GE Service Manual

DS200CTBAG1A

1. Description

DS200CTBAG1A Technical Specifications

2. Specifications

Specification	Value
Manufacturer	**GE General Electric**
Series	**Mark V**
Part	**Number DS200CTBAG1A**
Functional	**Description Analog Termination Module**
Functional	**Acronym CTBA**
PCB	**Coating Normal Coating**
Functional	**Revision 1 A**
About	**the DS200CTBAG1A**
The	**DS200CTBAG1A is a Analog Termination Board (CTBA) used in SPEEDTRONIC Mark V LM Turbine Control systems. Information about this card can be found in the Functional Manual, Winsys Edition GEH-6153. This DS200CTBAG1A printed circuit board product offering's greater Mark V Series, as you can probably tell by its name, has specific applications in the management and control systems of wind, steam, and gas turbine automated drive assemblies, and is additionally one of the final General Electric Mark product series to make use of the company's patented style of Speedtronic control system technology.**

3. Product Information

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Hardware Tips and Specifications

The DS200CTBAG1A is a printed circuit board that is a part of the GE Speedtronic MKV Gas turbine control system. It is meant to be a termination board for the system’s common data processor. This card is located within the C core of the system. Its main terminal signals are:

Ma. Input

Ma. Output

communication link to IONET

communication link to ARCNET processor.

There is an RS-232 9-pin d-shell connection serial port on the card that will allow for TIMN diagnostics. There are two factory drilled holes on each of the short ends of the card that are used for mounting it into place. There is also a total of 23 red varistors on the board and seven diodes. There are also a number of resistors in this DS200CTBAG1A PCB's assembly; these resistors, similarly to this DS200CTBAG1A PCB's capacitors and diodes, have been placed in the assembly of this DS200CTBAG1A product offering to offer basic residual voltage limitation and suppression.

This DS200CTBAG1A's role as a Termination Module or Analog Termination Board necessiates the inclusion of many Mark V Series connectors in its assembly. Some of these connectors include:

The 8PL STCA Board IONET Signal Connector

The JAA TCCA Board Output Signals Connector

The JAI COREBUS Connector

The JAJ COREBUS Connector

The JBB TCCA Board Shaft Voltage and Current Signals Connector

The JEE STCA Board COREBUS Connector

The JPD TCPD Board Power Signal Connector

The JX TCDA Board IONET Signals Connector

The 6PL Connector

All of the various connectors available to the assembly of this DS200CTBAG1A Termination Module have been named through a combination of their factory-printed nomenclature labels, specific applications to the DS200CTBAG1A Module, and interfacing potentials with other Mark V Series component printed circuit boards. The 6PL Connector made available to this DS200CTBAG1A Termination Module or Analog Termination Board has not been named as such given the fact that it exists as a vestigial structure, typically going unused during normative functionality of the DS200CTBAG1A Termination Module.

In addition to the various connectors included in this DS200CTBAG1A product offering's assembly, this DS200CTBAG1A PCB makes use of several manually-moveable hardware jumpers for customization purposes. The jumpers labeled BJ1-BJ14 aid this DS200CTBAG1A PCB by connecting the NEG input of its respective mA inputs to the DCOM. The BJ15-labeled hardware jumper available with this product offering crucially connects the RS232 Monitor Port to this mentioned DCOM.

Before making any final purchase decision on this DS200CTBAG1A product offering, its is important to note that it has been edited from its originally-introduced performance specifications and dimensions through its possession of a singular A-rated functional product revision.

Part No: DS200CTBAG1A

Manufacturer: General Electric

Function: Termination Board

Series: Mark V LM

Operating temperature: -28 to 55°C

Board Size: 6.25 in x 4.25 in

Product of Origin: USA

Manual: GEH-6153

Overview

DS200CTBAG1A is an Analog Termination Module manufactured and designed by General Electric as part of the printed wiring terminal boards used in the Mark V LM Controller. The R5 core houses the Analog Termination Module (CTBA). The shaft voltage and shaft current connectors, as well as the 4-20 mA output and input, are all located on the CTBA terminal board. The CTBA board also houses the connections for IONET to the STCA board and COREBUS to the QTBA board on R1. The TCPD board in PD is connected to CTBA through the Mark V LM power source monitoring. If CTBA loses power, a bypass relay enables COREBUS to communicate.

CTBA CONNECTIONS

8PL: Transports the IONET signals from the R5 core to the STCA board.

JAA: Carries in the R5 core the 4-20 mA outputs from the TCCA board.

JAI: If it is not in use, a termination resistor should be added. Used for the COREBUS connection.

JAJ: If it is not in use, a termination resistor should be added. Used for the COREBUS connection.

JBB: Carries the shaft voltage and current signals, as well as the 4-20 mA inputs, to the TCCA board in the R5 core.

JEE: Connects the STCA board in the "R5" core with the COREBUS signals.

JPD: Carries in the PD core the 24 V dc power signal from the TCPD board.

JX: Connects the TCDA board in the Q51 core with the IONET signals.

CTBA HARDWARE CONFIGURATION

BJ1 through BJ14: Connects the respective mA input's NEG terminal to DCOM.

BJ15: Connects the DCOM to the RS232 Monitor Port (TIMN).