

Data sheet

ADAX3



Hardware characteristics

ADAX3 is an embedded Computer, with an on-board FPGA based SoC (SSoc) for flexible customizations. It is Form, Fit and Function compatible with ADAX2-B.

It has the following characteristics:

- ▶ Dual Core Cortex A9 processors @ 666 MHz.
- ▶ 512MB DDR3 RAM, clocked at 533 MHz
- ▶ 16 MB QSPI Flash for ROM
- ▶ 2 GB NAND Flash
- ▶ CFast slot (SATA)
- ▶ Up to 2 10/100/1000 Mbit/s Ethernet on M12 connector
- ▶ 2 USB 2.0 port
- ▶ 1 insulated Front Panel USB-Serial interface for console/diagnostic
- ▶ RS485/RS232/RS422 insulated serial interfaces (16550 UART) with automatic RTS control
- ▶ Different number of serial interfaces available, depending on installed I/O Module, up to 5
- ▶ Insulation: 500V
- ▶ MVB interface
 - ▶ Depending on installed I/O Module
 - ▶ Different MVB classes available. Bus Administration feature is also available.
 - ▶ An independent microcontroller can handle MVB real-time operations
- ▶ 4 Input, 4 Output insulated GPIO
- ▶ LTE, UMTS, GPRS, GSM-R Modem support
- ▶ User accessible EEPROM and temperature sensors
- ▶ IEEE 802.11 a/b/g/n (WiFi) client (1 external SMA antenna)
- ▶ GPS/Glonass/Galileo high precision receiver

Please consult *ordering information* for available build options



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Embedded Computing Solution

Environmental and electrical characteristics:

- ▶ **Power Supply**
 - Standard: Min +9V, max +48 VDC
 - INT24 : Min +9 V, max +48 VDC
 - High Voltage: Min +49V, max 88V
- ▶ Maximum power supply glitch with no power > 20 ms
- ▶ Operating temperature -40°C to +72°C, according to EN50155 class TX
- ▶ Storage temperature -40°C to +85°C, according to EN50155 class TX
- ▶ Humidity (non condensing), according to EN50155 class TX
- ▶ **MTBF**
 - 155440 hours at 40° C
 - 203610 hours at 30° C
- ▶ **Power Consumption**
 - Max: 10 W
 - Typ: 7 W
- ▶ **Vibration, Shock (permanent) and Shock (single):**
 - According to
 - IEC 60068-2-64:2008
 - EN 61373:2000 Cat.1 Cl.B
 - Worst case value for all axis
- ▶ **GPIO**
 - External Pwr:
 - Nominal 24 VDC
 - Range 12 V to 50 V
 - Vihmin : 14 VDC
 - Vihmax : 44 VDC
 - Vilmin : 0 VDC
 - Vilmax : 4 VDC
 - Voh : external power

High Voltage configuration

With the -HV build option Adax3 supports as input range tensions from 49 V to 88 V (DC). This configuration fully respect the EN50155 specification for input voltage of 24 V and 75 VDC inputs.

The high voltage module is fully isolated with the following characteristics:

- ▶ Isolation test voltage (Flash tested for 1 second) : Min 4000 VAC
- ▶ Resistance (VIDO = 500 VDC) : 2 GOhm typ.
- ▶ Capacitance: 60 pF typ.

Please contact directly LVD Systems for any other information needed for this product



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