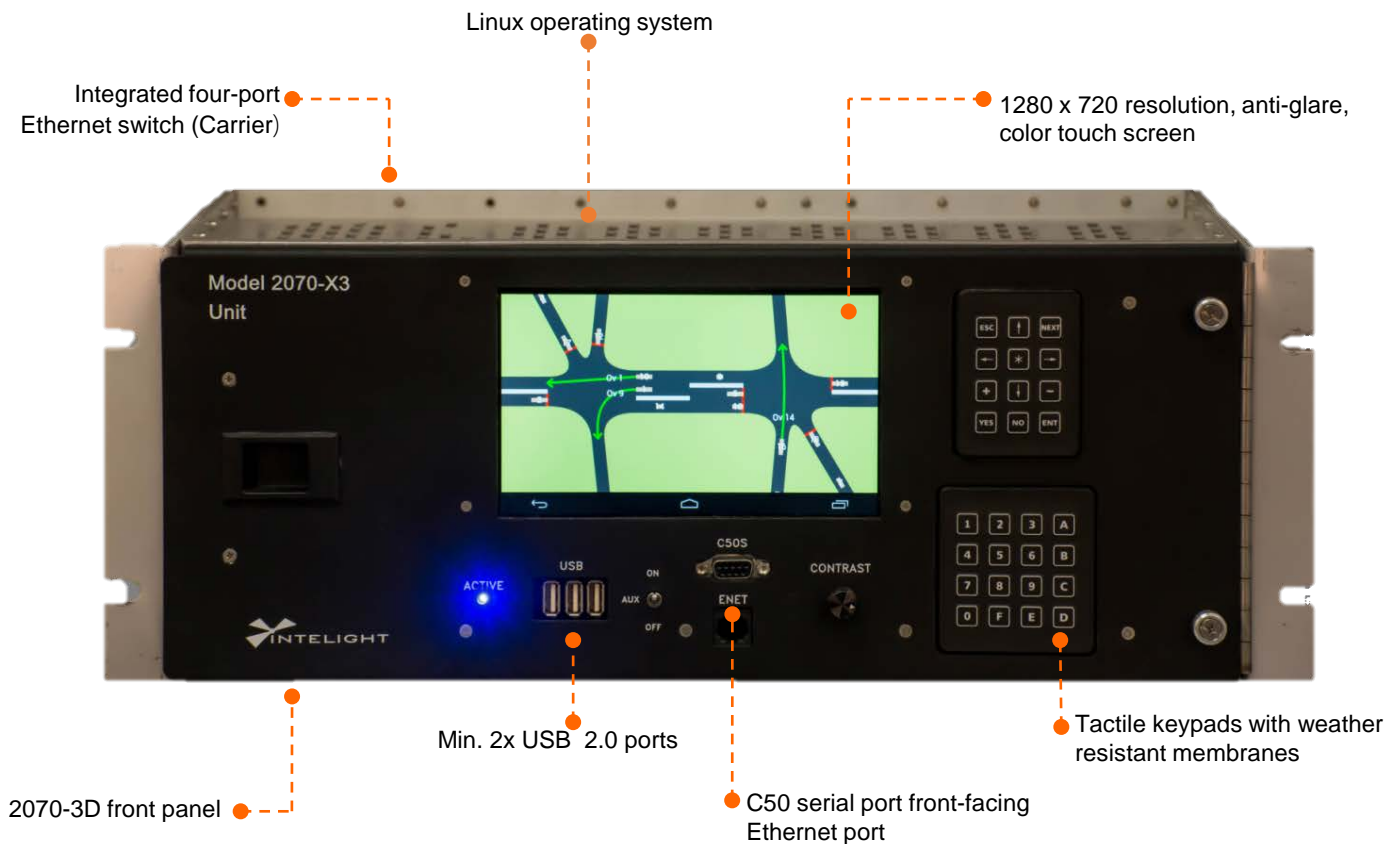


Overview

The 2070 X3c controller is part of Intelight's award-winning "X-Series" CalTrans/170/33X controller line. The 2070 X3C meets and exceeds the current ATC, CalTrans and NTCIP standards, providing agencies with a robust, industry-leading, true open-architecture hardware platform. The X3C runs Linux on an ATC-compliant motherboard offering speed, performance and multi-thread capabilities for today and the future. The layout of the ports provides front-facing access of the Ethernet ports, USB and serial connections. The 2070 X3C includes a large backlit 1280 x 720 resolution, anti-glare, color touch screen used for advanced signal timing analytics and software status/configuration.



