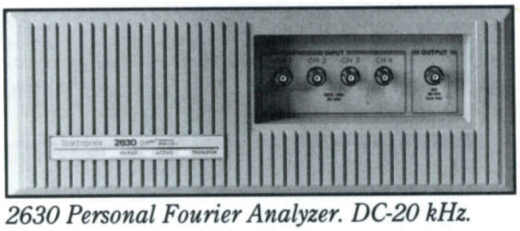
Advanced Analysis of Analog Signals in the Time and Frequency Domains, from dc to 200 kHz.

2622/2630
NEW 2641/ *NEW* 2642

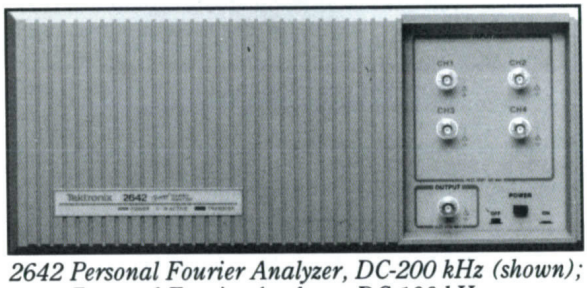
- *Real time Spectrum, Network (Frequency Response), and Waveform Analysis*
- *Complete Modal System for Structural Analysis*
- *Accessory Software for Control Systems Analysis, Production Tests, 1/3 Octave Analysis, Spectral Maps, Swept Sine Measurements, Waveform Math, and More*
- *Easy-to-Learn Pull-Down Menus*
- *Up To Four Input Channels*
- *Optional Built-in Signal Generator with Periodic, Random, and Arbitrary Analog Signal Generation*



2622 Personal Fourier Analyzer. DC-20 kHz.



2630 Personal Fourier Analyzer. DC-20 kHz.



2642 Personal Fourier Analyzer, DC-200 kHz (shown); 2641 Personal Fourier Analyzer, DC-100 kHz.

PERSONAL FOURIER ANALYZERS

PC INTEGRATED

Personal Fourier Analyzers from Tektronix provide the most advanced architecture in benchtop instrumentation available today. From their inception, Personal Fourier Analyzers have been designed to carefully integrate the advancing technology of personal computers with the precision and speed of dedicated measurement hardware. The result is a continuously evolving, high-quality measurement system dedicated to the analysis of analog signals and the properties they represent.

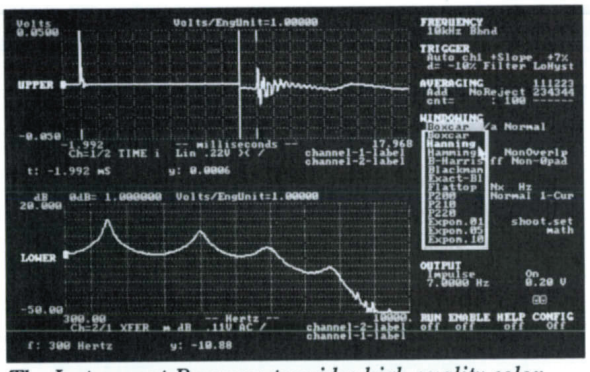
Within each Tek Personal Fourier Analyzer is a combination of precision signal-acquisition hardware and RAM-based microprocessors specifically designed for high-performance signal processing. Connected to a common PC, the Personal Fourier Analyzer's internal processors have access to the PC's display, I/O ports, mass storage, and keyboard. In short, the PC becomes the terminal for a powerful Fourier analysis system.

