

Hand-Held 2GHz RF Signal Strength Analyzer



3201

- Hand-Held and battery operated
- 100kHz to 2060MHz measurement range
- Built-in 2GHz frequency counter
- Detects Wide band and Narrow band FM, AM and Single Sideband Signals
- Phase lock loop for precise frequency tuning
- RS-232 interface
- Up to 160 channels may be scanned and displayed
- Audio output with built-in speaker
- Detachable antenna included
- Back-lit display
- All functions are menu selected
- Instrument setups & display data may be stored in memory
- Includes software and RS-232 Cable
- Serial or parallel interface
- Hard copy printer output of spectrum and bar graph displays

SPECIFICATIONS

Frequency

Frequency Range: 100kHz to 2060MHz
Frequency Step: 5kHz to 9995kHz in multiples of 5kHz or 6.25kHz
Ref. Oscillator Accuracy: ± 3 PPM
Frequency Marker Accuracy: ± 25 PPM
Frequency Measurements: Narrow Band FM, Wide Band FM, AM and Single side band

Input

Input Impedance: 50 Ω
Maximum Input Volts: 5V RMS (+270dBm)
Measurement Units: dBmV, dB μ V, dBm
Attenuation: 0dB or -10dB internal; 0dB to 60dB with external Attenuator

Level Measurement

Narrow Band FM

Level Measurement Range: -117dBm to -67dBm (1MHz to 2060MHz)
Resolution: ± 0.5 dB; **Accuracy:** ± 3 dB
Bandwidth: 12.5kHz

Wide Band FM, AM & SSB

Level Measurement Range: -108dBm to -58dBm (10MHz to 2060MHz)
Resolution: ± 0.5 dB; **Accuracy:** ± 3 dB
Bandwidth: Wide band FM: Approx. 180kHz
 AM and SSB: Approx. 2.4kHz
BFO Frequency Range: ± 1.5 kHz
Reception Sensitivity: 0 to 6dB μ V EMF with supplied antenna
Antenna Reception S/N Ratio: N-FM: 10 dB; W-FM: 12 dB

Display

Display Modes: Spectrum, Bar graph, Frequency counter
Spectrum Display: Displays 160 channels
Bar Graph Displays: Multi channel (2, 5, 10, 20, 40, 80, 160 bar graphs per display), Single Channel and 2 Channel difference
Sweep Modes: Single, Normal, Free run
Spurious Signals: (internally generated) -35dBc for W-FM -45dBc for N-FM (typical below full scale signal level)

Scan Mode

Manual, Channel (memory scan) and Search scan
Scan Rate: 12.5 Ch./sec.

Memory

Data Memory: Stores 10 displays of up to 160 CH per display
Setup Memory: Stores 10 setups for each scan mode

Frequency Counter

Bandwidth: 9MHz to 2060MHz
Resolution: 1kHz
Accuracy: 50PPM ± 1 count
Input Impedance: 50 Ω
Max Input Volts: 5V RMS
Response Time: 0.512 Sec.
Input Sensitivity:
 9MHz to 2060MHz: 120mV
 20MHz to 1500MHz: 50mV
 2MHz to 2060MHz: 500mV
Data Memory: Stores 10 Readings

Miscellaneous

LCD: 192 x 192 Pixels, Light green
Back Light: LED. Back light will shut off 5 seconds after the last key depression
Interfaces: Std RS-232 interface with female 8 pin mini Din connector. Baud Rates of 1200, 2400, 4800 or 9600 BPS are menu selected. The software supplied is a Windows®-based program, which runs under Windows 95/98/ME/XP/2000.
Auto Power Off: 5, 10, 20 or 30 minutes after the last key depression—user selected.
Audio Output: 120mW into a 8 Ω Speaker
Power Requirements: (6) AA NiCd or Alkaline Batteries, 12 volt car adapter or 11V to 16V 500 mA Max AC to DC adapter

General Specifications

Operating Temperature: 0°C to 40°C
Relative Humidity: 35% to 85%
Storage Temperature: -10 to 50°C
Size: 9.5" H x 4.0" W x 1.8" D
Weight: 1.4 lb.
Supplied Accessories: Manual, (6) 1.5V AA NiCd Batteries, Detachable 9" whip antenna, RS-232 Cable, Carrying case, Earphone, Carrying strap and Software, Vehicle power adapter, AC/DC converter.