Modern platform

- Compliant with latest ATC 5201 and Caltrans 2009 TEES (2070-1C)
- Open Linux O/S architecture with ATC 5401 standard API for hosting various software applications
- Runtime libraries per ATC 5201 standard
- Full support for all required ATC 6.1 software drivers under the latest Linux kernel release v 3.2
- Configurable 170, 170E, 2070, NEMA TS-1, TS-2 Type -2 parallel interfaced cabinet applications
- Configurable for NEMA TS-2 Type 1 and ITS serially interfaced cabinets applications (ITS v1 and v2-ATC)
- Heavy-duty model 2070-4A power supply
- Environmentally hardened (operating ambient temperature from -40C to +80 C)



Robust hardware

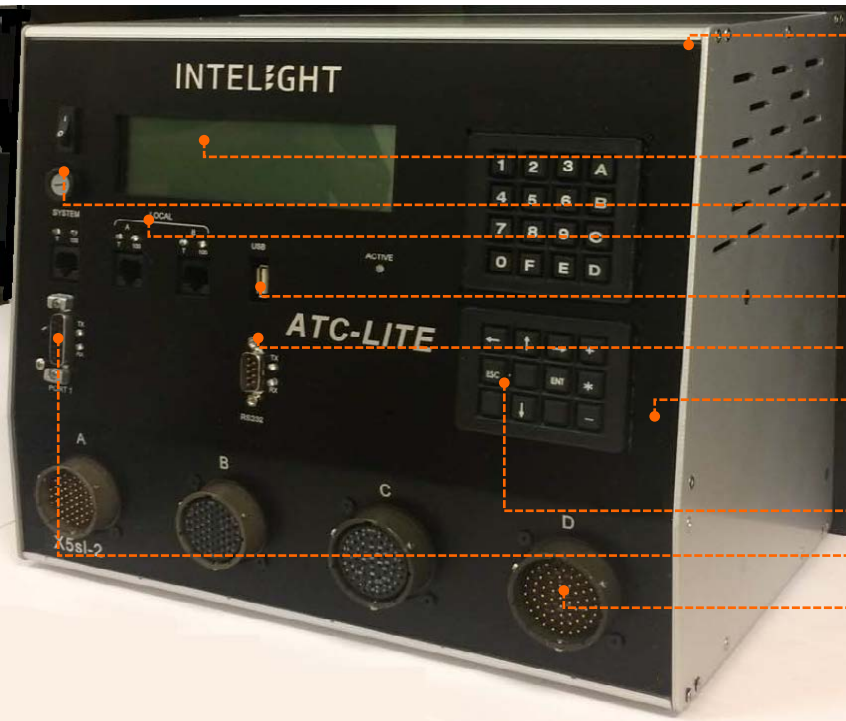
- 2070 X3C Includes 2070-2A field I/O module for parallel interface to 170/170E/2070 cabinets
- 2070LDX-2N includes 2070-2N field I/O module for serial interface with ITS and NEMA TS-2 type 1 cabinets
- 2070LDX-N includes 2070-N1 extensions for TS-1 & TS-2 type 2 cabinets
- 2070LDX-B includes 2070-2B field I/O module for interface to ITS cabinets and other RS-485 peripherals

2070-1C CPU Card

- 2070 slot carrier module with front panel support for
 - 2070 standard 1X module
 - 3.3v DataKey socket
 - 4x RJ45 Ethernet ports (ENET 1 and 2)
 - TEES compliant D type 25pin C13S port
 - Fully compliant to latest Caltrans TEES 2070
- Engine board CPU module:
 - RAM: 64Mb
 - Flash Memory: 64Mb
 - Processor: Freescale MPC8248
- Fully 2070 hardware and software compliant with latest national ITE/NEMA/AASHTO 2070 standard
- 7 serial ports (SP1-6, SP8)
- RTC time reference with extended hold up

