

Micro850® Overview	2080-LC50-48xxx
Embedded communication	USB, Serial, Ethernet
Basic I/O size	48 points
Max number of I/O	Up to 132
Max number of Expansion I/O	4
Motion axis (Only available in model with transistor output)	Up to 3 axes

Micro850® Capacity

- LC50-48xxx has 140KB of memory and supports 5 plug in I/O modules & 4 expansion modules.
- Supports Ladder Programming, Function Block Diagram, Structured Text

Micro850® Configuration

- External Power Supply
- Embedded I/O 28 In, 20 Out, Base Analog I/O channels via plug in or expansion.
- Maximum Digital I/O :132,
- Max Expansion I/O Modules:4
- 6 High Speed Counters

Micro850® Performance

- Designed for larger standalone machine applications that require more I/O or higher performance analog I/O
- Number of I/O points embedded in the base 24,48 points

Stratix 2000 Configuration

- Unmanaged switches allow Ethernet devices to communicate with one another across networks
- Additional combinations of fast Ethernet, gigabit copper, and Small Form Factor Pluggable (SFP) ports are available for increased transmission wavelength, distance and speed across the network.
- Operating Temperatures of 0 to 60 °C (32 to 140 °F) for 5 and 8 copper port models.

Panelview™ 800 Performance

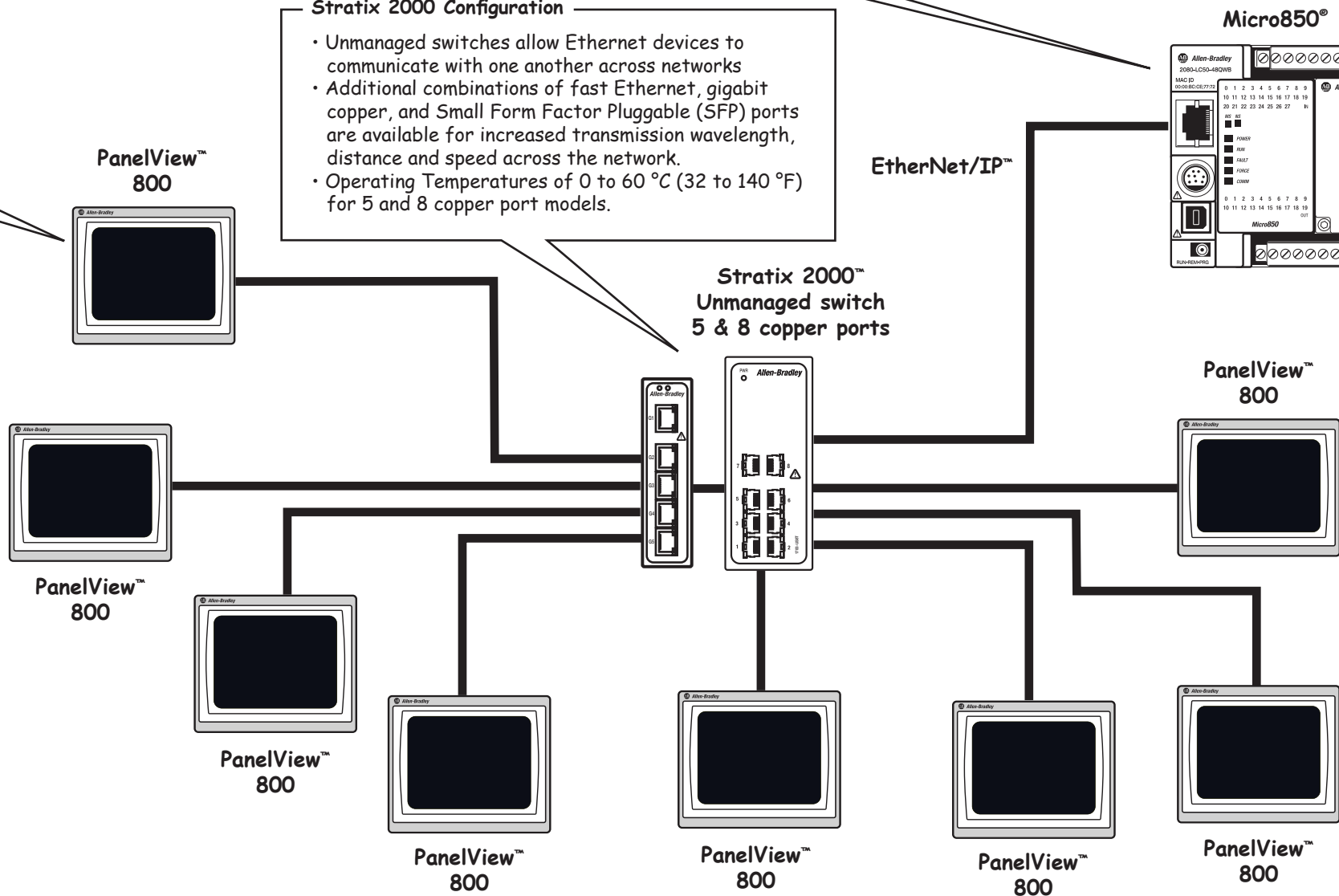
- 4, 7, 10 inch Display Sizes
- TFT touch screen, wide LCD

