ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

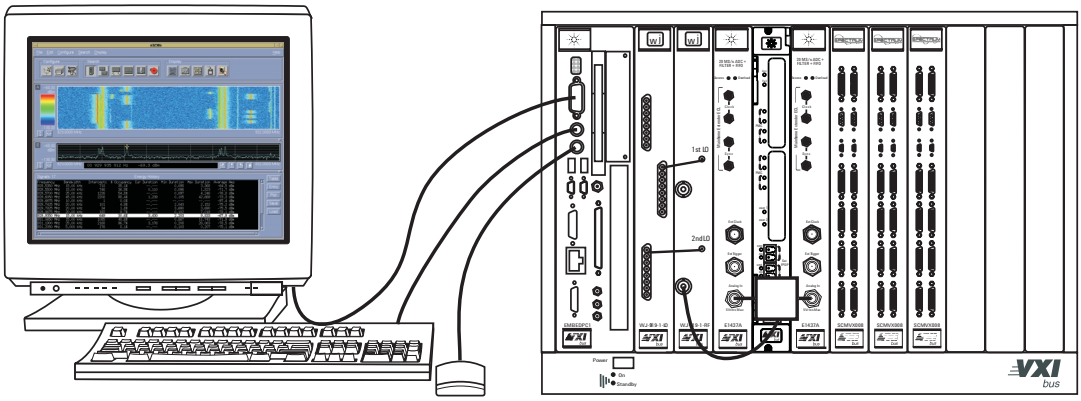
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Keysight / Agilent E2731B* at our website: *Click HERE*

Agilent E3238
Signals Development System

Technical Specifications

HF, VHF/UHF, and Microwave Configurations



Performance

The Agilent E3238 is designed to quickly locate elusive signals. E3238's fast sweep rate and high dynamic range significantly increase the probability of intercept. With the E3238, searches produce more hits quickly and efficiently.

Adaptability

Optional user-programming software can be used to customize the E3238. Searches can be optimized to capture the signals of interest while disregarding extraneous signals. Displays can also be customized to increase productivity.

Automation

The E3238 system automates common tasks so an operator can focus on more complex operations, work faster and accomplish more. It allows highly skilled operators to automate functions for less skilled operators. The system can even run unattended.

Integration

The E3238 can integrate with legacy systems and hand-off receivers. LAN, GP-IB, RS-232, or the VXI backplane can be used to communicate with other hardware. Windows® sockets provide fast communication between software processes, even from remote locations.

Agilent Technologies

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Standard Software Features

(Applies to all configurations of the E3238)

File

Secure display

Access control
- Password

Working directory

Snapshot directory

Log files

Load mission setup

Save mission setup

Preset mission setup

Print

Print to file

Socket connections

Shared libraries

Exit

Edit

Clear log

Clear log files

Clear energy history

Clear signal database

Clear frequency lists

Clear audio output

Clear all

Configuration

Antennas

Search receiver

Handoff receivers

Time reference

Channelizer

Search

Search
- Off
- On

Search type

General search

Directed search
- Up to 100 segments

Tuner sweep control
- Locked, unlocked

General search setup

Center frequency

Span frequency

Start frequency

Stop frequency

Full span

Antenna selection

Attenuation

Resolution bandwidth
- 7.3 Hz – 120 kHz (tuner and ADC dependent)

Shape factor
- 9:1
- 4:1
- 2.6:1

Average type
- Off
- RMS
- Peak

Number of averages
- 1-31

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Energy detection

Energy detection
- Off
- On

Energy criteria
- dB above threshold
- Bandwidth

Features
- User-generated with AS9

Threshold
- Threshold margin (dB)
- Number of segments
- Smoothing factor
- Minimum signal level

Energy history filter

(User-created with AS9)

Pre-filter(s) enable

Pre-filter(s) disable

Post-filter(s) eneable

Post-filter(s) disable

Alarms Setup

Alarms
- Enable
- Disable

Alarm type
- Energy
- Signal

Status
- Active
- Inactive

Trigger
- Always
- Per sweep
- Once

Events
- Single
- Multiple

Priority
- Low
- Medium
- High
- Critical

Energy detection schedule
- Continuous
- Band
- Hourly
- Daily

Energy features
- Energy
- Frequency
- Bandwidth
  - Min
  - Max
  - Average
  - Current
- Amplitude
  - Min
  - Max
  - Average
  - Current
- Duration
  - Min
  - Max
  - Average
  - Current
- Number of intercepts
- Number of detections
- Occupancy %
- Intercept time
  - First
  - Last
- Number of sweeps since first intercept
- Studio (user defined with AS9)
- RFSK

