GE GE □□□ Series Service Manual

IS215VCMIH2CC

1. Description

SPECIFICATIONS

3. Product Information

SPECIFICATIONS

Part No.: IS215VCMIH2CC

Manufacturer: General Electric

Country of Manufacture: United States of America (USA)

Technology: Surface-mount

Temperature Operating: -30 to 65oC

Product Type: Bus Master Controller Module

Availability: In Stock

Series: Mark VI

Functional Description

IS215VCMIH2CC is a bus master controller module developed by GE. It is a part of Mark VI control system.The VCMI Bus Master Controller assumes a pivotal role within the system architecture, functioning as a comprehensive communication interface that orchestrates the exchange of data and commands. Serving as the linchpin between the primary controller and the array of I/O boards, the VCMI ensures a fluid and efficient communication channel, facilitating the seamless integration of various components. Furthermore, its significance extends to interfacing with the broader system control network, denoted as IONet, where it plays a crucial role in harmonizing communication across the entire network infrastructure.

Features

A distinctive feature of the VCMI lies in its role as the VME bus master specifically within the control and I/O racks. In this capacity, the VCMI takes charge of the VME bus, a standardized computer bus architecture, overseeing the coordination of data transfer and control signals within these racks.

VCMI takes on the responsibility of managing unique identification (ID) assignments for all boards housed in the racks, as well as their associated terminal boards. This ID management function ensures a systematic and organized approach to the recognition and interaction of individual components within the rack, contributing to the overall efficiency and reliability of the system.

VCMI Bus Master Controller serves as a multifaceted communication hub, seamlessly linking the controller, I/O boards, and the broader system control network. Its role as the VME bus master in specific racks enhances its capabilities, enabling it to govern and optimize the flow of information, ultimately bolstering the performance and cohesiveness of the integrated system.

Board Type: 6U High VME Board

The specified board is classified as a 6U high VME board, boasting dimensions that adhere to the widely adopted VME standard. Standing at a height of 6U, the board aligns with the standardized form factor, making it compatible with a range of systems and platforms that adhere to the same specifications.

With a width of 0.787 inches, this VME board is designed to seamlessly integrate into VME chassis, contributing to the modular and scalable nature of the overall system.

Processor

Texas Instruments TMS320C32 32-bit Digital Signal Processor: At the core of this VME board lies the processing powerhouse - the Texas Instruments TMS320C32. This processor is a 32-bit digital signal processor (DSP), renowned for its capabilities in handling complex mathematical computations and signal processing tasks.

TMS320C32 is a robust and specialized processor, well-suited for applications that demand high-speed and efficient digital signal processing, making it a fitting choice for this board's intended functionalities.

Memory

Dual-Port Memory, 32 Kbytes in 32-Bit Transfer Configuration: The memory architecture of this VME board is geared towards optimal performance and data handling. Equipped with dual-port memory, the board facilitates concurrent access to data from multiple sources, enhancing overall efficiency. The memory configuration includes 32 Kbytes of SRAM (Static Random-Access Memory) in a 32-bit transfer setup. This choice of memory aligns with the requirements of data-intensive applications, ensuring rapid access and retrieval of information.

SRAM, 64k x 32; Flash Memory, 128k x 8: Delving further into the memory specifications, the board is equipped with 64k x 32 SRAM, providing a substantial cache for storing and manipulating data in real-time. Additionally, the inclusion of Flash memory with a capacity of 128k x 8 further extends the board's storage capabilities, offering non-volatile memory for program storage and data retention. This dual-memory configuration caters to the diverse needs of the applications this board is designed to support, striking a balance between speed and data persistence.