FLEXIBLE

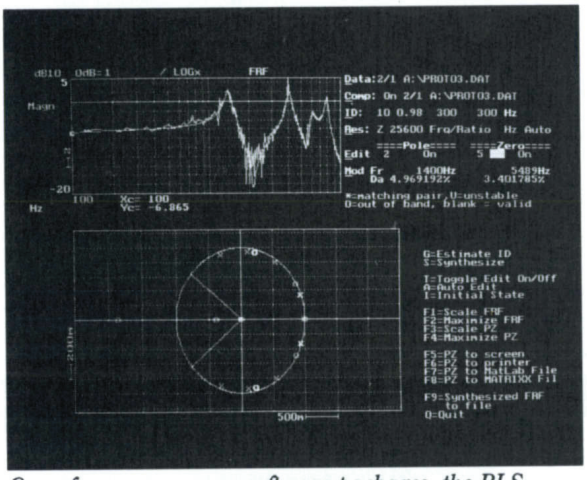
The Instrument Program (IP) supplied with the Personal Fourier Analyzer is the critical link between the analyzer and the PC. When executed from the PC, all of the Personal Fourier Analyzer's instructions are down loaded into the analyzer's internal RAM, providing the latest features and capabilities. The IP then uses the PC's display to generate the Personal Fourier Analyzer's user interface – complete with high resolution graphics and easy-to-learn pull-down menus.

From the keyboard, or using a mouse, you can access a wide variety of analysis functions and data presentations. Standard functions include:

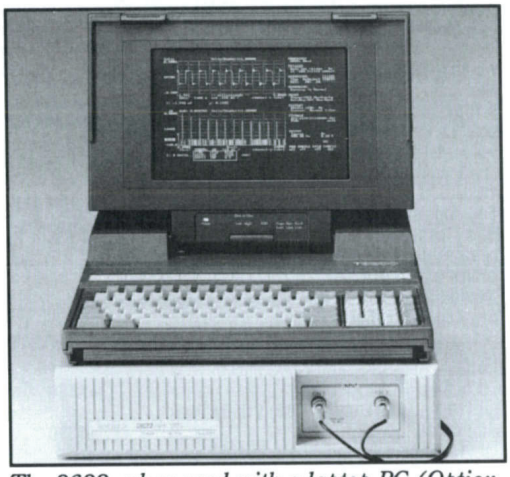
- Time record (waveform)
- Orbits (lissajous)
- Auto- and cross-correlation
- Power spectrum for each channel
- Frequency response functions between any two channels
- Impulse response
- Real, imaginary, magnitude, phase, and Nyquist displays
- Advanced data cursors



The Instrument Program provides high-quality color graphics and easy-to-learn pull-down menus for data analysis and acquisition control.



One of many accessory software packages, the RLS System Identification software produces pole/zero system models from measured stimulus/response data.



The 2622, when used with a laptop PC (Option 20), becomes a lightweight system that easily travels with you.

SELECTION GUIDE

	2622	2630	2641	2642
Frequency Range	20 kHz	20 kHz	100 kHz	200 kHz
Max Input Chan.	2	4	4	4
Max Realtime BW	5 kHz	10 kHz	10 kHz	10 kHz
Dynamic Range	75 dB	75 dB	75 dB	75 dB
Channel Match	±0.2 dB, ±0.5 deg	±0.2 dB, ±0.5 deg	±0.075 dB*, ±0.5 deg	±0.075 dB*, ±0.5 deg
Spectral Lines	25 to 800	25 to 1600	20 to 1600	25 to 1600
Zoom	Opt. 2H	Opt. 2H, 3H	Opt. 2H, 3H	Opt. 2H, 3H
Signal Generator	–	Opt. 4H	Opt. 4H	Opt. 4H
Digital Rec/Playback	–	Opt. 5H	–	–
Weight	12 lb. (5.5 kg)	17 lb (7.7 kg)	26 lb (11.8 kg)	26 lb (11.8 kg)
Price Begins At:	**$6,950**	**$10,750** (2-Ch)	**$14,500** (2-Ch)	**$19,500** (2-Ch)

** (dc – 50 kHz)*

ADVANCED SOLUTIONS

In addition to the Instrument Program, optional accessory programs extend the capabilities of the Personal Fourier Analyzer – providing everything from advanced tools to complete solutions for a variety of applications.

