TeleControlNet

Inter Act
industrial automation

Datasheet TeleController TC401

Introduction

The is the most powerful TeleController of a series of Remote Terminal Units (RTU) that Inter Act has developed for telemetry over internet. Out of the four different TeleControllers available, the TC401 provides the best connectivity, mass storage capacity, and high processor power. Therefore the TC401 is best suitable for larger and more complex processes.

It can be used stand alone, or it can be connected to a private and secured domain in TeleControlNet. TeleCotrolNet is a Software as a Service (SaaS) for WEBscada and WEBmes applications.

Main functions

The TC401 enables controlling and monitoring of remote processes and machines. This TeleController is the gateway between the local process controller (e.g. PLC) and the internet or TeleControlNet. The TC401 can communicate real time with virtually any existing process controller. This connection does not require any change of the existing software on the local process controller. The connection with TeleControlNet can be realized via a mobile 3G APN Network or DSL.

The TC401 performs three major tasks:

- It locally stores process data.
- It receives remote user controls to be submitted to the local process controller.
- It sends process alarms in real time to TeleControlNet.

Main features

- Single board PC for 35 mm DIN rail mounting, including internal 3G modem.
- Applicable in PLC control systems as HMI (WEBscada) terminal.
- Can also be supplied without WEBscada software.

Processor

Intel® Atom™ processor

The Intel® Atom™ D525 processor supports one channel of 667 MHz DDR2 SDRAM up to 4 GB. The chipset features power-efficient graphics with an integrated 18-bit 3D graphics engine based on the Intel® Graphics Media Accelerator (GMA) 3150 architecture with a VGA display port. The Direct Media Interface (DMI) is designed into the Pineview-D D525 processor to provide an efficient high-bandwidth communication channel between the processor and the ICH8M.

Embedded Intel® ICH8M

The board integrates the Intel® ICH8M. It provides I/O capabilities and flexibility via high-bandwidth interfaces such as CF, ethernet, Mini PCI, Mini PCIe, Serial ATA and USB 2.0.

Specifications

CPU

- Intel® Atom™ D525 dual-core processor, 1.8 GHz, 1 MB cache

Chipset

- Intel® ICH8M

System memory

- One 200-pin 667 MHz DDR2 SDRAM SO-DIMM, 2 GB

Graphics

- Integrated Intel® extreme GMA 3150 technology

Supported frequency bands

- GSM/GPRS/EDGE: 850/900/1800/1900 MHz
- UMTS/HSDPA/HSUPA: 800-850/900/1900/2100 MHz (B1, B2, B5, B6, B8)

Max connectivity speeds

- GSM: 14.4 Kbps DL/14.4 Kbps UL
- GPRS: 85.6 Kbps DL/85.6 Kbps UL (class 12)
- EDGE: 236.8 Kbps DL/236.8 Kbps UL (class 12)
- UMTS mode: 384 Kbps DL/384 Kbps UL
- HSDPA mode: 14.4 Mbps (Cat 10) downlink speed
- HSUPA mode: 5.76 Mbps (Cat 6) uplink speed
- HSPA+ Rel 7 SW features CPC (DTX/DRX), HS-SCCH-less operation, Enhanced CELL_FACH, Enhanced L2, EF-DPCH

Max RF output power

- Power Class 1 (1 W, 30 dBm) for GSM/GPRS 1800/1900 Mhz bands
- Power Class E2 (0.5 W, 27 dBm) for EDGE 850/900 MHz bands
- Power Class E2 (0.4 W, 26 dBm) for EDGE 1800/1900 MHz bands
- Power Class 3 (0.25 W, 24 dBm) for UMTS 850/900/1900/2100 MHz bands
- Power 32 mW (15 dBm) for WiFi (GTM671/GTM679 only)

External I/O

- 1 x 3G antenna
- 3 x Gigabit ethernet (Intel® 82583V controller)
- 1 x GPS antenna
- 1 x PS/2 keyboard
- 1 x PS/2 mouse
- 2 x RS232
- 1 x RS232/422/485
- 2 x USB 2.0
- 1 x VGA
- 2 x Wi-Fi antenna

- **ACPI 2.0 compliant power management, supports power saving mode**

- **Chipset integrated Real Time Clock (RTC) with onboard lithium battery**

- **System reset programmable watchdog timer (timeout: 1 to 255 s or min.)**

Dimensions

- Height: 158 mm (6.2")
- Width: 56 mm (2.2")
- Depth: 130 mm (5.1")

Weight

- Approximately 615 g

Supply voltage

- 9 to 24 VDC

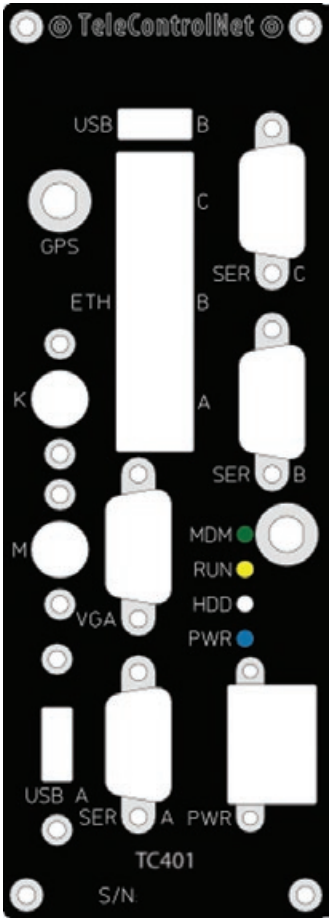
Supply current

- 1.0 A @24 V - full load
- 0.7 A @24 V - nominal

Temperature

- Operating: 0 to 60 °C
- Storage: -20 to 85 °C

Front panel overview



Notes

Inter Act industrial automation B.V.
Dijkgraafweg 16, 7336 AT Apeldoorn - P.O. Box 1011, 7301 BG Apeldoorn - The Netherlands
Tel.: +31 (0)55 534 2002 - Fax: +31 (0)55 534 2010 - www.interact.nl - info@interact.nl

Copyright ©2018 Inter Act industrial automation B.V. All Rights Reserved.

The information in this document is subject to change without prior notice in order to improve reliability, design and function and does not represent a commitment on the part of the manufacturer.

In no event will the manufacturer be liable for direct, indirect, special, incidental or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means in any form without prior written permission of the manufacturer.

v2.1