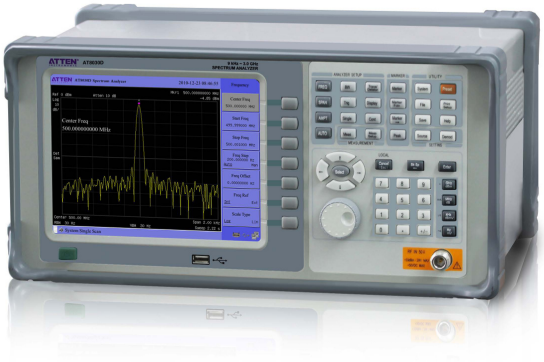
Digital Spectrum Analyzer

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

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.

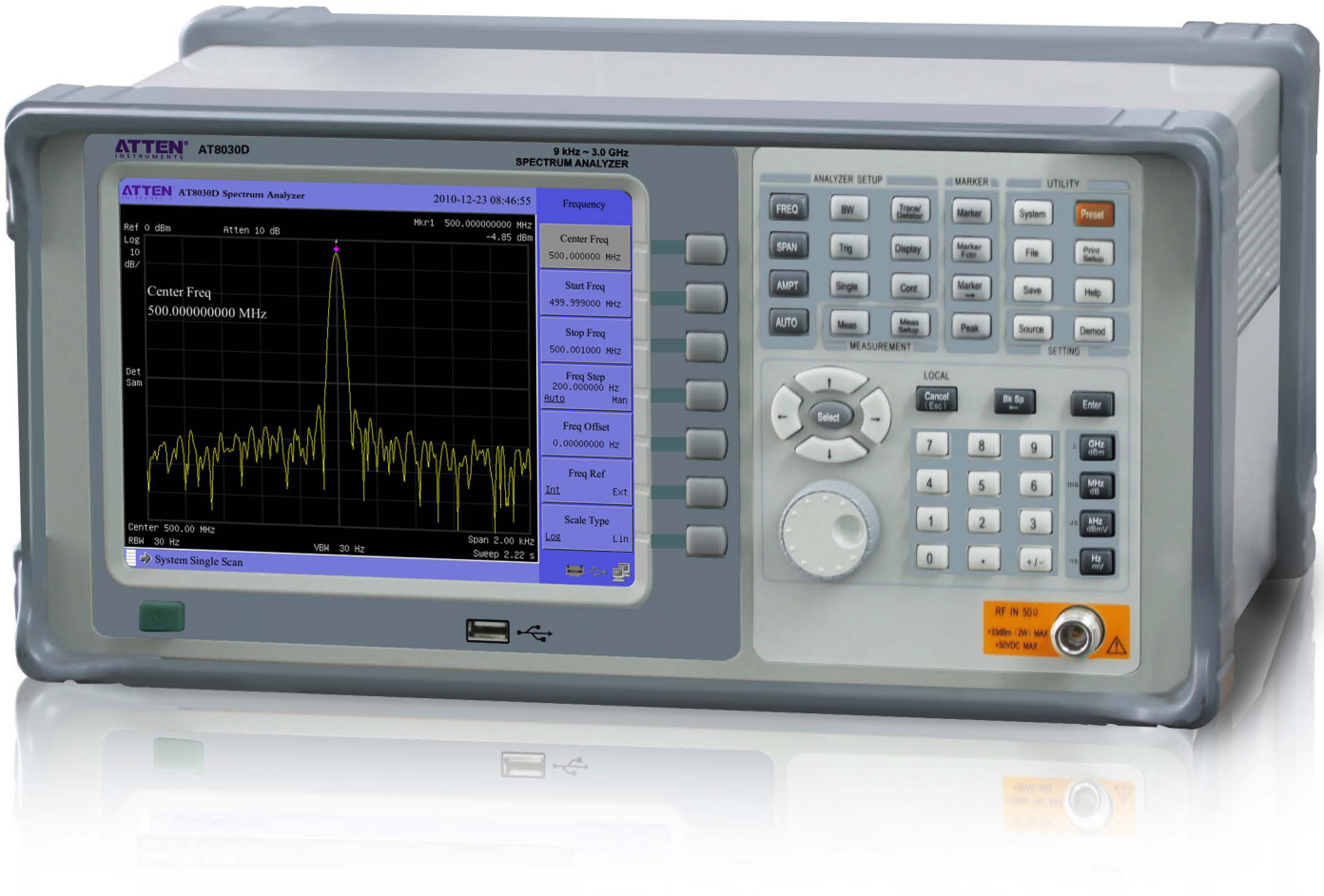
AT8030D is a 3GHz spectrum analyzer is lightweight with a large 8.4” color LCD display. It includes a fast processor and a large memory capable of storing large data of screen traces and operational states.

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.

Technical Specifications

	AT8030D
FREQUENCY	
Frequency Range	9kHz ~ 3GHz
Resolution	1Hz
Frequency Readout Accuracy	±(frequency readout × reference frequency accuracy +1% × scan width +10% × RBW + 0.5 × [scan width / (scan point-1)]+1Hz)
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



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 lir 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
Scan Modes	Continuous, single

FREQUENCY COUNTER	
Counter resolution	1Hz, 10Hz, 100Hz, 1kHz
Counter Uncertainty	± (frequency reading × reference frequency accuracy + counter resolution)

AMPLITUDE ACCURACY(20℃ ~ 30℃)	
Comprehensive Amplitude	Input single range 0dB – 50dbM at ±1.5dB
Accuracy	90%

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

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

INPUT & OUTPUT	
RF input	N-type negative (50Ω)
USB	USB2.0 (host); USB2.0 (device)
LAN	10/100 Base-T, connector RJ-45
Serial Interfac	9 pins D-SUB (positive), RS-232
Reference input or output	10MHz, BNC (negative)

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
- CD (including Programmer's Guide) - 1
- USB cable - 1
- Power cord - 1
- 3G Test Antenna - 1
- BNC Coaxial cable - 1
- N Coaxial cable - 1
- BNC-N Adapter - 1
- LAN cable - 1
- RS-232(DB9) Cable - 1
- Interface protocol CD - 1
- Secondary development database CD - 1
- GPIB remote control interface - 1
- VGA output interface - 1

Ordering Information

AT8030D Spectrum Analyzer
9kHz to 3 GHz

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