The Intraplex® DS-967 synchronous data module provides full-duplex transmission of five 9.6 kbps synchronous data channels using only one time slot (DS0) in T1 (1.5 Mbps) or E1 (2 Mbps) circuits. The DS-967 also transports ten contact closure signals in each direction within the same time slot.

The module plugs into Intraplex access products, allowing low-speed data channels to be combined with other types of payload channels for transport over T1, E1, or IP networks.

In conjunction with the Intraplex SynchroCast3™ simulcasting system, the DS-967 module enables alignment of 9.6 kbps synchronous data channels for implementation of conventional digital simulcast systems. The same precision GPS-based phase alignment currently deployed in analog conventional simulcast systems across the country is now available for digital system implementations.

**Features**

- One-way or full-duplex operation
- Loopback of all channels at the receive side
- Optional timing inversion
- Module occupies one user-selectable time slot
- Simulcast compatibility with SynchroCast3™ simulcasting system
- Communications interface with Windows-based IntraGuide Configuration and Management Software®
- Compatible with Intraplex NetXpress, NetXpress LX, and Access Server multiplexers for use in T1, E1, and IP networks
Specifications
Specifications are subject to change without notice.

General
The DS-967 is compatible with Intraplex T1, E1, and IP multiplexers.

Data
Data Port.............Full-duplex, five independent data channels
Clock Data Rates...A common rate of 9.6 kbps

Signaling
E&M Signaling (10 contact closures in each direction)
M-Lead Input.......Switching threshold +2.5 V
                             Input impedance 10K ohm pull-up to +5 V
                             Vin H = 3.0 V minimum
                             Vin L = 2.0 V maximum

E-Lead Output.......Idle = Open
                             Busy = Less than 30 ohm to ground
                      On loss of power or frame synchronization, the E-lead will
                              go to the idle (open) state

Delay
9.6 kbps synchronous data end-to-end processing delay is 4.2 mS

Status Monitoring
Remote status monitoring of E-lead and M-lead state.
Remote status monitoring of both local and far-end receive synchronization
and mode.

Input/Output Modules
Data Interface.............Transmit: RS-42
                                      Receive: RS-232
Signals Supported............Transmit: Send Data (SD A/B), Terminal
                                      Timing (TT A/B), two M-leads (contact closure
                                      inputs), timing falling edge in center of data bit at
                                      the transmit interface at the RS-422/RS-232 level
                                      Receive: Receive Data (RD), two E-leads (contact
                                      closure outputs), common to all five channels,
                                      Send Timing (ST), Receive Timing (RT), timing
                                      falling edge in center of data bit at the RS-232
                                      output

Connectors..................MA-432 provides a 60-pin ribbon cable connector

Network Interface
Time Slot (DS0)
Assignments.................Five data channels and ten E&M leads occupy a
                                      single selectable 64 kbps time slot

Physical and Environmental
Nominal Power
Consumption............2.5 watts
Temperature.................-20° to 70° C Operating
Humidity....................0%-90% non-condensing