GE GE □□□ Series Service Manual

IS215VCMIH2B

1. Description

IS215VCMIH2B - VME Communication Interface Card

2. Specifications

Specification	Value
Original	**Manufacturer GE Industrial Systems**
Series	**Mark VI Speedtronic**
Functional	**Acronym VCMI**
Functional	**Part Number IS215VCMIH2B**
Functional	**Description VME Bus Master Controller Board**
PCB	**Coating Type Conformal Coating**
Primary	**Functional Revision B**
Frequently	**Asked Questions about IS215VCMIH2B**
Can	**this IS215VCMIH2B Circuit Board be described as being protected by any warranty upon my original purchase from AX?**

3. Product Information

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IS215VCMIH2B Technical Specifications

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Frequently Asked Questions about IS215VCMIH2B

Can this IS215VCMIH2B Circuit Board be described as being protected by any warranty upon my original purchase from AX?

Yes. This IS215VCMIH2B device would be guaranteed three-year protection under our standard AX PCB warranty.

Why is this IS215VCMIH2B device's B-rated revision considered a functional style of Mark VI Series product revision?

This IS215VCMIH2B PCB's sole revision is a functuonal revision as it seeks to alter the base performance specifications and overall functional quality of the IS215VCMIH2 base PCB product.

About the IS215VCMIH2B

The IS215VCMIH2B is a board component for the Mark VI system first manufactured by General Electric. The MKVI was one of the final steam and gas management systems released by GE under the “Speedtronic” name. This line focused on using good design and multiple backups to create reliable management systems that would increase the efficiency of the related turbines. The Mark VI Turbine Control System Series that this IS215VCMIH2B device belongs to, as you can probably guess solely based off of its GE-formulated full extended product series title, exists with a specific set of possible functional applications in the control and management systems of General Electric-compatible gas, steam, and wind turbine automated drive assemblies. This fact firmly asserts the Mark VI Series' functional dominance over the previously-considered industry standard of the Mark V Turbine Control System Series, as the Mark VI Series added the alternative energy-focused wind turbine possible application onto the gas and steam-based environments established earlier on through the Mark V Series. This IS215VCMIH2B PCB's Mark VI Series is additionally valued as one of the final-developed GE Mark product series utilizing the patented Speedtronic control system technology first seen with the rollout of the initial Mark I Series way back in '69.

Hardware Tips and Specifications

The IS215VCMIH2B functions as a VME Bus Master Controller board. The board is designed to interface communications between the controller and the I/O boards. The IS215VCMIH2B also manages IDs for boards within the rack and associated terminal boards. There are 2 major versions of the VCMI board (VCMIH1/VCMIH2.) The IS215VCMIH2B has four port connections located on its front faceplate. This includes one serial port and three IONet connectors. Each IONet connector has three LED indicators placed above it. These are labeled “TX,” “RX,” and “CD.” The board also has LED indicators labeled Run/Fail/Status (placed above a push button reset switch,) and four LEDs labeled 1,2,4, and 8. The faceplate connects to the main board using screws. The IS215VCMIH2B is a 6U high VME board that is .0787 inches wide. It has a Texas Instruments 32-bit digital signal processor and 32-bit transfer configuration SRAM, 256k x 32. The board has two backplanes, a single 12-pin vertical male connector, (p5,) and several connectors made from conductive dots. The board uses integrated circuits, resistors, capacitors, and diodes. There are three transformers located near the front edge. The board has several transformers and over forty inductor beads.

This IS215VCMIH2B VME Bus Master Controller Board printed circuit board product offering from General Electric is actually not the originally-developed product of its specific General Electric Mark VI Series intended functional role, as that would more than likely have to be considered the IS215VCMIH2 parent VME Bus Master Controller Board PCB product notably not taking advantage of this IS215VCMIH2B VME Bus Master Controller Board device's sole B-rated functional product revision. This is a factoid that was discovered only upon a functional analysis of the IS215VCMIH2B VME Bus Master Controller Board functional product number itself, which was deemed as necessary given this IS215VCMIH2B VME Bus Master Controller Board's lack of online-available instructional manual documentation. The IS215VCMIH2B VME Bus Master Controller Board functional product number codes for a number of relevant IS215VCMIH2B VME Bus Master Controller Board hardware qualities through its series of consecutive functional naming chunks. For starters, the IS215VCMIH2B VME Bus Master Controller Board product number begins with the dual-functional IS215 series tag responsible for identifying this IS215VCMIH2B VME Bus Master Controller Board product's special modular Mark VI Series assembly as well as it typical GE manufacture location. Some of the other relevant IS215VCMIH2B VME Bus Master Controller Board qualities revealed through this medium include its:

VCMI functional product acroynm

Group 2 Mark VI Series grouping

Conformal PCB coating style

Aforementioned B-rated revision

Part No.: IS215VCMIH2B

Manufacturer: General Electric

Country of Manufacture: United States

Product Type: VME Bus Master Controller

Series: Mark VI

Availability: In Stock

IS215VCMIH2B is a VME Communication Interface Card manufactured by General Electric as part of the Mark VI Series used in gas turbine control systems.

The VME Bus Master Controller (VCMI) board serves as the communication interface between the controller and the I/O boards.

The board also provides communication interface functionality to the IONet system control network.

The VCMI functions as the VME bus master in both control and I/O racks.

The board manages board IDs and associated terminal boards within the rack system.

Through the J301 backplane connector, the VCMI card receives analog and digital feedback on power status.

The VCMI board is available in two versions:

* VCMIH1

* VCMIH2

The board includes four-port connections on the front faceplate.

Three IONet connectors and one serial port are provided.

LED indicators are positioned above each IONet connector.

The IONet connector labels are:

* TX
* RX
* CD

Additional LED indicators are labeled:

* 1
* 2
* 4
* 8

Run/Fail/Status LED indicators are located above a push-button reset switch.

The faceplate is attached to the main board using screws.

Features of IS215VCMIH2B

* Board Type: 6U high VME board with 0.787-inch width
* Processor: TMS320C32 32-bit digital signal processor by Texas Instruments

Memory Specifications

* 32 Kbytes dual-port memory in 32-bit transmission configuration
* 256k × 32 SRAM
* 512k × 8 VCMIH B flash memory
* 4096k × 8 VCMIH C flash memory

Communication Specifications

H1 Version:

* One IONet 10Base2 Ethernet port
* BNC connector
* 10 Mbits/sec communication speed

H2 Version:

* Three IONet 10Base2 Ethernet ports
* BNC connections
* 10 Mbits/sec communication speed