



3874

MODEM

Technology

Technology for the 3874 is SLT/SLD/VTL IBM FET and discrete components. The modulation technique used to generate the line signal is eight phase coherent phase shift keying, using digital echo modulation.

Optional Features

- Point to point
This feature is required on each modem used in a point to point configuration.
- Multipoint tributary
This feature is identical to the point to point feature but has been separately identified for ease of configuring TP systems. It is required on each modem connected to a tributary station of a multipoint network (up to six).
- Multipoint control
This feature is required for the control modem of a multipoint network. It includes necessary circuitry to store the line equalization parameters of each tributary link. Indication of proper network equalization is displayed on the operator panel.
- Alternate voice
This feature permits the operator to talk over the same non-switched lines that are used for data transmission, when data is not being transmitted. (A customer provided handset is required).
- Fan out
This feature permits sharing of one modem by up to three business machines on a non-simultaneous basis.

Additional optional features (Canada only)

- Switched network prime
 - Switched network back up
 - Automatic answering
 - Automatic calling
- The automatic equalization also applies to switched network.

Problem Determination Features

The 3874 is provided with several tests for use by the customer for problem determination and by the CE for problem isolation.

A built-in pattern generator can be used to simulate a Data Terminal Equipment transmission.

- Local self test
The internally generated pattern feeds the modem transmitter. The modulated data is then wrapped back to the receiver through a line loss simulator, demodulated, and checked for errors.
- Over the line test
 - a) The internally generated test pattern is transmitted over the line facility to the receiver in the remote modem where it is checked for errors.
 - b) The internally generated test pattern is transmitted over the line facility, received and checked for errors by the remote modem. The data received by the remote modem is then re-transmitted to the local modem and again checked for errors.
- Data Terminal Equipment/Modem test
Under attached business machine control, the data sent to the modem is wrapped back to the DTE through modem circuitry.

Serviceability Features

In addition to the test capabilities, a modem maintenance documentation is provided. Trouble shooting flow charts and pictorial wave forms for all significant test points are included for ease of problem isolation. The maintenance philosophy is based on card swapping.

Career Path

The 3874 will normally be serviced by the customer engineer responsible for the attached IBM equipment (i.e. terminal / control unit, etc...). The Data Recording CE will be able to service this modem.

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