

# ComPORT® 2000

## Cable Modem

### Scalable, Robust Communications

The ComPORT 2000 is a low profile-cable modem that provides high-speed connectivity to residential, commercial, and educational subscribers on public and private networks (via an existing cable infrastructure).

- **Speed-Programmable Service** - A ComPORT can easily be assigned to one of the many cable operator defined service classes, each with different downstream and upstream bandwidth rates. Service class definition and ComPORT assignment is accomplished with Com21's easy-to-use NMAPS, cable modem network management software.
- **Remote Corporate Networking** - Each ComPORT can be assigned to Virtual Private Networks (VPNs) to ensure private connectivity for secure telecommuting and small home/office applications.
- **Telephone or Cable Return** - The ComPORT cable modems are capable of supporting both telephone and cable return networks. This allows immediate deployment of one-way service and migration to two-way without equipment replacement or truck rolls.
- **High Speed** - 64 QAM demodulation provides 30Mbps of downstream bandwidth in a single 6MHz channel for efficient use of the RF spectrum.
- **Robust Upstream** - QPSK upstream modulation provides 2.56Mbps of upstream bandwidth in a 1.8MHz channel, while Forward Error Correction and Frequency Hopping provide error-free performance in the harshest of cable environments.
- **Multiple Users per Modem** - Up to eight users are supported on each ComPORT via a standard 10BASE-T hub.
- **Data Security** - 40/56 bit DES encryption and public key management ensure secure upstream and downstream communications.



The ComPORT 2000 cable modem is based upon Com21's speed-programmable ComUNITY Access® system architecture and provides cable operators leading edge technology including quality of service (QoS), secure Virtual Private Networks (VPNs), and integration of voice, video and data capabilities.

The ComPORT 2000 offers the same features and benefits as the existing Com21 ComPORT 1000 cable modem, but without the Applications Interface Module (AIM) slot.

Com21's ComPORT 2000 is designed to make high-speed data services more profitable for cable plants of all sizes and architectures—suburban or metropolitan, HFC or coax, one-way or two-way. It can be remotely configured, with Com21's Network Management and Provisioning System(NMAPS), to operate at any of the cable operator-defined tiers of service, so users can operate with the bandwidth they require.

Because business users want privacy on their networks in addition to high-speed access, the ComPORT 2000 offers the ability to configure Virtual Private Networks (VPNs) that provide a secure, high-speed connection between the user's home and their corporate office.

The flexible ComPORT 2000 can be wall- or desk-mounted and supports Windows, MacOS, and UNIX workstations.

With Com21 technology, cable operators can maximize today's data-over-cable revenues while setting the stage for seizing tomorrow's new market opportunities in voice-, video- and data-over-cable.



# Specifications

## RF Specifications

	<i>Downstream</i>	<i>Upstream</i>
Operating Frequency Range	88-800 MHz	5-40 MHz (frequency agile)
Resolution	200 kHz steps	50 kHz steps
Channel Bandwidth	6 MHz	1.8 MHz
Input Impedance	75 ohms Nominal	75 ohms Nominal
Spurious Emission		minimum -50 dBc
Signal Level	RX: -15 dBmV to +15 dBmV	TX: +8 dBmV to +58 dBmV
Modulation	64 QAM	BURST QPSK
Signaling Rate	30.336 Mbps	2.56 Mbps

## RF Performance

Forward Error Correction	Viterbi/Reed Solomon ITU-T J.83 Annex B	Reed Solomon
Bit Error Rate (BER)	1x10E-9 BER at 23dB CNR w/FEC	1x10E-9 BER at 16dB CNR w/FEC

## Network

RF Transport	ATM AAL5
Network Protocols	IP, IPX, AppleTalk, NETBEUI
Ethernet Bridging	MAC level 1/2 bridge
Bridge Table	8 maximum

## Security and Encryption

North America	56-Bit DES encryption with Diffie-Hellman Public Key Management
International	40-Bit DES encryption with Diffie-Hellman Public Key Management

## Standards Compliance

Functional	Ethernet/IEEE 802.3
Network Management	SNMP proxy, MIB II (RFC 1213)

## Physical Interface

To the Computer	RJ-45 10Base-T connector
To the CATV Network	Female "F" type RF connector
LEDs	Power, RF, Transmit, Receive, Link

## Physical Specifications

Dimensions	9.5"W x 1.5"H x 7.3"D (24.13cm x 3.81cm x 18.54cm)
Weight	1 lb 5 oz (0.60kg)

## Electrical Specifications

AC Power	110V or 220V 47-63 Hz, country specific
Power Consumption	<10 watts

## Environmental Specifications

Operating Temperature	0 to 40°C
Storage Temperature	-40 to +75°C
Humidity	10-90% non-condensing

## Agency and Regulatory

FCC Part 15, Class B, EN 55022 (CISPR 22), Class B  
IEC 801-2, IEC 801-4

## Safety Approvals

UL 1950, EN 60950 (TUV)  
CUL listing to CAN/CSA 22.2 # 950

## Order Number

North America	CP2000
International	CP2100



Communications for the 21st Century

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