

Honeywell

Universal Modem Bypass 6927

SERIES 60 (LEVEL 6)

The Universal Modem Bypass is a self-contained, stand-alone device which provides the means to transmit and receive communications data over a distance of up to 2,500 feet over ordinary 4-wire telephone cable. It is designed as an inexpensive replacement for a modem over this limited distance.

The Modem Bypass can be connected to any terminal with an EIA RS-232C interface and can be operated at bit rates up to 19,200 bps.

A built-in repeater feature enables the Modem Bypass to be used in repeater and multipoint configurations thus expanding its versatility.

FEATURES

- Low cost
- Wideband
- Self-contained power supply
- Plug-in replacement for EIA RS-232C modem
- Point-to-point or multipoint configurable
- No limitation on multipoint stations
- Requires no common carrier interface on installation

OPERATION

Two Modem Bypass units are required to interface a terminal with its communications controller. A sample point-to-point configuration is shown in Figure 1.

The Modem Bypass uses advanced coupling techniques to provide complete isolation between driver and receiver grounds. EIA-compatible data from a computer or terminal is converted to bipolar pulses by internal circuits, and transferred via telephone cable to an associated unit. Each Modem Bypass also has the capability of acting as a repeater. This is accomplished by retransmitting data signals received by the repeating unit to the next unit.

In addition to being able to act as a repeater station, each Modem Bypass can have a computer or EIA terminal drop-off at each station. Each terminal device in the multi-drop network can communicate with the master station (computer)



by incorporating selective calling and polling procedures. By raising its Request to Send (RS) control, any terminal in the multi-drop loop can communicate with the master station in the full-duplex mode. A sample multipoint/repeater configuration is shown in Figure 2. The repeater mode is entered when the interim stations have their RS controls disabled, making them transparent to the transferred data. In this multipoint repeater configuration, all Modem Bypass units are hooked up in series so that the transmit terminal (T) of one unit is connected to the receive terminal (R) of the next unit as shown in Figure 2.

PHYSICAL DESCRIPTION

Each unit is housed in a stand-alone cabinet which can be placed up to 30 feet from its associated computer or terminal. Cabling between a Modem Bypass and its associated computer or terminal is accomplished via a customer-furnished Cinch or Cannon DB-1904-432 plug with a DB-51226-1 hood, or equivalent. A Modem Bypass pair is interconnected via a customer-supplied, 4-wire telephone cable which can be up to 2,500 feet long.

Speed selection on the Modem Bypass is made by fixed strapping; speed selection is specified at the time of order. One high frequency clock is strapped for internal Modem Bypass use in all asynchronous applications.

Signals between a Modem Bypass and its associated terminal are in accordance with EIA RS-232C. Connector pin allocations and signal designations are defined below:

Pin No.	EIA Nomenclature	Lead Designation
1	Protective Ground (AA)	Frame Ground (FG)
2	Transmitted Data (BA)	Send Data (SD)
3	Received Data (BB)	Receive Data (RD)
4	Request to Send (CA)	Request to Send (RS)
5	Clear to Send (CB)	Clear to Send (CS)
6	Data Set Ready (CC)	Not used
7	Signal Ground (AB)	Signal Ground (SG)
8	Data Carrier Detector (CF)	Carrier On (CO)
9	Not defined	Positive Battery (+12V)
10	Not defined	Negative Battery (-12V)
11	Not defined	Not used
12	Not defined	Not used
13	Not defined	Not used
14	Not defined	Not used
15	Trans. Sig. Element Timing (DB)	Serial Clock Transmitter (SCT)
16	Not defined	Not used
17	Rec. Sig. Element Timing (DD)	Serial Clock Receiver (SCR)
18	Not defined	Not used
19	Not defined	Not used
20	Data Terminal Ready (CD)	Not used
21	Not defined	Not used
22	Ring Indicator (CE)	Not used
23	Not defined	Not used
24	Trans. Sig. Element Timing (DA)	Not used
25	Not defined	Not used

SPECIFICATIONS

OPERATING MODES: Synchronous and Asynchronous, FDX/HDX

SPEED: Up to 19,200 bps

RANGE: 2,500 feet

DISTORTION:

Synchronous – None

Asynchronous – will not exceed 25% at 9600 baud, 5% at 1800 baud, 3-1/3% at 1200 baud, and 1% at 300 baud.

DELAY:

Synchronous – one-half of line speed period

Asynchronous – None.

POWER REQUIREMENTS:

120 Vac at 60 Hz, or
220 Vac at 50 Hz

DIMENSIONS:

Height: 3-1/4 in.

Width: 12-7/16 in.

Depth: 6 in.

WEIGHT: 7 lb

OPERATING TEMPERATURE: 0°C to 50°C

DOCUMENTATION

A document containing necessary installation and operating instructions is supplied with the Modem Bypass.

Specifications may change as design improvements are introduced.