Energy type
- New energy
- Once energy
- Each energy
- Any energy
- No energy

Alarm tasks
- Handoff
- Visual
- Audible
- Frequency snapshot
- Time snapshot
- Add to frequency list
- Remove from frequency list

Signal Processors

User-defined pane

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Display

Display layout

Number of active layouts
- 6

Number of panes
- 8

Pane content types
- Off
- Trace A
- Trace B
- Trace C
- Trace D
- Handoff receivers
- Handoff log
- Text editor
- Command line
- Toolbar
- New energy log
- Alarm log
- Energy history
- Signal database
- Visual alarms
- Frequency lists
- Feature studio

Trace

Number of traces
- 4

Trace type
- Spectrum
- Spectrogram
- Color spectrogram

Threshold presentation
- Off
- Line
- Mask

Grid type
- Off
- Graticules
- Handoffs
- Energy history
- Alarm regions
- Frequency list

Grid frequency list
- List 1-20

Marker
- Off
- On

Handoff receiver link
- Receiver 1-100

Handoff setup

Snapshot setup

Trace scaling

Number of independent traces
- 4

Maximum amplitude

Minimum amplitude

Minimum frequency

Maximum frequency

Trace mouse functions

Left mouse button
- Off
- Marker
- Directed search band
- Delta marker

Middle button
- Off
- Drag and drop

Right mouse button
- Off
- Trace scaling
- Search receiver tuning
- Handoff new energy
- Handoff all energy

Trace color setup

Elements
- Background
- Trace
- Marker
- Grid
- Labels
- Threshold

Color layering order

Colors in color spectrogram
- 2-32

Default

General

Operating systems
- Windows 2000®

Control interfaces
- GPIB
- RS-232
- LAN
- VXI

Process-to-process communication
- Sockets (Requires AS9)

Number of antennas
- 16 (requires E1472A RF multiplexer)

Online, context-sensitive help system

Windows 2000 is a U.S. registered trademark of Microsoft Corporation.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Optional Software Features

35688D-AS9 User Programming

Option 35688D-AS9 allows users to extend the functionality of the E3238 and connect it to legacy systems. Extensions are written in C, and are dynamically linked into the E3238 as shared libraries. Software can be developed in Windows NT. Added functionality integrates seamlessly into the E3238 user-interface.

Shared library entry points
- Socket interface
- Spew interface
- User menu
- User pane (may require Motif™ programming)
- User alarm task
- Spectrum feature extraction
- Energy history database pre-filter
- Energy history database post-filter

35688D-ASH User Signal Programming

Option 35688D-ASH is an integrated software development environment to create, test, and deploy new signal types. Using a Programming Wizard, you can easily generate a working signal framework, and then drop in your own custom signal algorithms. The resulting program runs on a multi-processor VX008 DSP module, and is seamlessly integrated into the E3238 system. Using option 35688D-ASH, you can develop their own sensitive signals quickly.

35688D-ASM Feature Studio

Option 35688D-ASM is a graphical program for creating complex-shaped upper and lower limit lines. It generates C code that is used with option 35688D-AS9 to implement limit lines to use as pre-filters in the E3238.