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X10 Attenuator
Extends input range

Antenna or Coax Input

Volume Control

Earphone Jack
For noisy environment operations

Belt Clip
Hands-free transport

Input for Frequency Counter
Built-in 9MHz to 2,060MHz

LCD Display
Bright, easy-to-read, 192 x 192 pixels, up to 160 channels

Audio Speaker

Function Keys
Fast entry of preset or custom values and functions

Dial Knob
Fast one-hand selection of menu items and freq. marker

Numeric Input Keys (+ or -)
For entering 8 digit freq. values

DC Input Jack
Accepts AC/DC adaptor, car adaptors; and battery charger (included)

On-Off Power
Auto-power off saves batteries

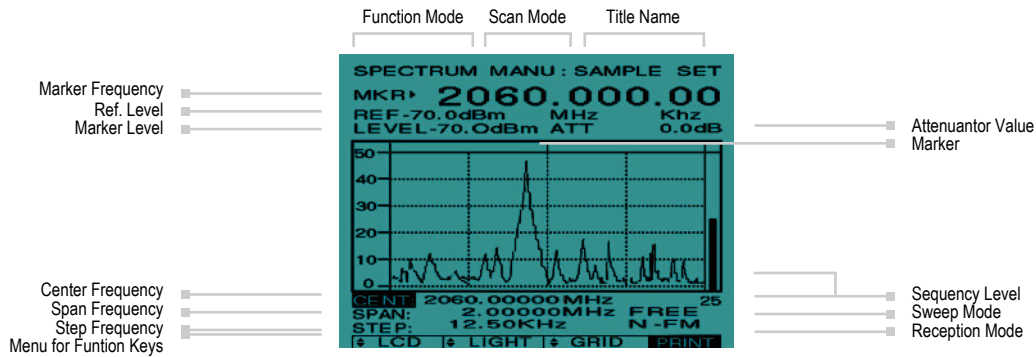
Frequency keys
Marker or Menu edit

LCD Key
Varies contrast for easy viewing

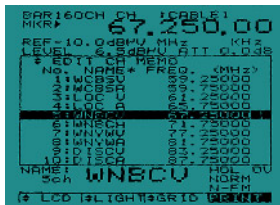
RS-232C Connector
Printer or computer connection (software included)



DISPLAY

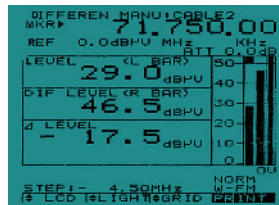


SPECTRUM ANALYZER DISPLAY



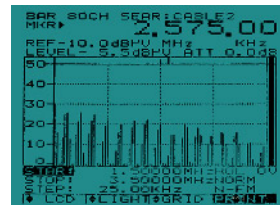
CHANNEL EDIT MODE

Up to 1600 channels may be stored in any order, then scanned and identified by 9-digit freq. and 5-letter title. Useful for Cable TV, Cellular phone, and other field applications where repetitive measurements need to be made.



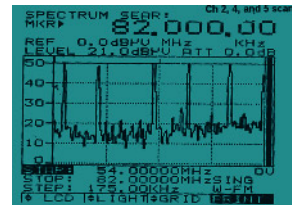
TWO CHANNEL DIFFERENCE MODE

This Mode displays 2 carrier levels and their difference. A key application verifies that a TV or Cable channel's video and audio carriers are within specifications.



BARGRAPH DISPLAY

This feature makes level readings easy and "cleans up" each frequency (compared to a spectrum display). Patterns may be readily seen, for example: this display of computer monitor radiation.



SPECTRUM DISPLAY

This Mode scans and displays 160 channels. Squelch level may be set above or below carrier level in order to pause scan and detect the signal. Detection modes are AM, NFM, WFM and SSB.