

HP/Agilent 3852A Data Acquisition/Control Unit Replacement

Overview

The HP/Agilent 3852A Data Acquisition/Control Unit has been a highly popular product since its introduction in 1985, but it became obsolete in November 2002. Agilent Technologies and VXI Technology have continued to develop and offer the highest quality products since the 3852A's introduction. These products, including VXI instruments, offer up-to-date programmability and control along with exceptional specifications. VXI Technology is providing you with the new product information to maximize your ability to update and continue your data acquisition applications.

Recommended 3852A Migration Products

There are three main VXI products or product families that may be considered for your Data Acquisition application needs.

- **VT1413C/15A/19A scanning A/D and measurement control cards, and other VXI instruments**
- **EX1048 48-channel thermocouple measurement instrument**
- **EX1629 48-channel strain conditioning and measurement instrument**

The VT1413C/15A/19A cards were designed for high-performance data-acquisition and computer-aided test applications. The card family addresses the key application requirements of high-speed scan, 16-bit resolution, high accuracy (0.01% of reading), 4 mV to 60 V full-scale input (using VT1503A SCP), 64 kSa dual-ported FIFO buffer for fast data transfers, current value buffer for on-line monitoring, and automatic self-calibration.

The VT1415A specifically offers a solution for tough monitoring and control applications such as linear control of multiple loops of temperature, position, velocity, acceleration, rpm, and other parameters. The VT1415A also offers independent control loops with multi-level alarms and watchdog requirements.

The table below provides specific module/accessory migration details for the 3852A. You can easily identify the 3852A module/function and the corresponding recommended products. In order to aid in determining the correct solution to upgrading the Agilent 3852A.



Features

Upgrade the Obsolete HP3852A

Switch to VXIbus Modules that will be Supported for 10 to 15 years

Superior VXIbus Cross Referenced Products

Proven Migration Path

Supported by Our Endorsed Solution Providers (ESPs)

