

# 1GHz Spectrum Analyser



## Description

The Spectrum Analyzer is a digitally synthesized, easy-to-use RF measurement instrument with a frequency range up to 1GHz. It uses a state-of-the-art design with a phased-locked RF system that combines measurement quality and performance with an affordable price. For flexibility and versatility, the product has a number of options and optional accessories such as a factory installed tracking generator or the extensive probe kit options. The product is also designed for rugged use with a 1-watt input protection. The small size and light weight of the product make it easy to carry and stow anywhere.

The product includes free software (Windows 2000/XP compatible) for displaying, saving and printing results via the standard RS232 interface. Optional software is also available for full PC remote control at additional cost.

All these functions and features make the product an affordable, expandable, and high quality instrument suitable for a variety of applications.

## Features

- Frequency range : 150kHz ~ 1GHz
- Fully digital phase locked loop technique design
- High frequency stability :  $\pm 10$ ppm
- High resolution of span to measure the more detailed signal : Zero, 2kHz to 100MHz/div
- RBW : 3k, 30k, 220k, 4MHz
- High input protection level : +30dBm, 25V DC
- Reference level range : -30dBm to +20dBm
- Good noise floor performance : -95dBm @30kHz, -100dBm Typical @220kHz RBW
- Two markers for absolute and relative measurement
- Functions : Max. Hold, Average(2 ~ 32 Traces), Freeze, Peak Search, Marker to Centre Functions
- 9 Memories of Save/Recall
- RS-232C Interface and Software to get Trace from 72-6696 to PC
- Options : Tracking Generator, Power Meter, Remote Control Software

## Specifications

Frequency	
Frequency Range	150kHz to 1GHz
Aging Rate	$\pm 10$ ppm, 0~50°C, $\pm 2$ ppm/yr
Span Range	Zero, 2kHz to 100MHz/div in 1-2-5 sequence
Phase Noise	-77dBc/Hz @ 1GHz 30kHz offset
Frequency Resolution	1kHz C.F. entry, 40Hz sweep resolution at 2kHz/div
Frequency Display	6-1/2 digit setting
Frequency Control	Digital phase locked
Resolution Bandwidth	
RBW Range	3kHz, 30kHz, 220kHz, 4MHz
RBW Accuracy	15%
Video Bandwidth Range	1.6kHz/90kHz couple with RBW
Amplitude	
Measurement Range	-100dBm to +20dBm
Overload Protection	+30dBm continuous, $\pm 25$ V DC
Reference Level Range	-30dBm to +20dBm



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Amplitude Display Range	75dB
Amplitude Accuracy	±1.5dB typical @ 0dBm, 80MHz
Frequency Flatness	±1.5dB over 100MHz, ±2.5dB typical over entire band/±3dB :150kHz to 10MHz
Amplitude Level Linearity	±1.5dB over 70dB
<b>Dynamic Range</b>	
Average Noise Floor	-95dBm @30kHz RBW, -100dBm typical /-75dBm: 150kHz to 10MHz
Third Inter-Modulation	<-70dBc, @-40dBm input, 2tones, 2MHz apart/ <-45dBc:150kHz to 10MHz
Harmonic Distortion	<-40dBc, RF input < selected reference
Non-Harmonic Spurious	<-60dBc typical down from reference level, average, 5MHz/div
<b>Display System</b>	
Display Device	CRT Display, 8 × 10 graticule, 6-inch waveform screen LCD Display, 4 line × 20 character data screen
Display Function	Center Frequency Control, Bandwidth, Reference Level, Span Range, Amplitude
<b>Functions</b>	
Marker Mode	Absolute, relative, PK->marker, marker->center
Number of Markers	2
Marker Resolution	0.1dB, 1kHz
Marker Accuracy	0.1dB amplitude accuracy
Memory	10 memorise of save/recall
Trace	Max. hold, average(2~32 traces), freeze(Hold)
Setup	Access parameters
Demodulator	WB FM, 120kHz deviation MB FM, 75kHz deviation NB FM, 30kHz deviation AM Outputs : Internal speaker, 3.5mm stereo jack, wired for mono operation
Calibrate Signal	80MHz, -30dBm
<b>Interface</b>	
RS-232C standard & remote display software	
<b>Power Source</b>	
AC 100V/120V/220V/230V ±10%, 50/60Hz	
<b>Dimensions &amp; weight</b>	
310mm(W) × 150mm(H) × 455mm(D), Approx. 8.5kg	

## Part Number Table

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