Overview

The X-5sl Controller is part of Intelight's award winning "X-Series" Controller Line. The X-5sl meets and exceeds the current ATC standards providing agencies with a robust, industry leading, true open architecture hardware platform. The X-5sl can help agencies organize and improve operations and reduce the amount of equipment in the signal cabinet. Use the X-5sl to manage Ethernet traffic, monitor CCTV or Detection camera video, enter cabinet and maintenance logs directly into the controller (syncs with Central), and integrate with other products via optional MaxTime onboard web server, all while running traffic signal operations. Contact Intelight today to see how the X-5sl Controller can help update your signal operations system to 21st century technology.



Linux Operating System with 128 MB DRAM | 64 MB Flash Memory and MPC 8248 32-bit Processor (750 MIPs)

240 pixel X 64 pixel OLED graphics display

Front Panel power switch

Three Ethernet Ports

One USB Port

One Aux Serial Port

Integrated CPU/Front Panel board with 4 port Ethernet switch w/2 subnets, three external Ethernet ports, USB Port, SDLC Port and Auxiliary Serial Port

Two Tactile Keypads (4X4 & 3X4)

NEMA TS-2 Type 1 compliant SDLC Port

Optional NEMA TS-2, Type 2 (TS-1) 'A,B,C' Mil. Spec. Connectors 'D' Connector TEES 2009 Compliant (X3 Type 2 (or standard NEMA Type 1 'A' power connector)

Highlights

- Compliant to ATC 6.2x (latest draft) and ATC API Standards
- Linux Operating System (uClibc or glibc library options)
- Support TS-1 and TS-2 Type 2 A,B,C & D connector operation (requires X5sl-2)
- Supports Serial and/or Ethernet Communications
- API interface library
- 2070LX compatible display and keypad interface
- Optional MaxTime Local Controller Software with:
 - ✓ 40 Phases, 16 Rings, 32 Overlaps, 16 Preempts
 - ✓ Monitor and configure timings wirelessly from a laptop, tablet, or smart-phone without database editor or 3rd party software
 - ✓ Built-In Master/Closed Loop Functionality
 - ✓ Peer to Peer communications
- Locally Adaptive Transit Priority

Modern platform

Supported Standard Specifications:

- ATC 6.2x (latest draft)
- API (FIO & FP Interface)
- NEMA TS2 Type 1 & Type 2 cabinet interfaces
- NTCIP – 1202 ASC, 1201, and Base Stds.

Open Architecture

- Linux Operating System
- Software Development Kit (SDK) provided at no charge to qualified ATC software developers
- uClibc or glibc library options

Faster processing and more controller memory

- Motorola PowerPC 8248 32-bit (750 MIPS at 400 MHz) Processor
- 64MB Flash / 128MB DRAM
- Network Switch w/ two independent subnets
- Three 10/100 Mbit Ethernet Ports
- One USB Port

Robust hardware

- Built with current, industry standard technology
- Compliant with NEMA Environmental Requirements
- Temp Range: -40°C to +80°C
- Size: 9.75" H x 8.5" D x 12.25" L
- Three 10/100 Mbit Ethernet ports
- One external SDLC Port (NEMA Port 1)
- Variable Power Supply (95-250 VAC 50/60 Hz auto sensing)

Features and usability

- Optional MaxTime Software w/On Board Web-Server - Monitor and manage traffic signal without the need for additional software
- Caltrans compliant TEES 2070L Text Interface (8X40)
- USB Support per latest ATC standard
- Software support for external WiFi & GPS devices (external devices sold separately)
- Install traffic signal software from USB memory stick
- Transfer timing databases via USB memory stick
- Live MaxTime Software Updates
- Schedule MaxTime Software Updates
- Download MaxTime Update Package Remotely
- Perform MaxTime Firmware/Operating System Updates without Placing Controller in Flash

