STANFORD RESEARCH SYSTEMS

SR760

The Stanford Research Systems SR760 is a single-channel FFT spectrum analyzer with a frequency range extending from 476 µHz to 100 kHz and a 90 dB dynamic range. It features a 100 kHz real-time bandwidth, a 3.5-inch MS-DOS compatible floppy disk drive, and comprehensive remote interfaces including GPIB and RS-232. Built for demanding noise, vibration, and electronic measurements, the SR760 provides outstanding performance, high resolution, and extensive analysis capability.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), RS-232, Parallel Printer Port
Display	7-inch monochrome CRT (400H x 250V graphics)

Physical

Power Supply	100/120/220/240 VAC, 50/60 Hz, 60 W
Operating Temperature	0 °C to 50 °C °C
Dimensions (W×H×D)	432 mm × 159 mm × 470 mm mm
Weight	16.3 kg

Frequency

Frequency Range	476 µHz to 100 kHz
Frequency Spans	191 mHz to 100 kHz in a 1-2-5 sequence
Real-Time Bandwidth	100 kHz
FFT Resolution	400 lines
Frequency Accuracy	±25 ppm (0 °C to 50 °C)
Number of Frequency Spans	20
Frequency Temperature Stability	<5 ppm/°C
Frequency Clock Aging	<5 ppm/year

Signal Input

Number of Input Channels	1
Input Coupling	AC or DC
Input Configuration	Single-ended or differential
Input Impedance	1 MΩ, 15 pF
AC Coupling Cutoff Frequency	1 Hz (-3 dB)
Common Mode Rejection Ratio	90 dB @ 1 kHz (for input range < -6 dBV)
Maximum Input Safety Voltage	57 Vp continuous (100 Vp momentary)
Input Noise Floor	-160 dBVrms/√Hz typical (>1 kHz)

Amplitude & Dynamic Range

Full-Scale Input Range	-60 dBV (1 mVp) to +34 dBV (50 Vp) in 2 dB steps
Dynamic Range	90 dB typical (spurious free)
Intermodulation Distortion	< -90 dB (two tones within span, each -6 dB from full scale)
Spurious Responses	< -90 dB full scale (with source or input shielded)
Aliasing Responses	< -90 dB full scale
Absolute Amplitude Accuracy	±0.2 dB (excluding window effects)

Measurement & Processing

Window Functions	Blackman-Harris, Hanning, Flat-Top, Uniform
Measurement Modes	Spectrum, PSD, Octave Analysis
Octave Bandwidth Options	1/3, 1/12 octave
Octave Standards Compliance	ANSI S1.11-1986 Filter Shape
Averaging Modes	RMS, Vector, Peak Hold
Averaging Types	Linear, Exponential, Peak Hold
Number of Averages	1 to 65,536 (or infinite)
Display Units	V, V^2, V^2/Hz, Vrms, $Vrms^2$, Vrms/√Hz, dBV, dBm, dBV/√Hz

Triggering

Trigger Modes	Continuous, Internal, External
External Trigger Input	TTL level, active high or low
Trigger Delay	Up to 65,536 samples (pre- or post-trigger)

Display & Interface

Floppy Disk Drive	3.5-inch MS-DOS compatible, 1.44 MB or 720 KB
Data Export Formats	ASCII, Binary

Power Specifications

AC Voltage Selectable	100 V, 120 V, 220 V, 240 V
AC Frequency Range	50 Hz to 60 Hz

Storage & Memory

Internal Setup Storage	9 configurations
Internal Trace Storage	100 traces (non-volatile)

Inputs & Outputs

Printer Interface	Centronics parallel port (Epson, HP LaserJet, and PostScript compatible)
Video Output Connector	TTL monochrome, 18.2 kHz horizontal, 50 Hz vertical
External Trigger Input Impedance	10 kΩ
External Trigger Level	TTL

Performance

Amplitude Resolution	0.01 dB

Communication

RS-232 Baud Rates	Up to 19.2 kbps
GPIB Capabilities	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0, E2 (IEEE-488.2)

Measurement Functions

Analysis Functions	Harmonic Analysis (up to 20 harmonics), Band Analysis, Limit Testing (Pass/Fail), THD

Marker Functions

Marker Modes	Dual, Track Peak, Next Peak, Band, Noise, 1/X

Signal Acquisition

A/D Converter Resolution	16-bit
A/D Converter Sampling Rate	256 kHz
Anti-Aliasing Filter Type	8-pole, elliptic low-pass

Phase

Phase Accuracy	±1.0° (DC to 50 kHz), ±1.25° (50 kHz to 100 kHz) relative to external trigger

Hardware & Connectivity

Preamp Power Output	±15 VDC at 100 mA (rear panel SRS connector)

Power

Power Consumption	60 W

TECHNOLOGY

FFT (Fast Fourier Transform)

APPLICATIONS

Audio, acoustics, vibration, and noise measurements

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.