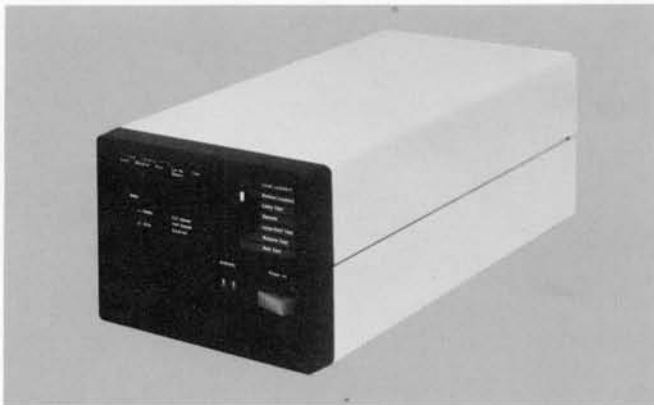
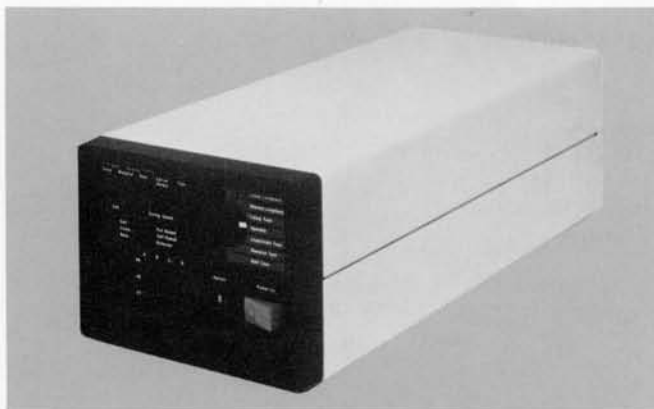


3863  
3864  
3865

Modems



3863/3864



3865 Mod.1 with Data Multiplexing Feature

## PRODUCT DESCRIPTION

The IBM 3863, 3864 and 3865 comprise a family of microprocessor based modems that are designed to operate reliably over voice grade switched or non-switched lines. Configuration can be point-to-point or multipoint depending on the type and model. They provide expanded manual test capability over previous IBM modems and, in addition to standard self-test and transmit/receive test, non-switched modems can perform loop back (modem-line-modem) tests without remote operator intervention. These modems are equipped with data quality lights that provide an indication of the quality of the communication facility. These modems have been developed so that all have identical or similar appearing operational panels and servicing features which enhance service and Customer Set Up (CSU).

These modems are designed for Customer Set Up.

## 3863/3864

The IBM 3863 is a 2400 bps synchronous modem, and the IBM 3864 is a 4800 bps synchronous modem. They are offered in two models:

Model 1 operates in point-to-point or multipoint mode over 4-wire non-switched telecommunication facilities.

Model 2 operates in point-to-point mode over 2-wire switched telecommunication facilities.

This model includes a world trade PSN adapter which permits direct attachment to the public switched network.

## 3865

The IBM 3865 is a 9600 bps synchronous modem for 4-wire non switched telecommunication facilities and is also offered in two models:

Model 1 operates in point-to-point mode.

Model 2 operates in multipoint mode. This model will be used at the local and remote ends of the multipoint line.

## Technology

- LSI (Large Scale Integration)
- FET (Field Effect Transistor)
- TTL (Transistor-Transistor Logic)

## Standard Features

### Indicators

- Data quality (good/poor)
- Test Mode Active
- Data Carrier Detect Active
- Power On
- Operate
- Modem Check

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### Modem Setup Switches

- Located on the modem back panel.
- Initially set at factory from customer order information.
- Field changeable to allow the customer to set up or relocate modem without CE involvement.

### Other

- Streaming Detect and Restore
- Automatic/Adaptive Equalization
- Auto Answer for Switched Lines and SNBU
- Automatic remote half speed
- External (DTE) clocking

### Optional Features

- The 4-wire Switched Network Backup (SNBU) feature is available on all Model 1 modems and provides backup for the communication line. It requires two switched lines.
- The Fan Out feature is available on 3863 Model 1, 3864 Model 1 and 3865 Models 1 and 2. This feature allows the attachment of up to three business machines to one modem in non-simultaneous operation.
- The Rack Mount accessory is available for all models. This accessory provides hardware to mount two modems side by side in a standard EIA 19-inch rack.
- The data multiplexing feature is available for 3865 model 1. This feature allows selection of 4800 and/or 2400 bps subchannels. The modem multiplexes sub-channel data into a single aggregate data stream.
- The tail circuit attachment accessory allows 3863 or 3864 modems model 1 to attach to a 3865 model with the data multiplexing feature.
- The direct line attachment feature is available for U.K. post office requirements.
- The Expanded Diagnostic feature is only available on non-switched modems. It provides a Tone Alarm Card (TAC) which signals loss of power on the remote modem. This feature also allows the modem self-test to be started in the remote modem by command from the local business machine. This feature must be installed in both the local and remote modems.

### Maintainability/Serviceability Features

- Link Problem Determination Aid (LPDA) is a series of commands issued by the host business machine to provide status of any modem in the link, its attached terminals and the quality of the communication facilities. These commands and their responses use the same data paths and controls as the system but do not disrupt the customer's data. The LPDA function, executed by the modems, interfaces with the Network Problem Determination Application (NPDA) in the host through the ACF/NCP/VS in the communication controller, to allow the network operator to correlate system events with communication link status in order to isolate network problems and determine the most probable causes of failures.
- Self-test, which invokes resident microdiagnostics, tests basic logic cards and features. If an error occurs, the test will stop at this point, freezing the error condition and indicating to the CE the failing FRU by means of FRU lights. Upon completion of the microdiagnostics, the test will continue into a 'wrap' with a simulated impaired communication line.
- Maintenance Analysis Procedure (MAPs) are used in conjunction with FRU indicators and History Logs to assist the CE in determining the failing FRU.
- Unattended Wrap Test (similar to T3-T4) allows the operator or CE to 'wrap' the remote modem without remote operator assistance.
- Normal Wrap Tests allow the operator or CE to run data wraps similar to existing IBM modems.

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