Upgrade Credit Available

HP/Agilent 3852A Data Acquisition/Control Unit Replacement



3852A Module	3852 Module-Description	VXI Technology Replacement
44701A	5 1/2 Digit Integrating Voltmeter ACV, DCV, 2-wr, 4-wr. Autozero	VM2710A 6.5 digit integrating Digital Multi Meter, ACV, DCV, 2-wr, 4-wr.
44704A	100 kSa/s 16-Bit High Speed Voltmeter	VT1413C 100 kSa/s 16-bit 64-ch scanning A/D or VT1419A multifunction
44705A	20-ch. Relay Multiplexer Hi, Lo, Grd. Customer installable Lo-pass filter for each ch. Up to 170 Vp. Scan of 450 ch/s	SMP3001 64-ch relay multiplexer. 1,2 or 4 wire, Max 300 V dc and 300 V ac. Scan of 300 ch/s. Filters external.
44705F	20-ch Solid State Relay mux	See VT1413C or VT1419A A/D with built-in 64-ch FET mux
44705H	20-ch High-voltage Relay mux. Max 250 V dc, 354 V ac	SMP3001 64-ch 2-wire, 32-ch 3 or 4 wire relay mux Max 300 V dc , 354 V ac.
44706A	60 ch Single-Ended Relay Multiplexer Single-ended (lo & grd are common). 42 Vp, Scan 450 ch/s	VT1413C or VT1419A 64-ch scanning A/D with VT1508A gain/filter SCP and VT1586A isothermal reference panel for higher accuracy
44708A	20-ch Relay MUX With thermocouple compensation.Hi, Lo, Grd. Lo-pass filter for each Ch.Thermo couple compensation w/isothermal block & software compensation. 170 Vp. Scan 450 ch/s	VT1413C or VT1419A 64-ch scanning A/D with VT1508A gain/filter SCP and VT1586A isothermal reference panel for higher accuracy or EX1048 48-channels thermocouple measurement instrument
44708	20-ch Solid State Mux With thermocouple compensation	VT1413C or VT1419A 64-ch scanning A/D or EX1048 48-channel thermocouple measurement instrument
44708H	20-ch High Voltage Relay Mux with thermocouple compensation. Max 250 V dc, 354 V ac	SMP3001 32-ch. 4-wire Mux. Scan of 300 ch/s
44709A	20-ch FET Multiplexer. Same as 44705A except w/FET Hi, Lo, Grd. Lo-pass filter for each Ch. Up to 10.24 Vp. Scan of 600 ch/s (8 K ch/s w/ext.DMM)	VT1413C or VT1419A 64-ch scanning A/D
44710A	20-ch FET Mux with thermo couple compensation	VT1413C or VT1419A 64-ch scanning A/D with VT1508A gain/filter SCP and VT1586A isothermal reference panel for higher accuracy or EX1048 48-channel Thermocouple measurement instrument
44711A	24-ch high speed FET multiplexer	VT1413C and VT1419A have 100 kSa/s 64-ch. FET mux built in
44712A	48-ch high speed, single ended FET mux	No equivalent in VXI from Agilent. But incorporated into other modules
44713A/B	24-ch high speed FET thermocouple mux	VT1413C or VT1419A 64-ch scanning A/D with VT1508A gain/filter SCP and VT1586A isothermal reference panel for higher accuracy or EX1048 48-channel thermocouple measurement instrument
44713A opt H01	12-ch FET mux with gain of 100 V and 100V isolation	No Replacement Suggested
44713A opt H02	12-ch FET mux with divide by 10 attenuator	VT1413C or VT1419A with up to 8 of the VT1513A 8-ch divide by 16 attenuators
44714A	3-ch stepper motor controller with quadrature counter	VT1538A 8-ch counter/timer/pulse output/stepper motor control SCP with VT1419A
44715A	5-ch 200 kHz counter totalizer	VT1538A 8-ch counter/timer/pulse output/stepper motor control SCP (100 kHz) with VT1419A
44717A	10-ch 120 ohm strain relay mux	VT1506A 8-ch 120 ohm bridge completion/excitation SCP for strain with VT1509A gain 64 input SCP on VT1413C or VT1419A or EX1629 48-channel bridge completion/ /excitation
44718A	10-ch 350 ohm strain relay mux	VT1507A 8-ch 350 ohm bridge completion/excitation SCP for strain with VT1509A gain 64 input SCP on VT1413C or VT1419A or EX1629 48-channel bridge completion/excitation
44719A	10-ch 120 ohm strain FET mux	VT1506A 8-ch 120 ohm bridge completion/excitation SCP with VT1509A gain 64 input SCP on VT1413C or VT1419A or EX1629 48-channel bridge completion/ excitation
44720A	10-ch 350 ohm strain FET mux	VT1507A 8-ch 350 ohm bridge completion/excitation SCP with VT1509A gain 64 input SCP on VT1413C or VT1419A or EX1629 48-channel bridge completion/ excitation
44721A	16-ch digital input levels 5 V, 12 V, 24 V, or 48 V. Debounce setting s 10 Hz, 100 Hz, 1 kHz	VT1533A 16-ch non-isolated or VT1536A 8-channel isolated SCP with VT1415A or VT1419A scanning A/D
44724A	16-ch digital output	VM1548 48-ch non-isolated digital I/O
44723A	3852A High-speed digital sense/control	No Replacement Suggested
Z2204A	32-ch isolated input/interrupt	No Replacement Suggested
44724A	16-ch digital output	VM1548 48-ch TTL I/O or VT1536A 8-ch digital output SCP with VT1419A
44725A	16-ch general purpose switch SPDT, Form C	SMP5004 30-ch 5A SPDT switch, Form C
44726A	2-ch 800 kSa/s arbitrary waveform generator	VM3640 1-ch Arb waveform generator, 50 MSa/s
44727A	4-ch DAC. 12 bit 0 V to 10 V, -10 V to +10 V, 0 mA to 20 mA, 4 mA to 20 mA	VM3608A 8-Ch, ±20V, ±50 mA 16-bit or VT1531A ±10 V 16-bit or VT1532A ±10 mA 16 bit SCP with VT1415A or VT1419A scanning A/D
44728A	8-ch relay actuator. Switch up to 30 V dc at 2 A, 250 V ac at 3 A	SMP5004 30-ch SPDT 5 A , 110 V dc, 250 V ac rms, Form C
44729A	8-ch power controller	SMP2003 8-ch 20 A switch module
44730A	4-ch track/hold MUX with peak detect	VT1510A 4-ch sample & hold SCP (no peak detect) with VT1413C or VT1419A
44732A	4-ch 120 ohm dynamic strain MUX	VT1511A 4-ch 120/350 ohm dynamic strain SCP with VT1413C or VT1419A or EX1629 48-channel bridge completion/excitation
44733A	4-ch 350 ohm dynamic strain MUX	VT1511A 4-ch 120/350 ohm dynamic strain SCP with V T1413C or VT1419A or EX1629 48-channel bridge completion/excitation
44736A opt H01	8-ch LVDT signal conditioner	Use DCV/In/Out LVDT with VT1413C or VT1419A or North Atlantic Instruments LVDT VXI module
44788A	GPIB controller interface for 3852A	Use computer GPIB interface
44789A	RS-232/422 serial interface for 3852A	Use computer serial interface