Panelview™ 800 Configuration

- Communicate to micro controllers (MicroLogix™, Micro800®) and other devices using serial (RS232, RS422/485) protocols and Ethernet
- Features include unicode language switching, alarm messages and history, and basic recipe capability

Panelview™ 800 Capacity

- Multi-communication protocols include Modbus RTU, Modbus/TCP
- USB port for transferring files or updating firmware , Supports micro SD memory cards



About this Configuration

This report documents the measured communications performance of up to eight PanelView 800 terminals communicating with a single Micro850® controller using EtherNet/IP.

Note: Performance is what we tested, not the max capacity



Micro800® Architecture for Panelview 800 Communication on EtherNet/IP™

Bill of Materials

Qty	Catalog #	Description
System: Controller Hardware		
1	2080-LC50-48QWB	Micro 850 Controller
1	2080-PS120-240VAC	Power Supply Module
HMI Hardware		
8	2711R-T7T	PanelView 800, 7in HMI Terminal, Touch Screen TFT, Serial and Ethernet ports
9	1585J-M8TBJM-1M9	Ethernet cables for connecting PanelView 800 terminals and Micro850 controller to switches
Switches Hardware		
1	1783-US5T	Stratix 2000 switch, 5 copper ports
1	1783-US8T	Stratix 2000 switch, 8 copper ports
1	1585J-M8TBJM-OM3	Ethernet Cable between the switches
Configuration Tool Required		
1	9328-SO001-EN-C	Connected Components Workbench software

About this Configuration

This report documents the measured communications performance of up to eight PanelView 800 terminals communicating with a single Micro850® controller using EtherNet/IP.

Software Setup

Each of the eight terminals is displaying a screen that is attempting to read 100 individual variables every 500 milliseconds from the Micro850. Wireshark software is used to determine how many reads are actually completed within a one minute snapshot of Ethernet traffic with the Micro850. From this data, the average number of variables read by each terminal every 500 milliseconds is calculated. Because the communications performance of the Micro850 is scan time dependent, measurements were made with the Micro850 in program mode (maximum performance) and in run mode, with logic scan times fixed at 10 milliseconds and 20 milliseconds.

Performance Table

# of PanelView 800 terminals	# of Variables on 500ms Scan per terminal (PROG mode)	# of Variables on 500ms Scan per terminal (10ms scantime)	# of Variables on 500ms Scan per terminal (20ms scantime)
1	100+	21.59	13.61
2	100+	21.49	13.87
4	100+	21.73	13.57
8	98	22.82	15.02

About the Products

Micro850 Controllers

- The Micro850 controller is equipped with the same form factor, plug-in support, instruction/data size and motion capabilities as the 24-pt and 48-pt Micro830 controllers
- Support up to four Micro850 Expansion I/O modules, Up to a maximum of 132 I/O points (with 48-pt model)
- Designed for larger standalone machine applications that require more I/O or higher performance analog I/O than supported by Micro830.
- Structured Text, Ladder Diagram and Function Block editors that support
- Symbolic addressing
- Connected Components Workbench software is used for PLC programming, HMI and Drives configuration

PanelView 800

- A full line of displays ranging from 4" to 10"
- Communicate to MicroLogix, Micro800 and SLC controllers via serial (RS232 or RS422/RS485) networks and EtherNet/IP.
- Features include unicode language switching, alarm messages and history, and basic recipe capability

Stratix Switches

- Stratix 2000 Unmanaged Switches offer no layer 2 or layer 3 management functionality, but offer lower cost.
- Stratix 6000, 5700 and 8000 Managed switches offer Loop Prevention, Security Services, Diagnostic Information, Segmentation Services(VLANs), Prioritization Services(QoS), and Multicast Management Services.
- Consider Network Address Translation (NAT), available with the 9300-ENA NAT device and the Stratix 5700 with NAT option, depending on your application requirements.

For More Information and Help

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