Production Test Automation

The Production Test Manager is a series of programs designed to dramatically reduce the development time for creating automated production tests using Personal Fourier Analyzers. Using the LIMITS program, test limits can be defined quickly using a table of values, previously measured data, or rubber-band style graphics. Other routines provide failure report generation, results archiving, multiple limit checks for quality sorting, a simple pass/fail operator interface, and many more standard functions. Executed individually or included in larger programs, these routines can replace hundreds of lines of program code saving valuable time and money.

Control System Analysis

The optional RLS System Identification program (shown in photo on previous page) analyzes time domain stimulus/response data to produce system models expressed as poles and zeros in either the *S* or *Z* planes. For further analysis, the pole/zero models can be passed on to powerful system development programs such as PC-MATLAB™.

For measurement conditions requiring optimum measurement signal-to-noise, the optional Swept Sine program can be used with a Personal Fourier Analyzer's signal generator to provide classic swept sine testing.

Acoustics

When monitoring acoustic signals, the optional Third Octave program provides 1/3 octave analysis of up to four signals simultaneously.

Modal Analysis

For advanced structural analysis, the 2600MS Modal Analysis Solution provides a complete, turn-key system including PC, 2630, STAR*MODAL* modal analysis software, and the TekSTAR Modal Acquisition Manager for attaching point and direction to data files. (For information on hammer kits and transducers, see page 78.)

General Analysis

For general purpose waveform manipulation, the optional Waveform Math program allows time and frequency domain data to be modified using 17 standard and advanced math operators.

Digital Record/Playback

If you need to capture an event or series of events for later analysis, the 2630's Option 5H, Digital Record/Playback streams digitized input signals directly to the host PC's RAM, RAM disc, or hard disk. Once recorded, the data can be sent back to the 2630 for analysis. Transfer rates up to 51.2 kS/s are achievable.

2600MS Modal Analysis Solution

ORDERING INFORMATION

2622 (2-Ch Standard)	**$6,950**
2630 (2-Ch Standard)	**$10,750**
2641 (2-Ch Standard)	**$14,500**
2642 (2-Ch Standard)	**$19,500**

For a complete list of options, accessories, and optional software programs, contact your Tektronix sales representative or call (408) 374-6464 (in the U.S., call 1-800-234-1256)

INSTRUMENT OPTIONS

2622:	
Opt. 2H – 2-Ch Zoom	**+$1,000**
2630:	
Opt. 1H – 4 Input Channels	**+$3,950**
Opt. 2H – 2-Ch Zoom	**+$1,000**
Opt. 3H – 4-Ch Zoom	**+$2,000**
Opt. 4H – Signal Generator	**+$2,400**
Opt. 5H – Dig Rec/Playback	**+$3,150**
2641:	
Opt. 1H – 4 Input Channels	**+$6,000**
Opt. 2H – 2-Ch Zoom	**+$1,000**
Opt. 3H – 4-Ch Zoom	**+$2,000**
Opt. 4H – Signal Generator	**+$3,000**
2642:	
Opt. 1H – 4 Input Channels	**+$8,000**
Opt. 2H – 2-Ch Zoom	**+$1,000**
Opt. 3H – 4-Ch Zoom	**+$2,000**
Opt. 4H – Signal Generator	**+$3,500**

MINIMUM PC REQUIREMENTS

Personal Fourier Analyzers operate with an IBM PC, XT, AT, PS/2 or 100% compatible having the following minimum configuration:
DOS 3.0 or higher,
RAM – 640 kilobytes,
One 3 1/2 or 5 1/4" floppy drive and 20 megabyte Hard Drive,
One RS-232-C serial port,
Intel 8087, 80287, or 80387 Co-processor, Enhanced Graphics Adapter (EGA), Monochrome or color EGA monitor *(Second serial port and mouse recommended).*