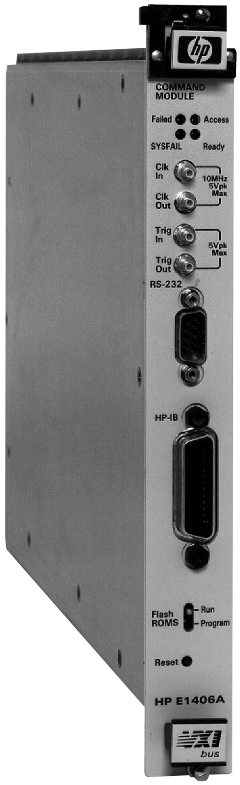
VXI HP-IB Command Module; C-size
HP E1406A

Technical Specifications

- **HP-IB, RS-232, slot 0, and resource manager**
- **Up to 2 MB RAM**
- **MXIbus protocol support for high throughput**
- **HP VIC, VXI Installation Consultant- fast/easy set-up**
- **Easy to program as message-based instruments**



Description

The HP E1406A Command Module is a **C-size VXI message-based commander** that provides **Slot 0** and **Resource Manager functions**. It can act as a VMEbus system controller and HP-IB (IEEE-488)-to-VXIbus interface device for transparently communicating with any manufacturers message-based VXI modules. The HP E1406A Command Module has FLASH memory for downloadable drivers, so you can program HP 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. Optional HP IBASIC gives the HP E1406A Command Module standalone controller features.

Refer to the HP Website directory of addresses (URLs) for instrument driver availability and downloading instructions.

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.
HP 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 pp
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

VXI Characteristics

VXI device type:	Message-based Controller
Size:	C
Slots:	1
Connectors:	P1/2
Shared memory:	Yes
VXI busses:	Local Bus A, TTL Trigger Bus, ECL Trigger Bus
C-size compatibility:	Yes

Instrument Drivers

See the HP Website (http://www.hp.com/go/inst_drivers) for driver availability and downloading.

Command module firmware:	Message-based Controller
Command module firmware rev:	A.09
I-SCPI Win 3.1:	n/a
I-SCPI Series 700:	n/a
C-SCPI LynxOS:	n/a
C-SCPI Series 700:	n/a
HP VEE Drivers:	Yes
VXI*plug&play* Win Framework:	Yes
VXI*plug&play* Win95/NT Framework:	Yes
VXI*plug&play* HP-UX Framework:	No (not available at time of publication)

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_2O:	0.30
Air Flow liter/s:	1.50

Ordering Information

Description	Product No.
VXI HP-IB command module; C-size, 1 slot	HP E1406A
Expanded memory	HP E1406A 010
IBASIC controller	HP E1406A 020
Add manual set	HP E1406A 0B1
Service manual	HP E1406A 0B3
Taiwan - Chinese localization	HP E1406A AB0
Korea - Korean localization	HP E1406A AB1
China - Chinese localization	HP E1406A AB2
Germany - German localization	HP E1406A ABD
Spain - Spanish localization	HP E1406A ABE
France - French localization	HP E1406A ABF
Japan - Japanese localization	HP E1406A ABJ
Italy - Italian localization	HP E1406A ABZ
3 yr. retn. to HP to 1 yr. OnSite warr.	HP E1406A W01

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