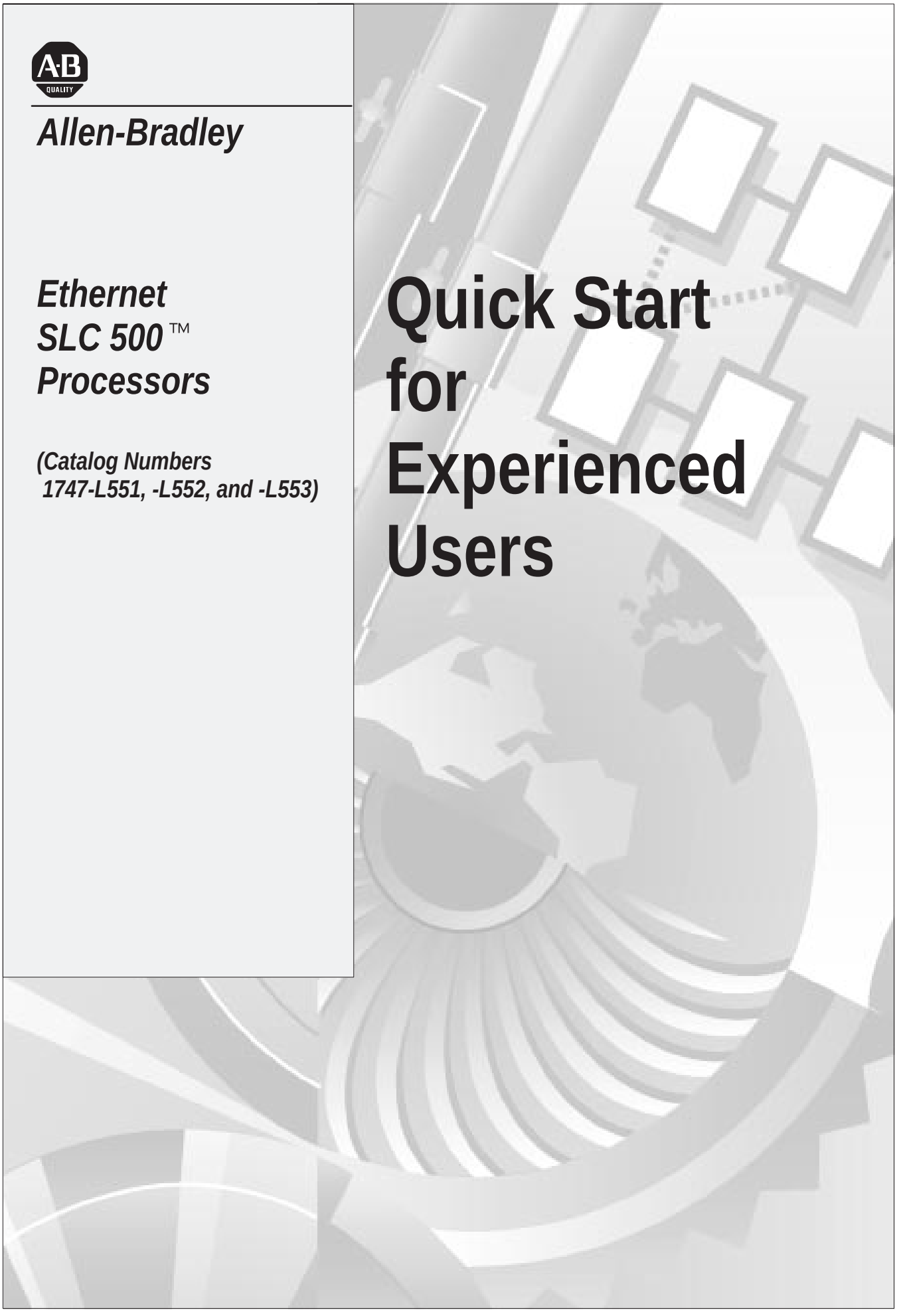


Allen-Bradley

Ethernet
SLC 500™
Processors

(Catalog Numbers
1747-L551, -L552, and -L553)

Quick Start for Experienced Users

Passthru Feature

SLC 5/05 (1747-OS501, FRN 3) processors support RS232-to-Ethernet channel-to-channel passthru. See Chapter 5 for more information on using the new passthru feature.

