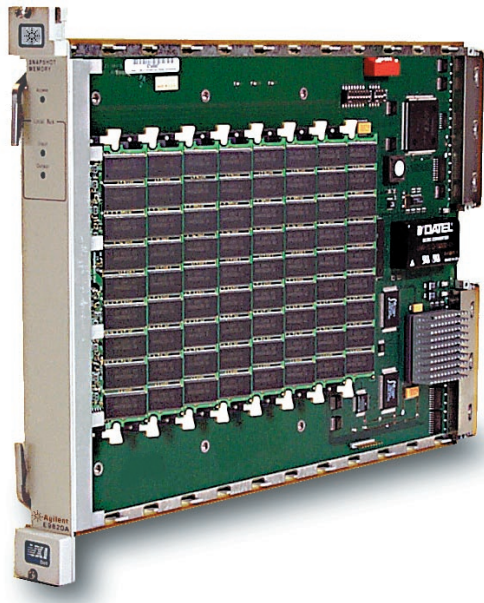Agilent E9820A

Snapshot Memory Module

Product Overview

- **Eight SDRAM DIMM sockets allow 128 to 1024 MB of snapshot memory**
- **Input and output data transfers on local bus at up to 53 MB/sec**
- **Snapshot collects user data up to 1024 MB**
- **Register-based VXIbus module**
- **VXI** *plug&play* **compatible**

Enhance your productivity by adding the Agilent E9820A Snapshot Memory module to a signal analysis, signals development or COMINT system. Use the E9820A to take deep, wide-bandwidth snapshots of energy of interest. When your system's DSP algorithms are not fast enough to analyze energy of interest in real-time, take a snapshot with the E9820A to get a second chance at detailed post-processing.

Configure the E9820A Snapshot Memory module with up to 1024 MB of snapshot memory connected to the Agilent local bus. Move data from its source over the local bus to snapshot memory as fast as 53 MB/sec, or move data from snapshot memory to local bus at rates of up to 53 MB/sec.

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Fast Data Snapshot

Whether your project requires a signals development system, signal analysis system or data acquisition system, success depends upon capturing the right information as quickly as possible. The E9820A helps by recording data at rates up to 53 MB/sec.

Use the E9820A to snapshot and record data representing wide-bandwidth energy for post-processing and analysis. It is ideal for saving digital data streams generated at rates too high for conventional disk-based memory modules to handle.

Configure the E9820A with up to 1024 MB of memory configured in its eight SDRAM DIMM slots. Store up to 25 seconds of an 8 MHz-wide signal digitized by the 20 MSa/s E1437A ADC. To extend your snapshot depth, simply add additional E9820A modules in adjacent slots of a VXI mainframe.

Augment the Agilent E3238 Signals Development System

Enhance your productivity by adding the E9820A Snapshot Memory module to your E3238 Signals Development System. The E3238 software integrates the module for you, providing an easy-to-use graphical user interface as well as automatic controls. When an unknown signal of interest appears, achieve instant signal snapshots for post-capture analysis and demodulation. Take snapshots at the click of a mouse, or when user-defined alarm criteria are met. Choose a selection of bandwidths up to 2 MHz for your snapshots, or command the E3238 to automatically determine the appropriate snapshot bandwidth of the detected signal of interest.

Flexible Data Transfers

The E9820A can store or send data, either over the VXIbus or over the fast Agilent local bus. Achieve up to 53 MBytes/s transfer speed over the local bus. Configure several Agilent instruments that use the local bus with the E9820A, including the E1430A, E1432A, E1433A and E1437A digitizers. If you use VXI input modules that do not have local bus support, data can be transferred to the E9820A over the VXIbus. Please note that data cannot be input or output to the device over both the VXIbus and the local bus at the same time.

Comprehensive Software Support

The snapshot memory module is a register-based VXI module that is VXI *plug&play* compatible. It is supported by a set of C example programs for use in HP-UX* or Microsoft Windows® operating systems. The E9820A command set provides a simple, straightforward interface for programming the module.

Product Specifications

Memory size

128 Mbytes
1024 Mbytes option 010

Memory type

PC100 non-buffered ECC SDRAM DIMMs

Data transfer speed

VXI Local Bus (LBUS)—up to 53 MB/sec

General Specifications

VXI System Level Specifications

VXI Standard Information	Conforms to VXI Rev. 1.4 C-size, single-slot with register-based programming "Slave" data transfer bus functionality A16, D16 capability D32 capability for data transfer Local bus capability
Size (single slot, C-size VXI module)	
Dimensions	14 inches deep, 9.2 inches high, 1.2 inches wide
Weight	3 pounds
Software Drivers	
Driver Type	VXI *plug&play*
Supported Operating Systems	Windows® 95, Windows NT®, HP-UX 10.X
Regulatory Compliance	
Safety	Designed for compliance to CSA C22.2, No. 1010.1 Designed for compliance to EN61010
EMC	Complies with EN61326 for laboratory equipment (requires connector shields in the mainframe)
Radiated Emissions	CISPR 11 :1990 Group 1, Class A (requires connector shields in the mainframe)

Environmental

Operating Restrictions

Ambient Temperature	0 °C to 55 °C
Humidity, Non-condensing	10% to 90% at 40 °C
Maximum Altitude	4600m (15,000 ft) Above 2285m (7500 ft), derate operating temperature by −3.6 °C per 1000m (−1.1 °C per 1000 ft)

Storage and Transport Restrictions

Ambient Temperature	−40 °C to 70 °C
Humidity, Non-condensing	max 95% RH at 65 °C
Maximum Altitude	4600m (15,000 ft)

General Characteristics

VXI Power Requirements

Range	DC Current (Amps)	Dynamic Current (Amps)
+5 V:	2.0	1.0
+12 V:	0	0
-12 V:	0	0
+24 V:	0	0
-24 V:	0	0
-5.2 V:	0.7	0.07
-2 V:	0.175	0.02

VXI Cooling Requirements

15 °C rise	4.0 liters/second 0.5 mm H_2O

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.

For More Assistance with Your Test & Measurement Needs go to

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