

Allen-Bradley 1746 1747 Series Service Manual

1747-L553

1. Description

The Allen-Bradley/Rockwell Automation 1747-L553 module is a CPU or Central Processor Unit module from the Allen-Bradley SLC 500 and SLC 5/05 series. This CPU has CMOS RAM built into it that supports battery backup, and it can also support an Allen-Bradley 1747-M13 memory module that provides it with 64 K of additional memory. The 1747-L553 CPU module has an Ethernet channel. Technical specifications for 1747-L553

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1747-L553
Series	SLC 500
Inputs	4096
Module	Type SLC 5/05 Processor
Outputs	4096
Analog	I/O 480
Memory:	Up to 64 KB, Battery Backed-RAM
Program	Scan Time 0.9 ms/K
User	Memory 64,000 Words
I/O	Chassis 3
Chassis	Module Slots 30
I/O	Scan Time 0.225 milliseconds
Communication	Ethernet, RS-232
Backup	Memory 1747-M13
Ambient	Temperature 0 to 60 degrees Celsius
Battery	back-up memory: Yes; 1747-BA
UPC	10662072745622
UNSPSC	32151705 Description
The	1747-L553 is an SLC 5/05 processor that belongs to the SLC 500 Programmable Logic Controller (PLC) platform. This controller has the highest memory among the SLC 5/05 category which is 64 KB memory. It has integrated RS32 Sub-D 9-Pin connector for establishing peer-to-peer communication with locally installed Human Machine Interface (HMI) or a programming workstation. It also has an integrated Ethernet that is ideally used for communication over a long distance, minimum o

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Brand Allen-Bradley

Part Number/Catalog No. 1747-L553

Series SLC 500

Inputs 4096

Module Type SLC 5/05 Processor

Outputs 4096

Analog I/O 480

Memory: Up to 64 KB, Battery Backed-RAM

Program Scan Time 0.9 ms/K

User Memory 64,000 Words

I/O Chassis 3

Chassis Module Slots 30

I/O Scan Time 0.225 milliseconds

Communication Ethernet, RS-232

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Ambient Temperature 0 to 60 degrees Celsius

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UNSPSC 32151705 Description

The 1747-L553 is an SLC 5/05 processor that belongs to the SLC 500 Programmable Logic Controller (PLC) platform. This controller has the highest memory among the SLC 5/05 category which is 64 KB memory. It has integrated RS32 Sub-D 9-Pin connector for establishing peer-to-peer communication with locally installed Human Machine Interface (HMI) or a programming workstation. It also has an integrated Ethernet that is ideally used for communication over a long distance, minimum of 100 meters at 10/100 mbps transmission speed. It is also ideal for establishing connection to multiple devices at a time. These Two (2) port may also be used simultaneously without affecting the processor's logic execution capability.

This controller is ideal for medium to large scale application, with control requirements ranging from manual to automatic control of Discrete or analog loops as well as implementing complex control techniques with the utilization of a wide number of embedded instructions. It may be used in factory automation, Process Automation even in motion and position control requirements.

It is also capable of sending Messages to other Allen-Bradley PLC platforms such as PLC 5, CompactLogix and ControlLogix via a specified communication protocol. Though integrated with Ethernet and RS232 ports, this processor may be installed with communication adapters such as Remote I/O (RIO), Data Highway Plus (DH+), DeviceNet and DH485.

It may be installed to any SLC 500 chassis. This processor module has a fixed slot assignment of slot Zero (0).

It contains a PLC-5 processor-based advanced instruction set. The 1747-L553 can stand alone or be distributed throughout the system for SCADA applications. The 1747-L553 processor has a total user memory of 64K words with 60K words for data/program and 4K words for just data. It has up to 4096 inputs, 4096 outputs, and 480 local analog I/O. It has a program scan time per keyword of 0.9ms and 0.225 milliseconds I/O scan time. The 1747-L553 has a backplane current of 1 Amp at 5 Volts DC and 0 Amps at 24 Volts DC. It has a maximum of 3 local I/O chassis with maximum 30 module I/O slots in local I/O chassis.

For communication, it uses Ethernet and RS-232 ports that can be configured for connection to the 1761-NET-AIC converter. It has standard battery-backed RAM and Flash backup memory. With this processor, Remote I/O Scanner module and DeviceNet Scanner module can be additionally installed to configure I/O via Universal Remote link or DeviceNet network. The 1747-L553 processor provides shorter bit-instruction execution time of 0.37 milliseconds and 10/100 Mbps Ethernet port. Its DH+ communication port is 3 times faster than the DH-485 port. It has all the features of other SLC 5/03 processors like online programming, flash memory upgrades, floating-point math, and a built-in real-time clock, key-switch, and calendar. The 1747-L553 is intended for use in clean and dry industrial environments with a 0 to 60 degrees Celsius operating temperature and a 30G operating shock.