SLC 5/05 Performance Considerations

Actual performance of an SLC 5/05 processor varies according to:

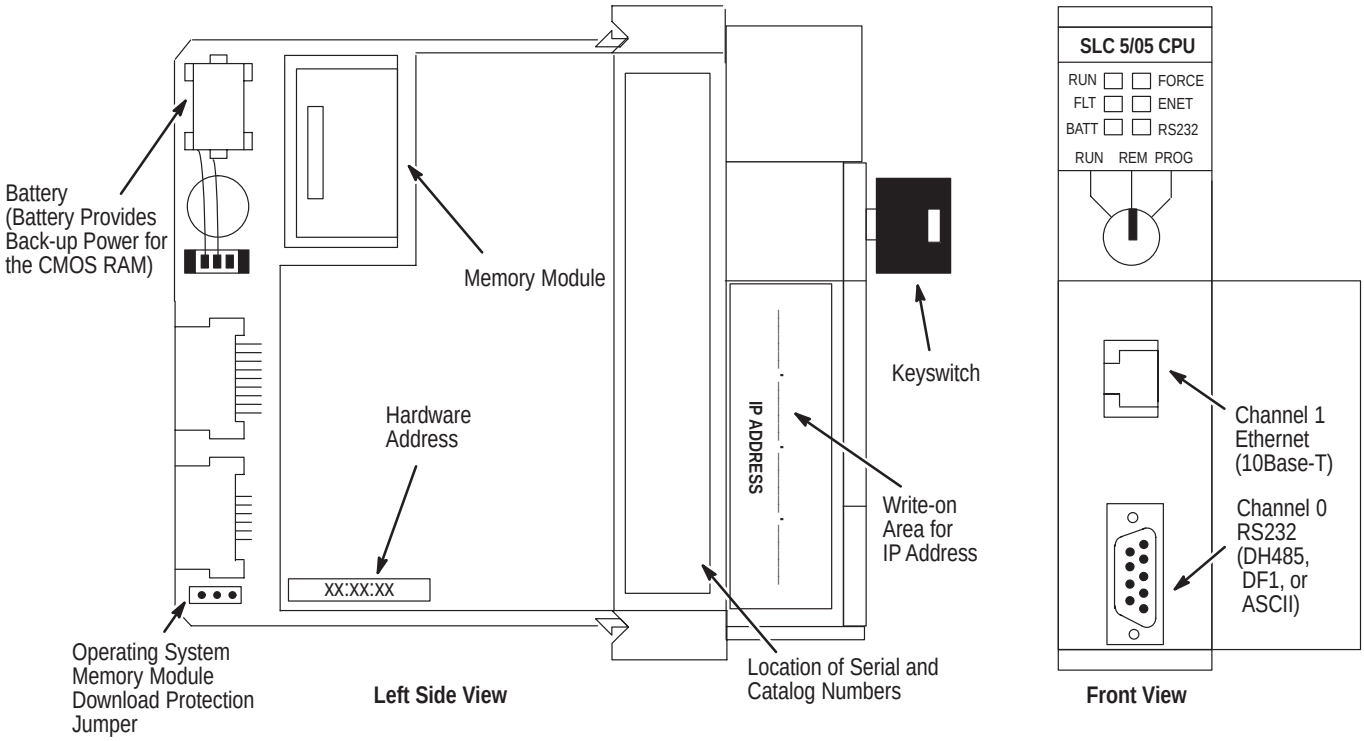
- size of Ethernet messages
- frequency of Ethernet messages
- network loading
- the implementation of and performance of your processor application program

Optimal Performance: SLC 5/05 to SLC 5/05 Processor (2-node Ethernet network)

Operation	Words	MSG per second	ms per MSG	Words per second
Single Typed reads	1	33	30.8	33
	20	32	31.1	640
	100	32	31.2	3200

Hardware Features

The figure below shows some of the hardware components of the SLC 5/05 processors (1747-L551, 1747-L552, and 1747-L553).



