Single Aggregate Time Division Mux

MINIMUX OVERVIEW

GDC's MiniMux Time Division Multiplexer (TDM) is a software controlled, single aggregate time division multiplexer (TDM) that is ideal for point-to-point links in voice, data, and local area networks. It is fully compatible with GDC's TMS-3000 and TMS Compact, making it the perfect choice for a feeder mux in larger networks.

MiniMux TDM supports an entire spectrum of aggregate interfaces, at rates from 4800 bps to 2.048 Mbps. It is also compatible with DS0-channelized public network service offerings (Fractional T1/E1), providing users with virtually unlimited connectivity.

MINIMUX Features

- Self-contained TDM system multiplexes up to six channels of synchronous, isochronous, or asynchronous data, or voice-grade telephone signals.

- Expands to support up to 14 channels.

- Cost-effective solution for point-to-point links in voice, data and local area networks.

- Universal voice and data channels for maximum configuration flexibility.

- Compatible with the entire TMS family of systems for a fully integrated networking solution.

- Can be deployed in standalone, desktop enclosure, or rackmount packaging.

- Common cards: Universal Auto Frame Modules, Transmit/Receive Logic Modules, Universal Clock Generator Modules, Aggregate Interface Control Modules.

- Channel cards: Universal Data Cards (UDC), Sync Status Modules (SSM), Universal Voice Channel Cards (UVC/UVC-Plus), Time-Independent Data Channel Cards (TID-III).

Comprehensive Network Management

MiniMux TDM provides comprehensive network management capabilities with user-friendly, menu-driven displays. Aggregate and channel level loopbacks can be initiated from the operator's console. The operator can scan the port control status for any channel, and can force EIA leads high or low for more extensive diagnostic testing.

Alarm information is also available at the console. Alarms are classified as major or minor, local or remote, and are time stamped for easier problem isolation and/or subsequent statistical analysis.

Figure 1: MINIMUX Time Division Multiplexer

Universal Voice/Data Networking

MiniMux TDM employs Universal Voice Channel cards (UVC/UVC-Plus) and Universal Data Channel (UDC) which support a range of applications that would normally require many different cards. For example, the UVC supports standard 64 Kbps PCM transmission, as well as ADPCM transmission at 32, 24 and 16 Kbps. The UDC supports both synchronous and asynchronous data, at channel rates from 75 bps up to 1.152 Mbps. Voice and data channel operating rates are software selectable for easy network configuration and reconfiguration.

The UVC and UDC cards are used in General DataComm's TMS family of networking systems, making migration to higher level systems easy and cost effective. This commonality simplifies maintenance by limiting the number of components that need to be monitored and diagnosed, and reduces sparing inventory requirements.

Very Low Bit Rate Voice

MiniMux TDM supports a unique, very low bit rate voice (VLBRV) channel card that transmits compressed voice at channel operating rates of 9600, 4800 and 2400 bps. These extremely low rates allow users to pack many more voice channels into a given aggregate link. This capability is particularly significant for networks that require expensive international or satellite connections, where bandwidth economy is most important.

The VLBRV supports an optional module that will detect an incoming Group III FAX signal and bypass the voice compression algorithm. FAX transmission occurs at the configured channel speed (2.4, 4.8 or 9.6 Kbps), allowing voice and FAX communications to share a common access line. This eliminates the cost of a separate access line dedicated strictly to FAX communications.

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