Agilent E1406A
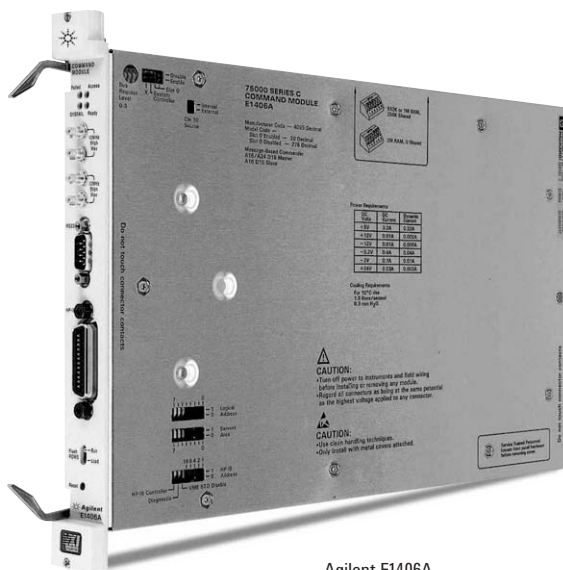# VXI GPIB Command Module, C-Size

Data Sheet

- 1-Slot, C-size, message-based commander
- GPIB, RS-232, Slot 0, and Resource Manager
- 2 MB RAM
- MXIbus protocol support for high throughput
- Easy to program as message-based instruments

Description

The Agilent Technologies E1406A Command Module is a **C-size, 1-slot VXI message-based commander** that provides **Slot 0** and **Resource Manager functions**. It can act as a VMEbus system controller and GPIB (IEEE-488)-to-VXIbus interface device for transparently communicating with any manufacturer's message-based VXI modules. The E1406A Command Module has FLASH memory for downloadable drivers, so you can program Agilent register-based devices using the high-level SCPI programming language. It also translates SCPI commands for register-based instruments and therefore, makes these VXI devices as easy to program as message-based instruments.

This command module also includes a MXIbus Resource Manager for VXIbus extensions. This allows you to maintain high-throughput performance in multiple mainframe systems. With its flexible triggering and clock interfacing, you can synchronize the VXI backplane 10 MHz clock to an external TTL signal.

Refer to the Agilent Technologies Website for instrument driver availability and downloading instructions, as well as for recent product updates, if applicable.

Agilent E1406A

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Product Specifications

General Characteristics

Processor:	16 MHz 68000
Interface:	IEEE-488
Clock accuracy:	0.005% elapsed time
Memory:	1.75 MB FLASH max. 2 MB RAM max.
Shared memory:	512 KB max.
Agilent IBASIC:	Yes
Slot 0 functions:	Yes
Resource manager:	Yes
MXIbus resource manager:	Yes
CLK10:	Yes
Temperature coefficient:	0.001%, to 0.012% of time since last set *(per° C change in temperature)*
Resolution:	1.0 s

CLK10

Input:	TTL or low-level ac
Minimum input level:	40 mV p-p
Maximum input level:	42.5 V p-p
Output:	TTL
Jitter:	0.03% (−55 dB)
Initial accuracy:	50 ppm
Maximum stability:	± 20 ppm/year (0-55° C)
Typical stability:	± 3 ppm/year at 25° C

Trigger Input

Levels:	TTL
Input load:	55 kΩ, 50 pF
Maximum rate:	12.5 MHz (TTL), 40 MHz (ECL)
Minimum pulse width:	30 ns (TTL), 12.5 ns (ECL)
Maximum trigger delay:	30 ns

RS-232 Interface (for terminal only)

Baud rate:	300, 1200, 2400, 4800, 9600, 19200
Parity:	Even, Odd, One, Zero, None
Character size:	7, 8
Pace:	Xon/Xoff, None
Hardware handshake:	DTR, RTS
Buffer size:	16 characters
RS-232 terminals supported:	HP 700/92, HP 700/94, HP 700/22, HP 700/43; WYSE WY-30, DEC VT100, DEC VT220
VXI compliance:	Revision 1.4 compliance

General Specifications

VXI Characteristics

VXI device type:	Message-based commander
Size:	C
Slots:	1
Connectors:	P1/2
Shared memory:	Yes
VXI buses:	Local Bus A TTL Trigger Bus ECL Trigger Bus

Instrument Drivers - See the Agilent Technologies Website (http://www.agilent.com/find/inst_drivers) for driver availability and downloading.

Command module firmware:	n/a
Command module firmware rev:	n/a
I-SCPI Win 3.1:	n/a
I-SCPI Series 700:	n/a
C-SCPI LynxOS:	n/a
C-SCPI Series 700:	n/a
Panel Drivers:	Yes
VXI*plug&play* **Win Framework:**	Yes
VXI*plug&play* **Win95/NT Framework:**	Yes
VXI*plug&play* **HP-UX Framework:**	No

Module Current

	I_{PM}	I_{DM}
+5 V:	0.1	0.1
+12 V:	0	0
−12 V:	0	0
+24 V:	0	0
−24 V:	0	0
−5.2 V:	0	0
−2 V:	0	0

Cooling/Slot

Watts/slot:	19.00
ΔP mm H$_2$O:	0.30
Air Flow liter/s:	1.50

Ordering Information

Description	Product No.
VXI GPIB Command Module, C-Size	E1406A
Service manual	E1406A 0B3
Taiwan - Chinese localization	E1406A AB0
Korea - Korean localization	E1406A AB1
Germany - German localization	E1406A ABD
Spain - Spanish localization	E1406A ABE
France - French localization	E1406A ABF
Japan - Japanese localization	E1406A ABJ
Italy - Italian localization	E1406A ABZ

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