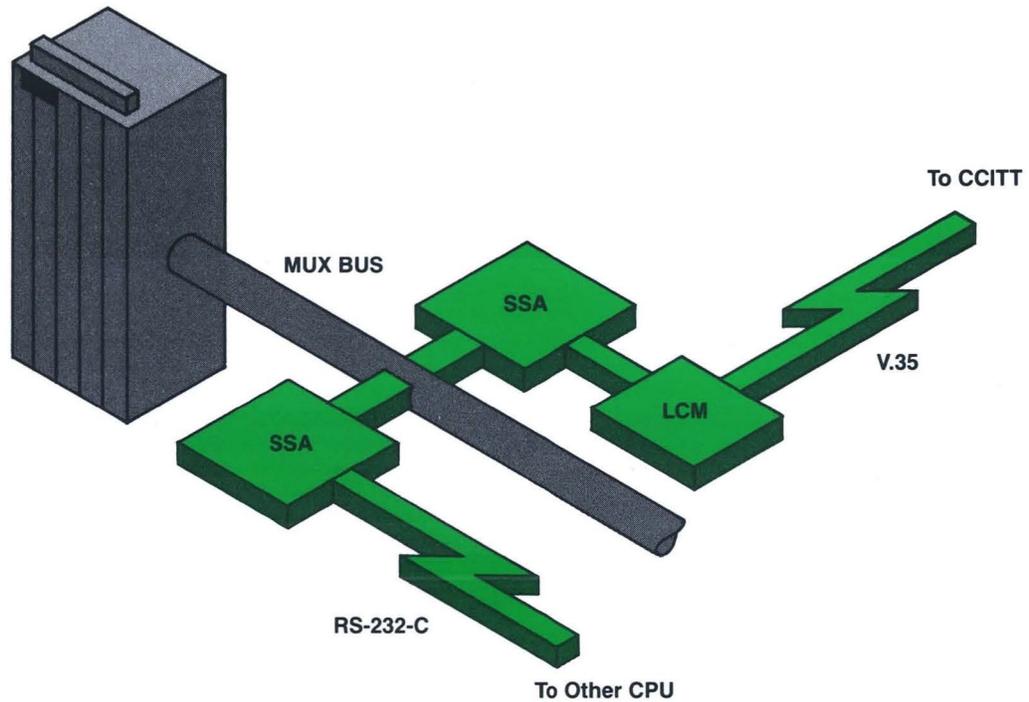


# SSA

## Single Line Synchronous Adapter

A Data Communications Product



### Product Description

The Single Line Synchronous Adapter (SSA) is a flexible data communications interface for Perkin-Elmer's Series 3200 family of supermini computer systems. The SSA provides an economical telecommunications interface between the computer and the data set (modem) used with common carrier switched or leased facilities.

Part of Perkin-Elmer's array of advanced data communications products, the SSA is a double-buffered communications interface and controller for the Bell Series 200 synchronous modems or equivalent. The SSA supports both half-duplex (2-wire) and full-duplex (4-wire) operations. Synchronous modems permit higher baud rates over voice grade facilities, allowing more efficient data transmission and lower line costs.

The SSA interfaces to a wide variety of synchronous modems including the I/O multiplexor bus, the selector channel bus, the private I/O bus of the Enhanced Memory Access Multiplexor (EMAM), and the DMA I/O Subsystem (DIOS).

The SSA is available in two versions:

- M47-106 accommodates binary synchronous protocols or other similar character-oriented protocols.
- M47-107 accommodates both the binary synchronous protocols and bit-oriented protocols, such as SDLC, HDLC, and ADCCP.

### Features

#### Models M47-106 and M47-107

- Full support for binary synchronous protocol or other similar character-oriented protocols (HASP, 2780/3780, etc.).
- High Data Throughput—The SSA handles data rates to 56K bits/second to meet high data rate facilities, minimizing line connection time and lowering costs.
- Program control of those parameters most commonly subject to change with system evolution, such as character size, sync character, and odd/even or no parity.
- RS-232-C interface contained on the board.

- Full modem control and double buffering.
- System Design Flexibility—On-board ribbon-cable connector for use with Perkin-Elmer's Line Conditioning Module (LCM). This permits interfacing to modems using an electrical interface other than RS-232-C, such as CCITT V.35.
- Local loopback mode for on-line testing.

#### Model M47-107 only

- Automatic Zero Bit Insertion/Deletion and automatic flag insertion/deletion as required for ADCCP, HDLC, and SDLC (enable/disable under program control).

## Operational Characteristics

In the operational environment, the user-provided modem supplies the clock signals that determine the data transmission rate as long as it does not exceed the SSA's upper limit of 56K bits/second.

During binary synchronous transmission (or any similar character-oriented protocol), data is transmitted in a bit serial fashion. Synchronization, or character framing, is achieved when the SSA detects a character match between the incoming characters and the character previously set up by the program. This match character, called a sync character, can be any 5,6,7, or 8-bit character in the range Hex '03' to Hex 'FE' (with or without parity). The sync character is program selectable.

For bit-oriented protocols (SDLC, HDLC, etc.), the SSA is ordered with Zero Bit Insertion/Deletion (ZBID) capability. The ZBID function can be enabled or disabled under program control. When enabled, the pattern and size of the flag character are set. The flag character is automatically sent by the SSA at the beginning and end of each transmission. The SSA also automatically provides Zero Bit Insertion and Deletion, as required between flags, while the bit stream is transmitted and received, respectively.

## Specifications

### Character Format:

Programmable—5,6,7, or 8 data bits

### Maximum Data Rate:

56K bits/second

### Parity:

Programmable—odd, even, or none

### Modem Control:

Programmable—Data Terminal Ready; Request To Send

### Modem Status:

Clear To Send

Carrier

Ring

Data Set Ready

### Other Status:

Overflow

Parity Fail

Termination/Abort

### Power Requirements:

3 amperes @ 5 volts DC

### Operating Environment:

0° to 50°C

10-90% relative humidity (no condensation)

### Weight:

1.5kg (3 pounds)

### Dimensions:

381mm x 381mm (15 in. x 15 in.)

## Product Numbers

M47-106 Single Line Synchronous Adapter  
(character mode only)

M47-107 Single Line Synchronous Adapter  
(character or ZBID)

## Related Product Numbers

M47-004 Line Conditioning Module

M47-108 External Cable Assembly

## Related Documentation

29-689 SSA Installation and Maintenance Manual

29-473 SSA/QSA Programming Manual

## Worldwide Sales Offices

### U.S.A Offices

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CALIFORNIA: Los Angeles, San Diego, San Francisco, Santa Clara, Tustin; COLORADO: Denver; CONNECTICUT: Fairfield, Hartford; FLORIDA: Orlando; GEORGIA: Atlanta; ILLINOIS: Chicago, Springfield; MARYLAND: Rockville; MASSACHUSETTS: Boston; MICHIGAN: Detroit; MISSOURI: St. Louis; NEW JERSEY: Cherry Hill, West Long Branch; NEW MEXICO: Albuquerque; NEW YORK: Binghamton, Lake Success, New York City, Rochester; NORTH CAROLINA: Raleigh; OHIO: Cleveland, Dayton; OKLAHOMA: Tulsa; PENNSYLVANIA: Pittsburgh; TEXAS: Dallas, Houston; VIRGINIA: Richmond; WASHINGTON: Seattle.

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The information contained herein is intended to be a general description and is subject to change with product enhancement.

# PERKIN-ELMER

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