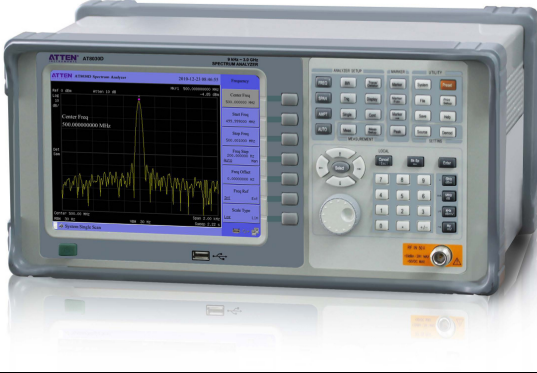


Digital Spectrum Analyzer

AT8030D

9kHz~3GHz



- Frequency range: 9kHz~3GHz
- Resolution Bandwidth: 5Hz~3MHz in 1 to 10 steps
- Various measuring functions: frequency measurement, AM/FM demodulation, ACP measurement, chromatogram etc
- Multi-windows modes, Spectrum zooming function
- Display as many as of 5 track lines
- 8.4" LED back-lit display, English operation menu
- Interfaces: USB, LAN, VGA, GPIB, RS232
- Compact structure; metal enclosure

Technical Specifications

AT8030D

FREQUENCY

Frequency Range

9kHz ~ 3GHz

Resolution

1Hz

Frequency Readout Accuracy

$\pm(\text{frequency readout} \times \text{reference frequency accuracy} + 1\% \times \text{scan width} + 10\% \times \text{RBW} + 0.5 \times [\text{scan width} / (\text{scan point}-1)] + 1\text{Hz})$

FREQUENCY REFERENCE (10MHz, REF)

Ageing

< 2ppm / year

Temperature Drift

<2ppm (15°C – 38°C)

RBW

Range (<1kHz optional)

5Hz~500kHz(in 1 to 10 steps),1MHz, 3MHz

Selectivity (60dB/3dB bandwidth ratio)

<5:1 rated value (digital implementation, near to Gaussian shape)

Accuracy

<5%

Video bandwidth (VBW)

10Hz to 3MHz, in 1-3-10 steps

AT8030D Spectrum analyzer based on the same platform as our earlier model AT6030D, breaks new ground in the mid-range spectrum analyzer offers unmatched performance for the lowest cost. The AT8030D gives our customers the performance they need without having to spend extra money on test instruments that are costly and provide more performance than required. It is perfectly suited to the mobile communication bands (CDMA2000, WCDMA)\RF system\broadcast\EMI/EMC test etc.

AT8030D is a 3GHz spectrum analyzer is lightweight with a large 8.4" color LCD display. It includes a fast processor and a large memory capable of storing large data of screen traces and operational states.

The AT8030D's 50-ohm input can accept signals between +33 dBm and -124dBm while providing protection up to 50 VDC. Its user interface is designed to simplify many of the measurements required for the evaluation of today's sophisticated communications systems.

You can enhance the instrument with options including, Tracking Generator, GPIB, LAN and more.



Features

- Measures wide frequency : 9 kHz ~ 3.0 GHz
- Superior Resolution : Minimum 1 Hz
- Compact and lightweight package
- Pre Amp as standard
- Wide Input Dynamic Range : -130 dBm ~ 20 dBm
- Easy and simple Key Buttons
- CDMA measurement functions : ACPR, ACLR, OBW, Channel Power
- Resolution Bandwidth (RBW) : 1 kHz ~ 3 MHz(1-3 Step), 9 kHz, 120 kHz
- Simple usage and convenience 8 Markers, Trace function, Trigger function
- Supports various types of convenient interface
- GPIB(option), RS-232C(option), Printer(supports nearly all types of Printer)
- REF in, REF out functions
- Large capacity internal memory for storing measured data
- Stores measured data up to 900 events
- Stores Setup data up to 3,000 events
- USB Host Port
- Supports USB Printer
- Stores data and applied Image file(GIF) into USB Flash memory
- Ethernet Port and Software(option) for Internet remote control

PHASE NOISE

Deviation (10kHz : -85dBc/Hz)

Deviation (1MHz : -100bBc/Hz) <typical value> #

Attention: typical f=5000MHz, RBW<1kHz, sampling detection, path line average number ≥10

DANL(10Hz resolution bandwidth)

100MHz -124 dBm

500MHz -122 dBm

900MHz -120 dBm

1.2 GHz -126 dBm

1.8 GHz -123 dBm

2.2 GHz -121 dBm

2.6 GHz -120 dBm

3 GHz -118 dBm

SCANNING TIME

Scan width range (100Hz ≤ SPAN ≤3GHz)	10ms-3000s
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Scan Modes	Continuous, single
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FREQUENCY COUNTER

Counter resolution	1Hz, 10Hz, 100Hz, 1kHz
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Counter Uncertainty	± (frequency reading × reference frequency accuracy + counter resolution)
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AMPLITUDE ACCURACY(20 °C ~ 30 °C)

Comprehensive Amplitude	Input single range 0dB – 50dbM at ±1.5dB
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Accuracy	90%
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AMPLITUDE

Maximum input level	+33dBm
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Maximum DC input voltage	50Vdc
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Input attenuator range	0 - 50dB
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1dB compression point	+13dBm
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SPURIOUS AND RESIDUAL RESPONSE

TOI (third order inter-modulation distortion)	>30MHz at +10dBm
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Second Harmonic Distortion	+40dBm
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Input relative spurious signal	<-60dBc
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Residual Response	<-85dBm
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INPUT & OUTPUT

RF input	N-type negative (50Ω)
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USB	USB2.0 (host); USB2.0 (device)
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LAN	10/100 Base-T, connector RJ-45
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Serial Interfac	9 pins D-SUB (positive), RS-232
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Reference input or output	10MHz, BNC (negative)
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Input power	0dBm to +11dBm
Output power	0dBm±2dB
VGA (optional)	800×600, 60Hz - 15 pins D-SUB (negative)
GPIB (optional)	IEEE-488 bus connector

General Specifications

Display	8.4 inch TFT-LCD (LED backlight brightness adjustable)
Internal data storage	256MB to User Mode and Path
Max weight	7.6kg
Size	390(W) × 182(H) × 230(D)mm
Operating Temperature	0°C to 45°C
Storage Temperature	-25 °C to +70°C
Power Supply	Input voltage range : 220VAC ±15%
	AC Frequency range : 40Hz to 60Hz
	Power Consumption : Max 60W

ACCESSORIES

• User's Manual	- 1	• BNC-N Adapter	- 1
• USB cable	- 1	• LAN cable	- 1
• Power cord	- 1	• RS-232(DB9) Cable	- 1
• 3G Test Antenna	- 1	• GPIB remote control interface	- 1
• BNC Coaxial cable	- 1	• VGA output interface	- 1
• N Coaxial cable	- 1		

Ordering Information

- AT8030D Spectrum Analyzer
9kHz to 3 GHz

Reflecting Atten's commitment to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification. We pursue a policy of continuous development and product improvement. Thus the specifications and picture in this Spec sheet may be changed to make product improvements at any time and without notice.