



# Intraplex® DS-64NC

LAN/Wideband Synchronous Data Module



GatesAir's Intraplex DS-64NC Wideband Synchronous Data Module provides transmission of LAN or synchronous data at rates up to 1.984 Mbps.

The DS-64NC plugs into Intraplex access products, allowing wideband data to be combined with other types of payload channels for transport over T1 (1.5 Mbps), E1 (2 Mbps), and other high-speed digital lines.

## Key Features

- Selectable data rate from 8 kbps to 1.536 Mbps in T1 multiplexers, and from 8 kbps to 1.984 Mbps in E1 multiplexers (8 kbps increments)
- One-way or full-duplex operation
- Fully independent send and receive timing (at the same nominal rate in both directions)
- Integrated Ethernet bridge (MA-427): IEEE 802.3 with 10,000 MAC address storage, 15,000 fps filtering, and 256-frame buffer capacity
- 10BaseT, V.35, X.21, or RS-449 interface
- DTE or DCE configuration
- Clear channel operation, even on AMI T1 networks
- Built-in test pattern generator and error analyzer

## Specifications

*Specifications and designs are subject to change without notice*

General	
System Compatibility	The DS-64NC is compatible with Intraplex T1, E1, and Ethernet access products.
Operating Modes	Transmit-only, receive-only, or full-duplex
Data	
Data Ports	<ul style="list-style-type: none"><li>• Data rates (8 bps increments)</li><li>• T1: 8 kbps to 1.536 Mbps</li><li>• E1: 8 kbps to 1.984 Mbps</li></ul>
Data Format	<ul style="list-style-type: none"><li>• No restrictions on data content</li><li>• Supports clear channel for T1 AMI networks</li></ul>
Transmit and Receive Buffers	Selectable: 64 bits, or 12 kb deep buffers to support plesiochronous operation
Timing	<ul style="list-style-type: none"><li>• DTE: Synchronizes network to send or receive timing input; provides terminal timing output synchronized to the network</li><li>• DCE: Provides send and receive timing synchronized to the network; can synchronize the network to terminal timing</li></ul>

## Specifications (continued)

Input/Output Modules				
Data Interface	Configurable for 10BaseT, RS-449, V.35, or X.21, DCE or DTE, by selection of appropriate module adapter (see <i>Connectors</i> , below)			
Signals Supported	<ul style="list-style-type: none"><li>10BaseT: UTP (Tx+, Tx−, Rx+, Rx−)</li><li>V.35: RTS, CTS, RLSD, DSR, LT</li><li>RS-449: RS, CS, RR, DM, TM</li><li>X.21: T, R, C, I, S</li></ul>			
Connectors	Each DS-64NC requires one module adapter (MA), which provides a data I/O connector and an RJ-11 timing I/O connector	<i>Adapter</i>	<i>Interface</i>	<i>Connector</i>
		MA-412	RS-449, DCE	DB-37S
		MA-414	RS-449, DTE	DB-37P
		MA-413	V.35, DCE	DB-37S
		MA-415	V.35, DTE	DB-37P
		MA-420	X.21, DCE	DB-15S
		MA-421	X.21, DTE	DB-15P
MA-428	10BaseT, UTP	RJ-45		
Network Interface				
Time Slot Selection	<ul style="list-style-type: none"><li>Selectable use of adjacent or alternate time slots</li><li>Time slot 16 can be skipped for CAS usage in an E1 system</li></ul>			
Time Slot (DS0) Assignments	56 or 64 kbps per time slot, with unused bits set to logic 1			
Clear Channel Capability	For T1 AMI networks: Alternate time slot use per AT&T TR-54019, or 56 kbps per time slot with 8th bit set to logic 1			
Status and Diagnostics				
LED Indicators	<ul style="list-style-type: none"><li>Service on/off</li><li>Transmit activity</li><li>Receive activity</li><li>Loopback active</li><li>Buffer overflow or underflow</li><li>Received errors (pattern bit errors)</li></ul>			
Loopbacks	Equipment, network, and remote loopback capability			
Test Patterns	<ul style="list-style-type: none"><li>Generates and detects test patterns for one-way or loopback testing</li><li>Patterns are all-ones, a single one with 15 zeroes, and 2<sup>15</sup>−1 quasirandom sequence</li><li>Error light flashes when bit errors are detected</li></ul>			
Physical and Environmental				
Nominal Power Consumption	0.4 watts			
Temperature	0 °C–50 °C operating			
Humidity	0%–90% noncondensing			