

SA1062 spectrum analyzer

Main Features

- Frequency range
- Wide input range +20dBm to -100dBm
- Auto search feature
- Multi-digital sweep
- Excellent TFT color display
- Friendly user interface
- GPIB as standard
- AM/FM demodulation
- Lightweight, portable and rugged construction at 11 kg
- Optional internal pre-amplifier 9 kHz to 2.9 GHz fully synthesized



FEATURES

Frequency Accuracy

The local oscillator system in the SA1062 is fully synthesized thus providing accurate frequency measurements with 1 Hz resolution.

Measurement Limits

This feature allows the setting of an upper and lower limits thus enabling user to identify signal easily.

Wide Signal Measurement Range

The SA1062 can accept input signal between +20dBm and -100dBm while providing protection up to +30Vdc or +26dBm.

Auto Search Measurement

This auto search feature enable user to locate unknown signal with a single button solution.

Color Display

The 6.4-inch TFT color LCD provides a clear, bright, sharp display with a 640 x 480 pixel active display area viewable in high ambient light conditions.

Signal Demodulation

Demodulation of both AM and FM signals allows full testing on a wide range of communications systems. The demodulated signal can be viewed on the screen and is also available on the internal loudspeaker

Information Storage

The spectrum analyzer is fitted with a 3.5 inch FDD (Floppy Disk Drive) and USB interface for storage of information

Interfaces

GP-IB, RS-232 and Printer (PCL5) interfaces are provided as standard. This allows the spectrum analyzer to be integrated into ATE system and the print out of screen displays.

SPECIFICATIONS

Frequency

Frequency range: 9kHz to 2.9GHz

Frequency resolution: 1Hz

Frequency span: 500Hz to 2.9GHz, 0Hz

Span accuracy: $\pm 0.5\%$

Frequency readout accuracy (start, stop, center, marker):

$$\text{Freq.} \times \text{Freq. Ref. Accuracy} + 0.5\% \text{Span} + 50\% \text{RBW}$$

Frequency reference temperature stability: $\pm 1 \text{ ppm}$ (typical)

Resolution bandwidth range: 10Hz to 3MHz in 1, 3, 10 sequence
(with 10Hz resolution bandwidth option)

Video bandwidth range: 10Hz to 3MHz in 1, 3, 10 sequence

Amplitude

Amplitude input range:

+20dBm to -100dBm

Displayed average noise level:

<-116dBm (5MHz to 1.6GHz)

<-110dBm (1.6GHz to 2.2GHz)

<-104dBm (2.2GHz to 2.9GHz)

Digital Medium Frequency Option (RBW 10Hz):

<-128dBm (5MHz to 1.6GHz)

<-122dBm (1.6GHz to 2.2GHz)

<-116dBm (2.2GHz to 2.9GHz)

Maximum safe input

Average continuous power: +26dBm (input attenuator 10 dB)

Maximum DC input voltage: $\pm 30V$

Gain compression: <1dB (-15dBm total power at input mixer)

Input attenuator: 0 to 50dB in 10dB steps

Frequency response: $\pm 2dB$ (1MHz to 2.9GHz)

Resolution bandwidth switching uncertainty: $\pm 1dB$ (relative to 3kHz RBW)

Reference level accuracy: $\pm 1.5dB$ (1MHz to 2.9GHz)

Log scale accuracy: $\pm 1dB$ (0~-50dB to reference level)

Second harmonic distortion:

$\leq -60dBc$ (10MHz to 2.9GHz, -40dBm input, 0dB input attenuation)

Third order inter modulation distortion

$\leq -70dBc$ (10MHz to 2.9GHz, -30dBm input, 10dB input attenuation)

Residual response:

$\leq -75dBm$ (1MHz to 2.9GHz, no input signal, 0 dB input attenuation)

Noise sidebands: -80dBc/Hz @10kHz offset

Sweep

Sweep trigger: Hold, Continuous, Single

Sweep time range: 50ms to 3000s (Span $\geq 1kHz$)

1ms to 200s (Zero span)

Sweep time accuracy: Timebase accuracy+0.5% Sweep time

Inputs/Outputs

Front panel

RF input: Type-N female, 50 Ω

Calibrator output: BNC female, 50 Ω

3.5" Floppy Disk drive: All files are stored in bitmap format.

USB interface (option)

Active probe power

Rear panel

10 MHz REF in/out Shared BNC female, 50?

Output amplitude: 3dBm±2dB

Input amplitude: -5dBm to 10dBm

Output temperature stability: ±1ppm

Aging: ±2ppm

VGA output VGA compatible monitor

Serial interface RS232

25 pin D-sub Parallel interface Printer port only

GPIB connector

General

Power requirements:

220VAC operation 198 to 242 V rms, 0.4A rms max, 47 to 53 Hz.

Weight: 11kg

Dimensions: Depth (420mm)×Width(380mm)×Height(185mm)

Operating temperature:

Supplied Accessories

Operation Manual

AC Power Cord

Calibration cable

Hard Transit Case

Options

Option1 - 10Hz resolution bandwidth

Option2 – USB interface