GE Service Manual

IS200SSCAH2AGD

1. Description

IS200STAIH2AGD Technical Specifications

2. Specifications

Specification	Value
Manufacturer	**General Electric**
Manufacturer	**Mark VI Speedtronic**
Part	**Number IS200STAIH2A**
Functional	**Acronym (Abbreviation) STAI**
Product	**Status (General) Terminal Board**
Mounting	**Site STAI Site (labeled)**
Mounting	**Strategy Standard DIN Rail**
Individual	**Mark VIe/S Series Grouping Group 2**
I/O	**Packs Included One Singular I/O Pack**
Unique	**Input and Output Pack Redundancy Simplex**
No	**Price Impact # IS230SNAI**
Shipping	**Weight 4.19 lb**

3. Product Information

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About the IS200STAIH2AGD

Model Name: IS200STAIH2AGD.

Type: DINrail TRBD ANLGIO board (Printed Circuit Board/PCB).

Series: Component within the General Electric (GE) Mark VI series.

Greater Product Line: Part of the "Mark line" by GE.

Application: Mark products are used for the automation and management of gas and steam turbines, with history dating back to the Mark I in 1969.

Hardware Tips and Specifications

Form Factor: Large, square-shaped printed circuit board.

Terminal Block:

Large green plastic terminal block at the bottom edge.

Contains a total of forty-eight (48) terminals.

Twenty-four (24) terminals on the top row, twenty-four (24) on the bottom row.

Transistors:

Ten (10) black, half-circle shaped transistors.

Arranged in a horizontal line in the middle of the PCB.

Jumpers:

Two (2) red jumpers positioned between every pair of transistors.

Used to connect two (2) jumper pins to alter the board's operations.

Jumper Pins:

Many different jumper pins made of silver or gold metal.

Most are situated among the transistors.

Four (4) jumper pins are arranged together in a line near the top right corner of the PCB.

Potentiometers: Four (4) potentiometers (variable resistors) located near the top right corner of the PCB, next to the group of four jumper pins.

Specifications

* **Part Number:** IS200SSCAH2AGD

* **Manufacturer:** General Electric

* **Series:** Mark VI

* **Product Type:** Serial Communication I/O Terminal Board

* **Availability:** In Stock

* **Product of Origin:** United States (USA)

Functional Description

The IS200SSCAH2AGD is a Simplex Serial Communication Input/Output (SSCA) terminal board designed by General Electric. It is a small board featuring up to six communication channels, with each channel configurable to send RS-232C, RS-485, or RS-422 signals. It is compatible with the PSCA I/O pack, which connects to the controller via Ethernet and plugs into the board's DC-37 pin connector.

Installation

* **Mounting:** The board is mounted on a DIN-rail using a sheet metal carrier and a plastic insulator mount, or it can be bolted directly into a cabinet.

* **Wiring:** It features a 48-terminal right-angle header that accepts various commercially available pluggable terminal blocks.

* **Cabling:** The board typically uses #18 AWG shielded twisted pair wiring.

* **Grounding:** E1 and E2 serve as mounting holes for chassis ground, and a shield ground must be connected to one of the SCOM terminals (37-48).

Operation

* **Channels:** There are six serial communication channels, each with six connection points including four signal lines (A-D), a signal return (RET), and a shield common (SCOM).

* **Termination:** For RS-422 or RS-485, termination resistors are required at either end of a transmission line. The board provides selectable termination resistors, which are disconnected by default.

* **Configuration:** Jumpers are used to configure the board. Specifically, jumpers JP1A-JP6A apply/remove termination resistors for lines A and B, while JP1B-JP6B do the same for lines C and D. Jumpers JP1R-JP6R determine if the return is resistive or capacitive to SCOM.

Characteristics

* **Channels:** Six
* **Maximum Drops (RS-422/RS-485):** Eight
* **Size:** 15.9 cm high x 10.2 cm wide
* **Technology:** Surface-mount
* **Operating Temperature:** -30 to 65 °C

Diagnostics

* **ID Device:** The PSCA I/O pack interrogates a read-only chip (ID device) on the terminal board.
* **Fault Handling:** The ID device contains the board's serial number, type, revision number, and J connector location. A hardware incompatibility fault is generated if the I/O processor detects a mismatch.

Features

* **Connectors:** A 37-pin female cable connector occupies one long edge of the board, with a 48-position terminal block on the opposite edge.
* **Mounting Features:** The board includes drilled holes for terminal connectors and larger round cutouts on the short edges to facilitate easier mounting.
* **Integrated Circuit:** A read-only memory chip (U1) is located next to the 37-pin connector.