NIGHTINGALE

V21/V23 DATA MODEM

* V21 OPERATION (300/300 BAUD)
* V23 OPERATION (1200/75 - 75/1200 BAUD)
* MANUAL DIAL
* LED STATUS INDICATORS
* ANALOGUE LOOP SELF TEST FACILITY
* REAR PANEL TELEPHONE SOCKET
* INTEGRAL POWER SUPPLY UNIT
* BABT APPROVED

COMMUNICATING WITH NIGHTINGALE

Our Nightingale modem has now become something of a standard where low cost, manual dial operation is required. It has been badge engineered for Amstrad plc, Sagesoft plc., and several other parties, including Telita, The Malaysian PTT! which testifies to the reliability and versatility of this modem.

Nightingale is a simple, manually operated modem which is suitable for use on any computer with an RS232 serial interface. It combines in this one unit 300/300 baud, 1200/75 baud and 75/1200 baud operation making it the ideal, inexpensive solution for communicating with viewdata services such as Prestel and ASCII based systems such as One to One, Telecom Gold, Easylink and Bulletin Boards etc. In addition to the facility for transfering data between computers. Using reverse 1200/75 - 75/1200 baud option, where two

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Nightingales are being used for the transfer of data, communicating can take place at 1200 baud in each direction.

Two positive action switches on the front panel allow selection between the four possible configuration settings i.e. V21 or V23, originate or answer. A further switch provides for the manual connection to the incoming carrier signal.

The self test switch on the rear panel puts the modem into analogue loop-back mode which is useful for confirming the correct installation and operation of the modem before going 'On Line'.

Front panel LED's indicate whether the modem is powered up, when it is on line, and whether it is transmitting or receiving data.

Rear panel sockets are provided for RS232 and telephone connection. An integral mains powered supply is incorporated in the modem.

Nightingale is supplied with an easy to follow installation and user guide and full one year's warranty.

Further specification sheets are available on request for the whole range of Pace modems, interfaces and communications software. The Pace range of modems includes: Linnet, Linnet PC Card Modem, Series Four 2123S, 1200S, 2400S.

The AMD 7910 used in the Nightingale is a single chip asynchronous frequency shift keying (FSK) voiceband modem. It is compatible with the applicable CCITT and Bell standards for 103, 113, 108, 202 V21 and V23 type protocols. Modulation and demodulation are accomplished using advanced digital signal processing techniques. Other built-in circuitry allows the designer to reduce external components costs and increase reliability.

The typical power spectrum for a digital data stream (DDS) extends down to 0 frequency, the PSTN however restricts frequencies to the band between 300 and 3400Hz. It follows that the DDS must be modulated in some way before transmission via the PSTN can occur, this is the function of a modem.

Modems make use of three main modulation techniques; Frequency Shift keying, Phase Shift keying and Quadrature Amplitude modulation. These techniques differ in the way the data is encoded onto the analogue carrier and hence in the number of bits encoded per modulation interval, the efficiency of transmission and circuit complexity. For data rates of less than 1200 baud full duplex FSK offers the most cost effective solution and 7910, with careful design can be used to great effect, as in the Nightingale.

SAFETY CONSIDERATIONS

The design of any device which connects to the mains 240 volt power supply, the public switched telephone network and a microcomputer must be given a great deal of attention to ensure that there is no danger of electrocution or interference with the PSTN. In this respect Nightingale was designed to the rigorous standards set by the BSI and BABT, full consideration being given to BS standards 6301, 6305, 6320, 6204 and 415. This attention to fundamentals has been recognised by the granting of approval for use on the PSTN, first by the secretary of state and subsequently by BABT.

The Nightingale modem, in conjunction with communications software for a variety of microcomputers, has proved that computer communications for the personal and home computer user can be affordable and effective. It has opened up the way for new development in many areas and removed the fallacy that home computers are mere toys.

Contact your dealer now for a demonstration

TECHNICALLY SPEAKING

Dimensions: W. 170mm D.190mm H.55mm
Power Supply: Internal Modem PSU
Interface: RS232 via 5 pin Domino socket
Operating Standards: V21, V23

Baud Rates: 300/300 TX1200/RX75, RX1200/TX75
Connections: Line; lead terminated via type 600 modular plug. Tel: via modular socket
Status LED's: Carrier detect/line hole, power/data.

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