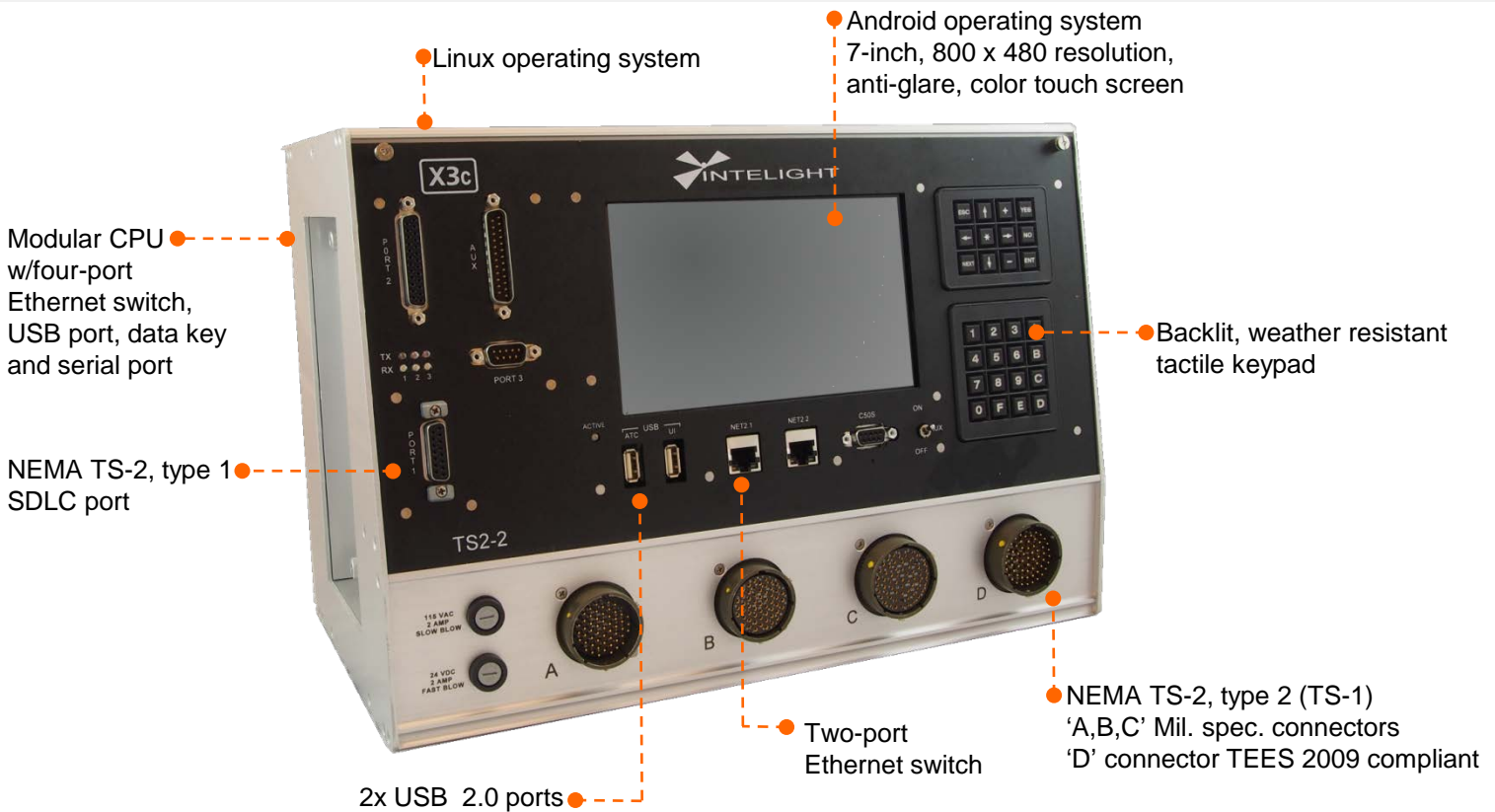


Front Panel: MaxTime Main Menu



Overview

The X3c controller is part of Intelight's award winning X-Series NEMA controller line. The X3c meets and exceeds the current ATC, NEMA and NTCIP standards providing agencies with a robust, industry-leading, true open architecture hardware platform. Use the X-3C to manage Ethernet traffic, monitor CCTV or detection camera video, enter cabinet and maintenance logs directly into the controller (syncs with central), and integrate with other products via android applications, all while running traffic signal operations. The X3c includes a large backlit 1280 x 720 resolution, anti-glare, color touch screen used for advanced signal timing analytics and software status/configuration when used in conjunction with MaxTime 2.0.

