Post Office Telecommunications

DLZ 907

Datel 48K service

Datel 48K service is suitable for customers who have large amounts of data to transmit quickly.

Description

Some computing applications such as disc to disc transfer, file dumping and load shedding, require the transmission of data at very high speeds. The Post Office offers the Datel 48K service with transmission speeds of 40.8 kilobits per second (kbit/s), 48 kbit/s and 50 kbit/s to meet such requirements. A speech channel can also be provided which, with the provision of telephones, will enable the data flow to be co-ordinated and controlled.

The modulator-demodulators (modems) used with this service operate with a group band carrier system, thus enabling customers to utilise the Post Office national network with a minimum of cost. To access this network two modems have been developed - a baseband modem and a group band modem.

The baseband modem, which is located at the customer's premises, consists of a transmitter, a receiver and telephone facilities. The transmitter converts signals received from the Data Terminal Equipment into a baseband form and transmits them over a suitable cable to the group band modem, which is generally provided at a Post Office high frequency repeater station. The receiver converts baseband signals received from the group band modems to 2-state information acceptable by the Data Terminal Equipment. The telephone facilities are available within the modem but, if required, necessitate the provision of a suitable additional circuit between the baseband modem and the group band modem.

The group band modem, which is normally located at the Post Office high frequency repeater station consists of a modulator and demodulator. The data signals received from the baseband modem modulate a 100 kHz carrier which produces a signal occupying the frequency band 60-104 kHz that is compatible with the high frequency network. The speech co-ordination facility is available through the group band modem in the frequency band 104-108 kHz. The demodulator converts the signals back to baseband level for transmission to the baseband modem.

The modems can be provided as free standing table models or in racking. The racking can be provided to house the modems complete in their cases, or specially engineered to incorporate the modules of the modems without the cases.

Circuits

The service utilises the national high frequency network within the United Kingdom. The links between customers' premises and the serving high frequency repeater station are specially engineered to meet the needs of the system.

Data Terminal Equipment

Modems used with all Datel Services are designed with standard interface connexions. Input/Output, coding and error control functions will be performed by the Data Terminal Equipment which can be obtained from specialist manufacturers.

Tariffs

The connexion charges and rentals for the Datel 48K service can be obtained from the Special Services Sales Representative in your local Telephone Area Sales Office, who will be pleased to assist you. (The Telephone number will be in the front of your local directory).

Technical information

Baseband Modem Dimensions

Width 442mm (17.5 inches) Length 432mm (17 inches) (including customer interface plug) Height 178mm (7 inches)

Environment

Room Temperature - The ambient room temperature must not exceed 30°C.

Relative Humidity 40% to 90%

Power

AC voltage 230-250v AC power frequency 45-55 Hz single phase Power consumption - 55 watts Power lead - a 3-core power cable 2.4 metres length with an appropriate 3 pin plug which will be provided by the Post Office.

Data Signalling rate

40.8 Kbit/s synchronous or 48 Kbit/s synchronous or 50 Kbit/s synchronous

Method of operation Duplex

Interface connector

A 34 way interface connector plug will be provided (connector plugs can be obtained from private manufacturers and details can be obtained from the Telephone Area Sales Office).



Datel 48K service (40.8, 48 or 50 kbit/s) with speech facilities

Weight 21.4Kgms (53 lbs)

Interchange Circuits

Unbalanced circuits - conform to CCITT V28 recommendation (control circuits) Balanced circuits - conform to CCITT V35 recommendation (data circuits)

Groupband modem Dimensions

Width - 442mm (17.5 inches) Length - 410mm (16.25 inches) Height -- 324mm (12.75 inches) Weight - 32.2Kgms (69 lbs)

Environment

Room Temperature – The ambient room temperature must not exceed 30°C.

Relative Humidity - 40%-90%

Power

AC voltage 230-250v AC power frequency 45-55 Hz single phase Power consumption - 60 watts Power lead - A 3-core power cable 2.4 metres in length with an appropriate 3 pin plug which will be provided by the Post Office.

Please note We do our best to supply our customers with the apparatus they ask for but we may have to provide apparatus which does not accord exactly with the descriptions and illustrations in this leaflet.

For further or up-to-date information please contact the special services section of your local Telephone Sales Office. The address and telephone number are shown in the preface of your telephone directory.