

# OPTICORE™ SS-561TX

## Small Application Controller

The OEMCtrl OptiCORE™ SS-561TX is a high-performance, BACnet native direct digital controller (DDC). It provides speed, power, memory, and I/O flexibility in a compact package. The SS-561TX is targeted for controlling HVAC equipment with small I/O point counts. Made with integration in mind, the SS-561TX can integrate with building automation systems via BACnet (IP or MSTP) or Modbus (IP or serial). The dual IP ports provide the ability to take advantage of a daisy-chain topology.

## Key Features and Benefits

### Performance / Hardware

- Built-in End of Network switch for easy configuration on a BAS network
- Flexible, color-coded and easy to wire I/O
- Program and historical data stored in non-volatile memory, eliminating the need for batteries

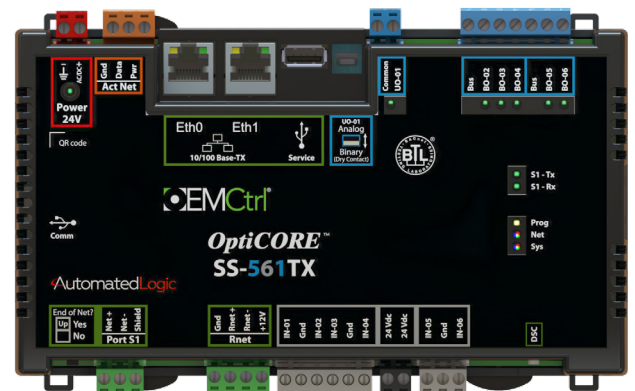
### Communication Features:

- 2 Configurable Communication Ports
  - Eth0 & Eth1: Daisy Chain 10/100 Base T Ethernet Ports for BACnet or Modbus communication, includes DHCP addressing
  - Port S1: EIA-485 for serial BACnet or Modbus BAS connection or for Modbus to a 3rd-party device (up to 200 points)
- 3 Dedicated Communication Ports
  - Service Port: USB-A for technician access or EQT2 touchscreen connection
  - Rnet: For the ZS communicating sensors or EQT2 touchscreen connection
  - USB Comm Expansion Edge Connector Port: For comm expansion

### Service & Usability Features:

- Fully programmable using our powerful EIKON® graphical programming tool
- Flexible site-specific archiving supported allowing for restore points to be created with a variety of ways to trigger the restore point and recover to that archive
- Unique permissions framework provides protection for intellectual property (IP) while allowing for seamless connection of controllers to the WebCTRL® (Automated Logic) or i-Vu® (Carrier) building automation systems
- Existing control programs are easily converted and supported in the new hardware

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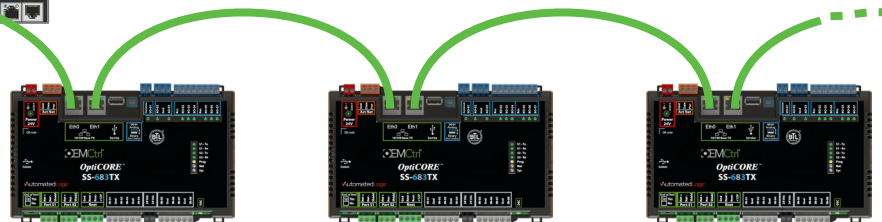
## Modbus

Support for EQT2 touchscreens



## EQT2-7

Support for Daisy-chain Ethernet



Support for 3rd-party devices (up to 200 points) on Port S1

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# Specifications

Power	24 Vac / 24 Vdc $\pm$ 10%, 50-60 Hz, 55 VA / 20 W, single Class 2 source only
Operating Range	-40° to 158° F (-40° to 70° C); 10 to 95% relative humidity, non-condensing
Universal Inputs (6) (Software selectable)	6 Universal Inputs electronically configurable to any of the following types: Dry   Pulse Counting   Thermistor   0-10 Vdc @ 20mA  <b>24VDC auxiliary sensor power (2):</b> 24Vdc @ 100mA total current capacity
Outputs (6)	<b>1 Universal Output</b> selectable to 0-10 Vdc (5 mA max), PWM, or Dry Contact Rated @24VAC 1Amp <b>5 Digital Outputs</b> (Dry Contact) Rated @24VAC 1 Amp. Configured normally open Status LED for all outputs
Communication Ports	<b>Eth0 &amp; Eth1:</b> Dual 10/100 BaseT Ethernet ports for BACnet/IP or Modbus IP communications. Includes built-in fail safe and supports direct connection or daisy chain topology natively using BACnet/IP. <b>Port S1:</b> High-speed EIA-485 port with End of Net switch. Configurable through browser. <ul style="list-style-type: none"> <li>BACnet MS/TP or Modbus RTU network at 9.6, 19.2, 38.4, 57.6, 76.8, or 115.2 kbps (supports automatic baud-rate configuration)</li> </ul> <b>USB Service port:</b> USB-A port for technician use and local EQT displays. Also supports connection of USB Flash drive for device recovery and USB Wireless Service Adapter <b>Rnet port:</b> Communicate with ZS communicating sensors and local EQT displays <b>USB Expansion port:</b> For communication expansion modules
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 3 days
Protection	Fast acting, 3A, 250VAC, 5mm x 20mm glass fuse to protect controller power input
Microprocessor / Memory	32-bit ARM Cortex-A8, 600MHz, processor with multi-level cache memory / 16 GBs eMMC Flash memory and 256 MB DDR3 DRAM
Compliance/Listing	Conforms to the BACnet Advanced Application Controller (B-AAC) Standard Device, as defined in BACnet 135-2001 2012 Annex L and tested to Protocol Revision 14 <b>United States of America:</b> FCC compliant to Title CFR47, Chapter 1, Subchapter A, Part 15, Subpart B, Class A; UL Listed to UL 916, PAZX, Energy Management Equipment <b>Canada:</b> Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX&, Energy Management Equipment <b>Europe:</b> Mark EN50491-5-2:2009; Low Voltage Directive: 2014/35/EU RoHS Compliant: 2011/65/EU <b>Australia and New Zealand:</b> C-Tick Mark, AS/NZS 61000-6-3

**BACnet**  
**Modbus**



**Physical**

DIN rail or Screw mounting

Minimum panel depth:  
2.75 in. (7 cm)

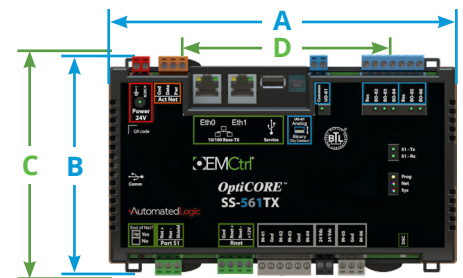
QR code on label to provide technician with access to MAC address, serial number and technical documentation

**Dimensions Overall**

**A:** 7.785 in. (19.77 cm)  
**B:** 4.89 in. (12.43 cm)  
**Depth:** 2.00 in. (5.09 cm)  
**Weight:** 1.6 lb. (0.82 kg)

**Screw Mounting**

**C:** 6.45 in (16.38 cm) (fully extended)  
**D:** 4.5 in. (11.43 cm)



Fire-retardant plastic ABS, UL94-5VA

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BACnet<sup>®</sup> is a registered trademark of ASHRAE.



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