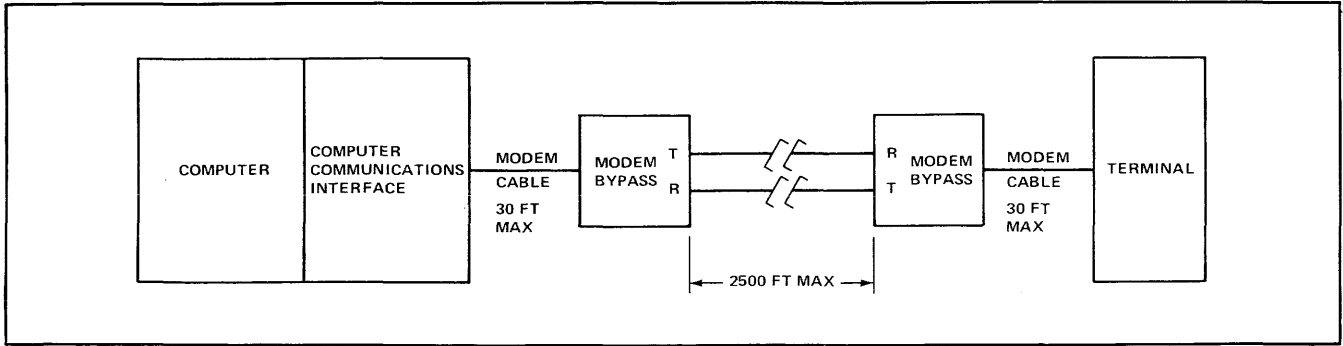


Figure 1. Point-to-Point Configuration

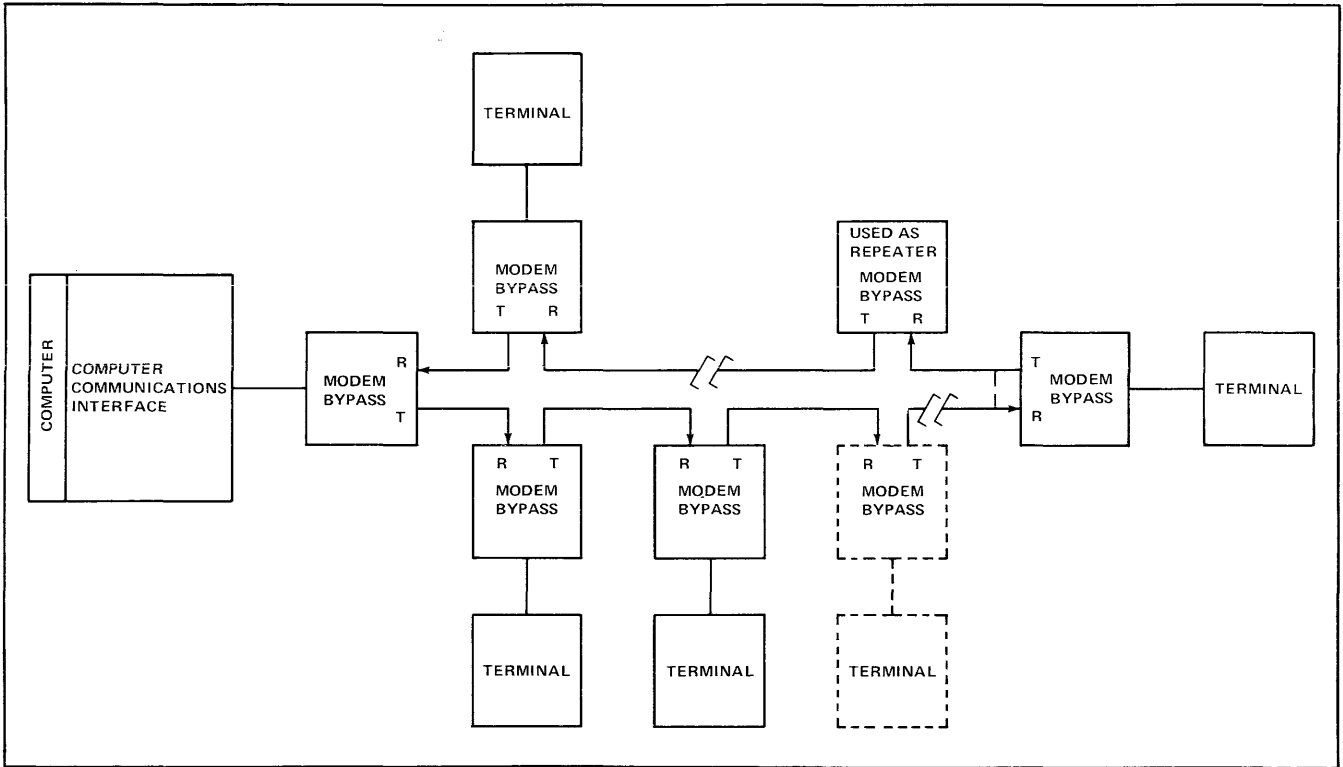


Figure 2. Typical Multipoint/Repeater Configuration

Honeywell

Honeywell Information Systems

In the U.S.A.: 200 Smith Street, MS 486, Waltham, Massachusetts 02154
In Canada: 2025 Sheppard Avenue East, Willowdale, Ontario M2J 1W5
In Mexico: Avenida Nuevo Leon 250, Mexico 11, D.F.

16284, 5876, Printed in U.S.A.

AW75, Rev. 0