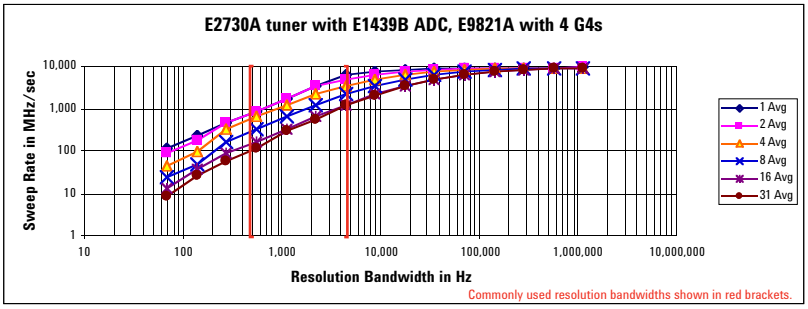
Specifications

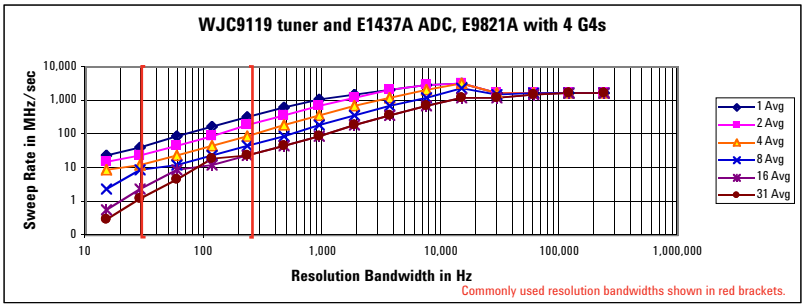
	HF	HF/VHF/UHF	VHF/UHF	VHF/UHF	µWave
Tuner/Digitizer	WJC9119/E1437A	89431A/E1437A	E2730A/E1439B	E2731A/E1439B	ComSol 5040/E1439B
Frequency range	0.1–32 MHz	2–2650 MHz	20–2700 MHz	20-6000 MHz	0.5–20 GHz
Useable IF bandwidth	6.75 MHz at 5.12 MHz IF	6 MHz at 5 MHz IF	36 MHz at 70 MHz IF	36 MHz at 70 MHz IF	36 MHz at 70 MHz IF
Tuner noise figure	13 dB, typical	14–15 dB, typical	11–12 dB, typical	16 dB typical	15 dB maximum
Tuner internally-generated spurious	-130 dBm, typical	N/A	-110 dBm, maximum	-110 dBm maximum	100 dBm maximum
RF input attenuationi	0–47dB, n 1 dB steps	0–75dB, in 5 dB steps	0–30dB, in 2 dB steps	0 - 30 dB in 2 dB steps	None
Tuner pre-selection	Yes	No	No	No	No
Tuner form factor	2 VXI C-1 modules	Rack and stack, 5.25"	1 VXI C-1 module	1 VXI C- module	1 VXI C-3 module
ADC residual - spurious responses	110 dBfs	-110 dBfs	-90 dBfs	-90 dBfs	-90 dBfs
ADC harmonic - distortion -	75 dBc or 110 dBfs	-75 dBc or -110 dBfs	-70 dBc or -90 dBfs	-70 dBc or -90 dBfs	-70 dBc or -90 dBfs
ADC form factor	1 VXI C-1 module	1 VXI C-1 module	1 VXI C-1 module	1 VXI C-1 module	1 VXI C-1 module
Operating temperature range	0–50° C	0–50° C	0–50° C (specified from 20–30° C)	0-50° C (specified from 20-30° C)	0–50° C

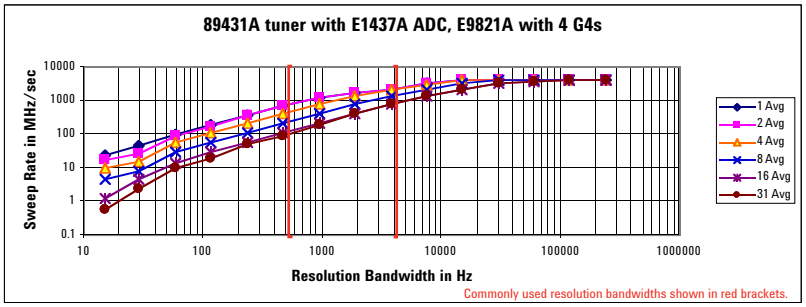
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

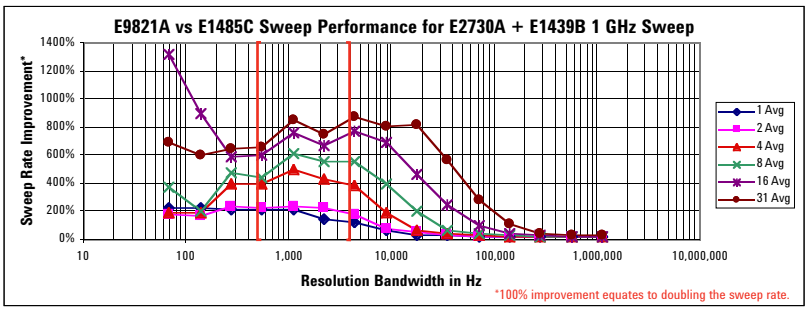
Benchmarks

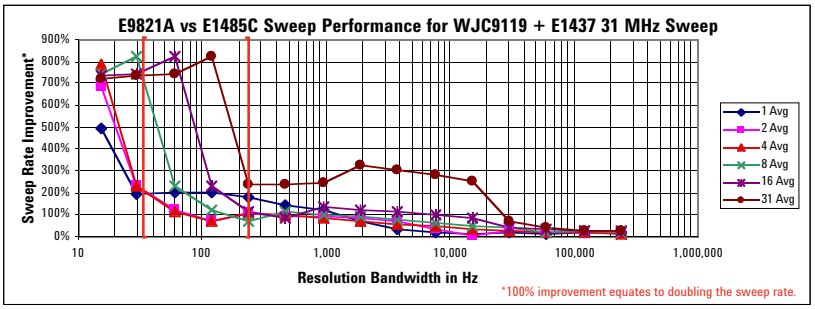
Sweep Rate Performance











Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Specification Note

Specifications describe warranted and benchmarked performance over a temperature range of 0° to 50 °C (except where noted), after a 30 minute warm up from ambient conditions. Supplemental characteristics identified as “typical” and “characteristic” provide useful information by giving non-warranted performance parameters. Typical performance is applicable from 20° to 30 °C. For more detailed specifications refer to the technical specification datasheets of the individual system components.