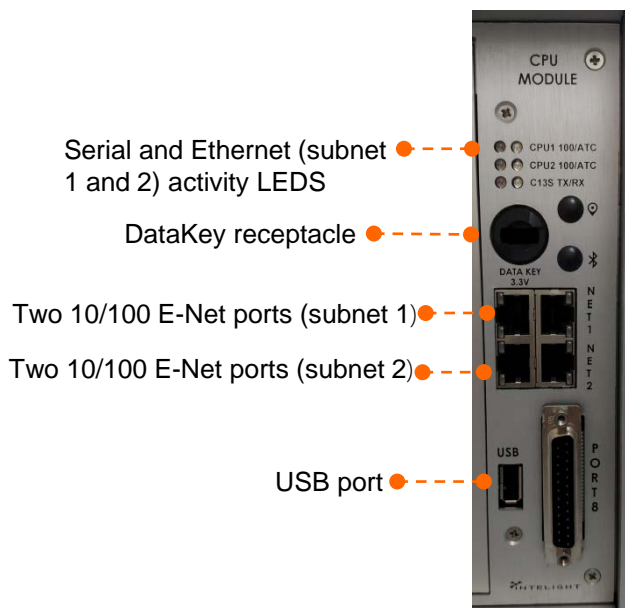


Highlights

- Compliant with NEMA TS-2 and ATC 5201 and 5401 standards
- Linux operating system
- Two independent 10/100 Mbit network cards
- TS-1 and/or TS-2 operation (requires type 2)
- Supports serial and/or Ethernet communications
- 2070 hardware expansion bay for device integration
- MaxTime local controller software
- 40 phases, 16 rings, 32 overlaps, 16 preempts
- Monitor and configure timings wirelessly from a laptop, tablet or smartphone without database editor or third-party software
- Built-in master/closed loop functionality
- Peer-to-peer communications
- Advanced TSP included

Modern platform

- Supported standard specifications:
 - ATC 5201 (v6.24)
 - ATC 5401 (v2.17) API (FIO & FP interface)
 - NEMA TS2 with NTCIP (type 1 & type 2)
 - NTCIP – 1202 ASC, 1201, and base standards
 - NTCIP – 1210 master control
- Open architecture
 - Linux 3.2 operating system
- Faster processing and more controller memory
 - Motorola PowerPC 8248 32-bit (750 MIPS at 400 MHz) processor
 - (64MB flash/64MB DRAM)
- Two independent network adapters
 - 2 10/100 Mbit ports on controller front panel (subnet 2)
 - 4 10/100 Mbit ports on CPU module (see figure below)
- Two-port USB hub (front panel) + CPU USB
- Six config. serial ports (5 are SDLC capable)
- ATC/2070 comm./modem slot
 - Optional 2070-6A/B, 2070-7A/B modules
 - Optional 2070-7T w/GPS time clock module



Robust hardware

- Built with current, industry standard technology
- Compliant with NEMA environmental requirements
 - Temp range: -40°C to +80°C
 - TS-2 type 1 size: 8 ½”H x 8 ½”D x 14 ¾”L
 - TS-2 type 2 size: 10 ¾”H x 8 ½”D x 14 ¾”L
 - Two-port 10/100 Mbit Ethernet ports
 - Variable power supply (95-250 VAC 50/60 Hz auto sensing)

Features and usability

- On-board web server - Monitor and manage traffic signal without the need for additional software
- Eight programmable special function key sequences” provide shortcuts to software menus
- Android color touch screen/user interface
 - 7-Inch touch screen
 - 800 x 480 resolution
 - Fully functional Android 6.0 interface with third party application support
- USB support
 - Install/update traffic signal software
 - Transfer timing databases via flash drive
 - Configure and monitor timings via Wi-Fi adapter from computer, tablet or smartphone without additional software or database editor
- Live software update
 - Schedule software updates
 - Download update package remotely
 - Perform firmware and operating system updates without placing controller in flash