SA1022 portable spectrum analyzer

- 9 kHz to 3GHz fully synthesized spectrum analyzer
- High measurement accuracy
- Friendly user interface
- Four hours operating time on battery power
- Storage of up to 200 traces and setups
- VGA TFT 6' color LCD
- Easy data transfer to PC
- Rugged construction for field use



OVERVIEW

The SA1022 is a portable and cost effective spectrum analyzer with high performance for signal analysis. The spectrum analyzer can be used to measure spectral purity, analyze demodulation signal and measure specifications such as transmit power, frequency bandwidth, harmonic/spurious, satellite communication uplink/downlink frequency, adjacent channel power, antenna's directivity, sidelobe.

FEATURES

Portable

Weighing just 2.5kg and supporting 4 hour of operation, it is highly suitable for field usage.

Easy operation

It has a good layout with intuitive keys for easy operation.

DSP Technology

Using DSP technology in the IF section, AV022 is able to provide good measurement speed and excellent test performance.

Storage

It is able to provide internal storage of up to 200 measurement data. It can be downloaded into PC using RS232 interface for data management.

Display

The 6-inch TFT color LCD of the SA1022 provides a clear, bright, sharp display with a 640x480pixel active display area viewable in high ambient light conditions.

SPECIFICATIONS

Frequency

Frequency range	9kHz to 3GHz	
Internal 10 MHz frequency reference accuracy		
Aging rate	$\pm 1 \times 10^{-6}$ /year	
Temperature stability	±5×10 ⁻⁶ (0~50°C)	
Frequency reading accuracy		
±(Frequency reading × frequency reference error + span × 5% + RBW × 25%)		
Frequency span		
Range	0Hz, 10kHz~3GHz	
Resolution	1kHz	
Accuracy	±0.5%	
SSB phase noise		
	<-75dBc/Hz (@ 30kHz, 1GHz)	
	<-110dBc/Hz (@1MHz, 1GHz)	
Resolution bandwidths	100Hz to 1 MHz in 1-, 3- steps	
Bandwidth accuracy		
	±25% (1MHz)	
	±10% (<1MHz)	
RBW switching uncertainty <1.2B		
Video bandwidths	10Hz to 1MHz in 1-, 3-step	
Amplitude		
Amplitude range	+20dBm~noise level	
Maximum permissible input		
	Continuous +27dBm	
	DC Level ±20V	
Displayed average noise floor		

100kHz~500kHz	< -95dBm (typical -100dBm)
>500kHz	<-107dBm (typical -115dBm)

Absolute amplitude accuracy

 ± 3 dB (reference level to below reference level 60 dB, typical ± 1 dB)

Spurious	< -45dBc
Residual spurious	<-85dBm
Frequency response	±1.5dB

Inputs/Outputs

Input attenuator	0 to 30dB in10dB step
Input interface	Type N female RF connector
Digital Interface	RS232

General

Power consumption

<15W (non-include charging battery)

<28W (include charging the battery)

Operating time with fully-charged battery

4 hours

MTBF >3000 hours

Weight 2.5kg

Dimensions 195mm×308mm×134mm

Approximately (W \times H \times D)

Environmental GJB3947-2000 three-class equipment standard