Support

Agilent Technologies products are available globally. The E3238 is a commercial product and is easy to buy, maintain, and obtain professional support services.

The E3238 arrives with everything pre-installed and ready to run. Because the E3238 is standards-based, your investment is protected. As technology ramps, so can your system.

Warranty

The hardware in the E3238 system is covered by a three-year return to Agilent Technologies parts and labor warranty. The software is warranted for 90 days. Additional coverage may be purchased from Agilent. Contact your local Agilent representative.

Ordering information

E3238S	E3238S signals development system
35688D	E3238S signals development system operating software
35688DU	E3238S Signals Development System software upgrade to current revision from earlier revisions
35688D-102	Standard E3238S software for Windows 2000 platform
35688D-AS9	User programming
35688D-ASM	Feature Studio
35688D-ASH	User signal processing
35688D-0RU	Software update installation planning

Export of the 35688 product identified in this literature is subject to U.S. Export control laws. Export licenses are approved on a case-by-case basis and sale of any of these products is dependent on approval of the United States Government.

Related Agilent Literature

Agilent Communications Intelligence Solutions Overview
literature number 5988-0633EN

E3238 Signals Development System Configuration Guide
literature number 5988-0562EN

E3238 Signals Development System Option ASH Product Overview
literature number 5968-7077E

E3238 Signals Development System Product Overview
literature number 5968-2075E

Test Systems and VXI Products Catalog
literature number 5980-0307E

Visit Our Websites

Agilent Communications Intelligence Information — www.agilent.com/find/COMINT

Agilent VXI Product Information — www.agilent.com/find/vxi

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Agilent Technologies' Test and Measurement Support, Services, and Assistance

Agilent Technologies aims to maximize the value you receive, while minimizing your risk and problems. We strive to ensure that you get the test and measurement capabilities you paid for and obtain the support you need. Our extensive support resources and services can help you choose the right Agilent products for your applications and apply them successfully. Every instrument and system we sell has a global warranty. Support is available for at least five years beyond the production life of the product. Two concepts underlie Agilent's overall support policy: "Our Promise" and "Your Advantage."

Our Promise

Our Promise means your Agilent test and measurement equipment will meet its advertised performance and functionality. When you are choosing new equipment, we will help you with product information, including realistic performance specifications and practical recommendations from experienced test engineers. When you use Agilent equipment, we can verify that it works properly, help with product operation, and provide basic measurement assistance for the use of specified capabilities, at no extra cost upon request. Many self-help tools are available.

Your Advantage

Your Advantage means that Agilent offers a wide range of additional expert test and measurement services, which you can purchase according to your unique technical and business needs. Solve problems efficiently and gain a competitive edge by contracting with us for calibration, extra-cost upgrades, out-of-warranty repairs, and on-site education and training, as well as design, system integration, project management, and other professional engineering services. Experienced Agilent engineers and technicians worldwide can help you maximize your productivity, optimize the return on investment of your Agilent instruments and systems, and obtain dependable measurement accuracy for the life of those products.
By internet, phone, or fax, get assistance with all your test & measurement needs

Online assistance:
www.agilent.com/find/assist

Phone or Fax
United States:
(tel) 1 800 452 4844

Canada:
(tel) 1 877 894 4414
(fax) (905) 282-6495

China:
(tel) 800-810-0189
(fax) 1-0800-650-0121

Europe:
(tel) (31 20) 547 2323
(fax) (31 20) 547 2390

Japan:
(tel) (81) 426 56 7832
(fax) (81) 426 56 7840

Korea:
(tel) (82-2) 2004-5004
(fax) (82-2) 2004-5115

Latin America:
(tel) (305) 269 7500
(fax) (305) 269 7599

Taiwan:
(tel) 080-004-7866
(fax) (886-2) 2545-6723

Other Asia Pacific Countries:
(tel) (65) 375-8100
(fax) (65) 836-0252
Email: tm_asia@agilent.com

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 2001
Printed in USA November 2, 2002

5963-6609E

Agilent Technologies

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP