

Model 2070-1C CPU and 2070-1CLS CPU less Ethernet Switch



▶▶ The 2070-1C CPU and 2070-1CLS CPU modules combine the flexibility of open architecture hardware with the power and performance of our 2070 software packages.

About 2070 1C

The new Safetran model 2070-1C and 2070-1CLS CPUs have been designed to meet the Caltrans TEES 2009 specification for the optional 2070 1C CPU. The CPU module meets or exceeds all TEES and NEMA functional and environmental requirements for traffic signal hardware. These CPUs, which includes the Linux multi-tasking operating system, provides a true, industry standard, open architecture platform.

The 2070-1C and 2070-1CLS CPUs may be configured with Econolite's highly capable ASC/3-2070 Linux version software package, or any industry-available 2070 software meeting current Caltrans TEES 2009 (errata 1) specifications that have been configured to operate on Econolite's 2070-1C or 2070-1CLS CPUs.

The 2070-1C or 2070-1CLS CPUs are designed to operate in the 2070E or the 2070LX chassis. The 2070 -1C Host board provides two Ethernet switches used to route the ENET1 and ENET2 signals from the Engine Board to the front panel RJ-45 connectors and Serial Motherboard connector. (Note: the 2070-1CLS Host Board does not include the two Ethernet switches. Instead the ENET1 and ENET2 signals from the Engine Board route directly to two RJ-45 connectors on the front panel.)

At A Glance

- ▶ Open architecture design:
- ▶ Linux real-time multi-tasking operating system and ATC compliant Board Support Package (BSP.)
- ▶ PowerPC with QUICC engine
- ▶ Meets Caltrans TEES 2009 (errata 1) specifications



Special Features

- Supports ASC/3-2070 Linux software, or any pre-qualified 2070-1C CPU specified software
- ATC Engine board
 - Fully compliant with the ATC Standard version 5.2b.
 - Includes a Freescale MPC8321E or MPC8323E, PowerPC processor with QUICC engine
 - 64 Mbytes of DDR2 DRAM memory for application and OS program execution
 - 64 Mbytes of FLASH for storage of OS Software and user applications
 - 2 Mbytes of SRAM memory for non-volatile parameter storage
 - Provides the Standby Power (VSTANDBY) required for supporting the SRAM and RTC
 - Software settable, hardware RTC that meets the requirements of the ATC Standard except that in the absence of VPRIMARY, the RTC operates from VSTANDBY
 - One USB 2.0 compliant port
 - Two 10/100 Ethernet ports
- Host Board
 - Single board module meeting Caltrans 2X WIDE board requirements
 - Provides two DIN sockets and mounting standoffs for the connection of the 2070-1C Engine Board
 - Two Ethernet switches used to route the ENET1 and ENET2 signals from the Engine Board to the front panel
 - (Note: the 2070-1CLS Host Board does not include the two Ethernet switches. Instead the ENET1 and ENET2 signals from the Engine Board are routed directly to two RJ-45 connectors on the front panel.)
 - Datakey Receptacle capable of hosting 3.3VDC Datakeys
 - An industry standard SD Card socket

Basic Specifications

► Temperature

- ⦿ -34.6°F to +165°F (-37°C to +74°C)

- Front panel
 - USB port compliant to the ATC Standard V5.2b
 - Three ETHERNET ports from the Ethernet switches on the Host Board These Ethernet ports support ENET1 and ENET 2 from the Engine Board
 - CPU supports from a 2 through 32MB Datakey
 - C13S Port – The front panel provides a DB-25 connector that supports the SP8 circuitry on the Host Module
 - Tri Colored LED – The front panel shall include a green/yellow/red LED to indicate the status of the controller.
- Operating system
 - Linux 2.6.3x or later kernel and Board Support Package (BSP)
 - Compliant to ATC Standard V. 5.2.b Annex B specifications
 - Easy software upgrade can be done via USB memory stick, or can be done via Windows Software over Ethernet

