GE GE □□□ Series Service Manual

IS215UCVGH1A

1. Description

IS215UCVGH1A Technical Specifications

2. Specifications

Specification	Value
Manufacturer	GE Energy
Series	Mark VI IS200
Part	Number IS215UCVGH1A
Weight	5 lb
Product	Type UCVG Controller
Instruction	Manual GEH-6421V
Memory	128MB of Flash Memory and 128MB of SDRAM
Processor	Type Intel Ultra Low Voltage Celeron 650 MHz
Ports	Qty 2 10BaseT/100BaseTX (RJ-45 Connector) Ethernet
Additional	Ports Com1 and Com2
Power	Requirements +5V dc, 4 A typical, 5.4 A Maximum, +12 V dc, less than 1mA typical, -12 V dc, less than 1mA typical
About	the IS215UCVGH1A
One	of five versions of the UCV controller available for the Mark VI. The IS215UCVGH1A:

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About the IS215UCVGH1A

One of five versions of the UCV controller available for the Mark VI. The IS215UCVGH1A:

is a single-slot version of the controller

can directly replace any previous UCV controller in the Mark VI system

does not require a backplane upgrade if it replaces an earlier version

installs into the VME rack

IS215UCVGH1A Auxiliary Hardware

Built with an Intel Ultra Low-Voltage Celeron 650 processor chip

Includes 128MB of SDRAM and 128MB of flash memory

Front faceplate features:

Reset switch

SVGA monitor port

Keyboard/mouse port

Two COM ports (labeled 1 and 2, side by side)

Two stacked Ethernet ports (labeled LAN1 and LAN2)

Two individual USB connectors

Four LED indicators

A faceplate opening

Populated by several auxiliary boards

Contains standoffs for adding auxiliary components

Has a single backplane

SPECIFICATIONS:

Part No: IS215UCVGH1A

Manufacturer: General Electric

Product Type: VME Controller Single Slot Board

Series: Mark VI

Microprocessor: Intel Ultra Low Voltage Celeron 650 MHz

Memory: 128 MB SDRAM

Operating System: QNX

Primary Ethernet: 10BaseT/100BaseTX

Operating temperature: 0 to 70o C

Power Supply Voltage: 24 V dc

Board Size: 2.8 cm high x 8.6 cm

Weight: 0.45 kgs

Availability: In Stock

Country of Origin: USA

Manual: GEI-100603A

FUNCTIONAL DESCRIPTION:

IS215UCVGH1A is a VME Controller Single Slot Board manufactured and designed by General Electric as part of the Mark VI Series used in GE Speedtronic Control Systems. The UCVG is a single-slot board using an Intel Ultra Low Voltage Celeron 650 MHz processor with 128 MB of flash memory and 128 MB of SDRAM. Two 10BaseT/100BaseTX (RJ-45 connector) Ethernet ports provide connectivity. The first Ethernet on the UCVG allows connectivity to the UDH for configuration and peer-to-peer communication. The second Ethernet on the UCVG is for use on a separate IP logical subnet and can be used for Modbus or private EGD network. Configuration of the second Ethernet port is performed through the toolbox. The controller validates its toolbox configuration against the existing hardware each time the rack is powered up.

The Innovation Series controller is hosted by a family of 6U high, single or double slot, Single Board Computers (SBC). The controller mounts on a Versa Modular Euro (VME) rack, and communicates with I/O boards through the VME bus. Some of the board types also support local I/O in the form of PCI Mezzanine Card (PMC) daughterboards. The controller Operating System (OS) is QNX, a real time, multitasking OS designed for high-speed, high reliability industrial applications. The controller is loaded with software specific to its application using the Control System Toolbox (toolbox). Three communication ports provide links to operator and engineering interfaces as follows:

Ethernet connections for communication with Human-Machine Interface (HMI) and other control equipment

RS-232C connection for initial setup using the COM1 port

RS-232C connection for communication with distributed control systems (DCS) using the COM2 port (such as Modbus slave)

IS215UCVGH1A

PC BOARD

VME CONTROLLER CARD

VMIC

C962569

MARK VI UCV CONTROLLER

SINGLE SLOT