Conitel BPF – Converts 31 bit Conitel SCADA Protocol to Frame Relay

- Converts 31-bit Conitel SCADA protocol (L&N Conitel) to Frame Relay
- External analog to digital conversion with the DCB 202T
- Internal 56/64 KBPS DSU option
- Composite protocol is Frame Relay
- Simple to configure
- Cost effective

DESCRIPTION

The DCB Conitel BPF converts 31 bit Conitel SCADA protocol to Frame Relay. The composite output of the Conitel BPF is frame relay protocol. The CONITEL BPF converts each 31-bit protocol word into an ASCII byte oriented composite. The Conitel BPF allows migration of Conitel SCADA from the ever more expensive and hard to order analog phone lines to digital Frame Relay circuits. The Conitel BPF can be used point-to-point or point-to-multipoint.

The Conitel BPF can be used in conjunction with the DCB 202T modem for connection to RTU devices with built in modems. The transmit output of the 202T can be set to –16 dBm for connection to built in modems that are very sensitive to high receive levels. The Conitel data is sent Frame Relay on the composite of the Conitel BPF, either RS232 or through an internal 56/64 kbps DSU/CSU.

The Conitel BPF is easy to set up. A 9600 bps RS232 management port can be connected to a dumb terminal or a PC running a terminal program.   Menus are in clear, concise English.

About the Conitel Protocol:

Conitel message blocks are composed of 31 bits plus a message synchronization "start bit" at the front of the first message block and an End of Message (EOM) bit at the end of each block. The EOM bit will be a 1 if it is the last bit in the last block. The EOM bit will be a 0 if it is the last bit in a block and more data blocks will be sent.

The master station initiates all communications.   Master-to-remote messages are always a single block. Remote-to-master messages consist of one or more blocks. Prior to transmission of the first block in either direction, a "pre-transmission" mark is transmitted. The pre-transmission time is adjustable by the user. The pre-transmission enables the receiver to look for the start of data. Following the pre-transmission mark, a space is transmitted for a single bit time. The transition from mark to space is used to synchronize the receiver. This method is similar to the start bit of async serial byte oriented data. The Conitel protocol however sends the remaining bits of the message with no further synchronization bits.

SPECIFICATIONS

General
    Rates: Async port to 38.4 Kbps (1200 bps default)
    Application: 31 bit Conitel SCADA protocol to ASCII, encapsulated in Frame Relay
    Supports composite rate to 128 kbps (56 or 64 kbps with internal DSU)

Indicators (front panel) and Controls
    Power, Activity, Line Error, Modem Ready, Port 1 Setup, Loopback
    Front panel push button for loopback
    Field upgradeable firmware
    Setup via the rear panel setup port or the front panel "Port One Setup" switch

Data Ports
    RTU Port Interface: RS-232, V.24, speeds to
     38,400 bps
    Composite to 128 kbps, or internal DSU
    Connectors: RJ-45 per EIA/TIA 561 pinouts

Physical/Electrical
    Power requirements: 120 VAC, wall mount power
    Supply: 220 VAC also available. DC 12, 24, 48 and
     125 volt supplies also available
    60 Hz, 18 Watts
    10 1/4" x 9 3/4" x 2 1/4", optional rack mount shelf
One pound

Rear View of BPF with DSU

Application