

## NMS 510 Series

### Adaptive Universal Rate Diagnostic Data Service Unit

*Product Highlights:*

- Adapts to network service type for support of conventional digital service or networks with secondary channel
- Automatically adjusts to universal data rates 2.4, 4.8, 9.6, 19.2 and 56 kbps, for improved responsiveness and ease of upgrades as your applications expand
- Supports integral, single-call dial backup restoral with leased line loopback for continuous communications around failed circuits
- Intelligent Front Panel option provides for the installation and programming of units



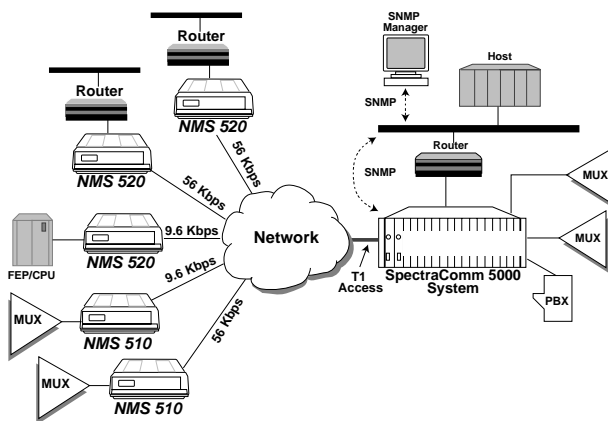
**Product Description** Besides providing a universal data rate capability for 2.4, 4.8, 9.6, 19.2, 56 and 64 kbps, the NMS 510 Series automatically adapts to the speed of the network as required by your application. In particular, this ensures a cost-effective migration path for those seeking to upgrade speeds in the future. An optional data rate adapter permits subrate terminal equipment to operate on 56 and 64 kbps aggregate circuits. This unique adapter functions point-to-point or multipoint at 56 kbps only.

The NMS 510 Series is available and interchangeable in standalone or rackmount enclosures. The rackmount assembly accommodates a variety of data communications products, including up to 16 NMS 510s, in the same high density rack. The units are well suited to these installations because of extremely low power consumption and resulting low heat generation, promoting longer component life and higher reliability.

**Integral Dial Backup** Single-call dial restoral over the switched network takes place through an

optional DBU-89 dial backup unit. The DBU-89 provides a full duplex, primary channel at up to 14,400 bps. This implementation reduces the number of circuits needed for restoral of critical network links. Dial backup is initiated from the central site without remote site intervention. Also included is a leased line lookback feature that monitors the primary digital circuit and re-establishes communications over this facility once it has been repaired.

**Intelligent Front Panel** The NMS 510 can be ordered with an Intelligent Front Panel (IFP) option to ease installation of the units, particularly at remote sites. An NMS 510 with the IFP may be used to program and monitor any other NMS 510 IFP or standard front panel unit, either locally or through downline-loading. Many basic management routines are supported, including: soft-strapping, status display, monitoring line parameters and EIA leads, plus diagnostic testing. A 2-line by 16-character LCD display and a series of 4 buttons on the front panel allow you to step easily through English language, menu-driven programs that simplify the process of setting up new network circuits.





## NMS 510 Series

### Specifications

#### SYNCHRONOUS DATA RATES

2.4, 4.8, 9.6, 19.2, 56 and 64 kbps

#### ASYNCHRONOUS DATA RATES

2.4, 4.8, 9.6, and 19.2 kbps (related to DDS transmission rate)

#### DATA FORMAT

**Synchronous:** binary, serial

**Asynchronous:** binary, serial; 8, 9 10 and 11-bit characters (CCITT V.14 compliant)

#### OPERATING MODE

DDS full duplex; point-to-point/multipoint, point-to-point @64 kbps

#### DATA ENCODING

Bipolar, return to zero

#### LINE REQUIREMENTS

4-wire, non-loaded metallic circuits

#### LINE IMPEDANCE

135 ohms (nominal)

#### BUSINESS MACHINE INTERFACE

CCITT V.35 @ 56 kbps and 64 kbps; EIA-232-D @ 2.4, 4.8, 9.6 and 19.2 kbps (optional EIA-530 interface)

#### TRANSMITTER TIMING

Internal, external or network timing

#### RTS/CTS DELAY

0.4 ms @ 56 kbps

8 ms @ 2.4 kbps

4 ms @ 4.8 kbps

2 ms @ 9.6 kbps

1 ms @ 19.2 kbps

30, 60, 90 ms options

#### POWER REQUIREMENTS

100-240 VAC, 50/60 Hz, 7.5 W nominal

#### HUMIDITY

Up to 95% without condensation

#### PHYSICAL CHARACTERISTICS

##### Standalone

Height: 99 mm (3.9 in.)

Width: 277 mm (10.9 in.)

Depth: 318 mm (12.0 in.)

Weight: 2.8 kg (6 lbs.)

Shipping Weight: 3.2 kg (7 lbs.)

Temperature: 0° to 50° C (32° to 122° F) operating

-40° to 70° C (-40° to 158° F) non-operating

Humidity: Up to 95% without condensation

##### Rackmount (Full shelf with 16 standard front panel data sets)

Height: 267 mm (10.5 in.)

Width: 483 mm (19.0 in.)

Depth: 343 mm (13.5 in.)

Weight: 18 kg (40.25 lbs.)

Shipping Weight: 19 kg (42 lbs.)

Temperature: 0° to 70° C (32° to 158° F) operating

-40° to 85° C (-40° to 185° F) non-operating

#### SAFETY PROTECTION

UL listed and CSA approved

#### INTERFERENCE PROTECTION

Verified to comply with FCC Part 15, Class A requirements

#### FCC REGISTRATION NUMBER

AG6USA-18067-DD-N (NMS 510 DSU)

AG6USA-18242-MD-E (NMS 510/DBU-89)

#### World Headquarters

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