If you do not use “Auto-Configure”, you must enter the channel 0 default parameters as follows:

- Device Type: SLC-CH0
- Baud Rate: 19200
- Parity: None
- Error Checking: CRC
- Stop Bits: 1
- Protocol: Full Duplex

When finished, click “OK”. “AB_DF1-1 DH485 Sta:0 COM*n*: RUNNING” is added to the list of configured drivers (where *n* = the number of the COM port you selected).

Minimize the RSLinx window.

4. Start RSLogix500 programming software and create a new file.
5. In the “Select Processor Type” window, choose the SLC 5/05 processor type:

   - 1747-L551, 16K memory
   - 1747-L552, 32K memory
   - 1747-L553, 64K memory

   Assign a name to the processor and click “OK”. A ladder programming screen appears showing only an END rung.
6. Using the list on the left side of the screen, double-click on “Controller Properties” under the “Controller” category (folder).
7. In the “Controller Properties” window, click on the “Controller Communications” tab. In this window, select “AB_DF–1” as the driver. Click “OK”.
8. Using the list on the left side of the screen, double-click on “I/O Configuration” under the “Controller” category.
9. In the “I/O Configuration” window, you can identify your SLC hardware (chassis and I/O modules) either manually or automatically.

   Note: For automatic configuration, you need to have your SLC hardware installed and the programming cable (1747-CP3 or equivalent) connected between the SLC 5/05 channel 0 and the PC COM port.

   Manually –

   In the “I/O Configuration” window, select the chassis and I/O modules that you have. Close this screen (click the close button [**x**] in the upper right corner of the window).

Processor General Specifications

The table below describes the general specifications for the SLC 5/05 processors.

Specification	1747-L551	1747-L552	1747-L553
Memory Size	16K Words	32K Words	64K Words
I/O Capacity	up to 4096 inputs and 4096 outputs		
Maximum Chassis/Slots	3/30		
Standard RAM	Lithium Battery (2 years)		
Memory Back-up Options	Flash EPROM		
LED Indicators	Run, CPU Fault, Battery Low, Forced I/O, Ethernet, RS-232		
Typical Scan Time①	0.9 ms/K		
Bit Execution (XIC)	.37 µs		
Communication	Ch 1: Ethernet (10Base-T) Ch 0: RS-232 (DF1, ASCII, or DH485 Protocols)		
Power Supply Loading at 5V dc	1A		
Power Supply Loading at 24V dc	200 mA		
Clock/Calendar Accuracy	±54 sec/month at 25°C (77°F) ±81 sec/month at 60°C (140°F)		
Program Scan Hold-up Time after Loss of Power	20 milliseconds to 3 seconds (dependent on power supply loading)		
Noise Immunity	NEMA Standard ICS 2-230		
Ambient Temperature Rating	Operating: 0°C to +60°C (32°F to 140°F) Storage: –40°C to +85°C (–40°F to 185°F)		
Humidity	5 to 95% without condensation		
Shock (operating)	30Gs		
Vibration	Displacement: .015 in., peak-to-peak at 5 to 57 Hz		
	Acceleration: 2.5Gs at 57 to 2000 Hz		
Certification	UL listed/CSA approved Class I, Division 2, Groups A, B, C or D CE compliant for all applicable directives		

① The scan times are typical for a 1K ladder logic program consisting of simple ladder logic and communication servicing. Actual scan times depend on your program size, instructions used, and communication protocol.