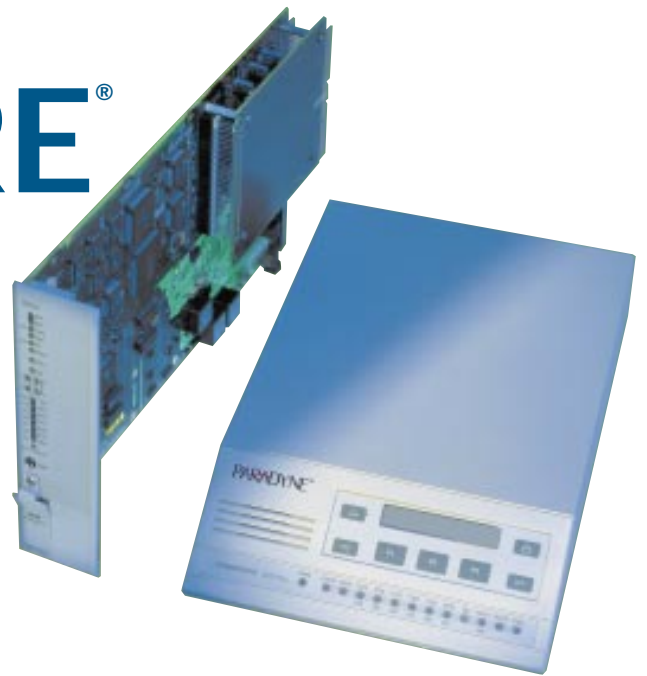# COMSPHERE®
3920*PLUS* SERIES
V.34 ANALOG PRIVATE LINE MODEM

B E N E F I T S

- MEETS HIGH-SPEED NETWORK REQUIRE-MENTS WITH SPEEDS UP TO 33,600 bps* OVER TWO- OR FOUR-WIRE LEASED-LINE AND PUBLIC SWITCHED DIAL NETWORKS

- PROTECTS HARDWARE INVESTMENT WITH SOFTWARE-DRIVEN ARCHITECTURE

- FOUR-PORT TIME DIVISION MULTIPLEXER (TDM) PROVIDES MAXIMUM EFFICIENCY OVER ANALOG LEASED-LINE CIRCUITS, REDUCING POTENTIAL FOR ADDITIONAL LINES AND COMMUNICATIONS EQUIPMENT

- PARADYNE'S NETWORK MANAGEMENT SYSTEM ENSURES ADVANCED MODEM CONTROL, NETWORK EFFICIENCY, AND FAULT ISOLATION, MAXIMIZING APPLICATION UPTIME AND USER SATISFACTION

- PREVENTS INTERRUPTIONS OR DATA LOSS WHEN SWITCHING BETWEEN LEASED LINE AND DIAL RESTORAL

- DELIVERS FASTER RESPONSE TIMES WITH TRELLIS MULTIPOINT TURN-AROUND TIMES AS LOW AS 10 MILLISECONDS

- SUPPORTS DIAGNOSTIC TAIL CIRCUITS

The COMSPHERE 3920*Plus* Series of software definable, high-speed, network-managed, analog private line modems are fully compatible with the industry's latest standard, ITU V.34 (28,800 bps), and support the industry's highest data rates up to 33,600 bps* (V.34+).

Based on Paradyne's award-winning COMSPHERE 3800 Series architecture, the software-defined flexibility of the 3920*Plus* Series allows you to change, upgrade, or enhance both the single-port and four-port families of modems, via "downloads" over the public switched or leased-line network.

The COMSPHERE 3920*Plus* Series delivers unsurpassed reliability with its full-featured standalone and carrier mount designs for either point-to-point or multipoint applications. The four-port Time Division Multiplexer (TDM) modem family maximizes your applications' network efficiency and cost effectiveness by reducing the potential for additional lines and/or equipment.

The single-port modem family is the newest member of the 3920*Plus* Series. Like the other members of the series, the single-port fully supports ITU V.34 (28,800 bps) and V.34+ (33,600 bps*); can be network managed by the COMSPHERE 6700 and 6800 Network Management Systems; and meets the requirements to support data integrity and speed critical analog applications.

The COMSPHERE 3920*Plus* Series modems can be configured for two- or four-wire analog leased-line networks with dial restoral via two-wire dial or two-wire leased line. Should the line quality deteriorate, the COMSPHERE 3920*Plus* Series modems (if optioned) will automatically downshift to lower speeds, attempting to preserve the link. If the modems are not able to operate at the minimal selected rate, the modem will initiate non-disruptive dial restoral.

PARADYNE™

F E A T U R E S

- SUPPORTS INDUSTRY'S FASTEST ANALOG SPEEDS

- HIGH-SPEED, MULTIPOINT OR POINT-TO-POINT NETWORK SUPPORT WITH MIXED INBOUND/OUTBOUND RATES IN MULTIPOINT MODE

- FOUR-PORT TIME DIVISION MULTIPLEXER (TDM) AND MODEM SHARING DEVICE (MSD) FUNCTIONALITY

- DESIGNED FOR GROWTH AND MIGRATION WITH SOFTWARE DOWNLOADING OF UPGRADES AND NEW FEATURES OVER THE DIAL OR LEASED-LINE NETWORK

- FULLY INTEGRATED LEASED-LINE NETWORK MANAGEMENT CAPABILITY WITH EITHER THE COMSPHERE 6700 OR 6800 NETWORK MANAGEMENT SYSTEMS (NMS)

- AUTOMATIC AND NON-INTERRUPTIVE RESTORAL OF THE PRIMARY LEASED LINE WITH HIGH-SPEED DIAL OR SECONDARY TWO-WIRE LEASED LINE

- MULTIPOINT DIAL RESTORAL CAPABILITY

- FRONT PANEL CONTROL OF LOCAL AND REMOTE MODEMS FOR CONFIGURATION, CONTROL AND STATUS

- SUPPORTS ITU V.34, V.33, V.32BIS, V.32, V.29, V.27bis, AND 33,600* AND 19,200* bps

SPECIFICATIONS

Leased-Line Modulations:
V.34+*: 33.6 Kbps, 31.2 Kbps Trellis Coded Modulation (TCM), synchronous/asynchronous
ITU V.34: 28.8 Kbps, 26.4 Kbps, 24 Kbps, 21.6 Kbps, 19.2 Kbps,16.8 Kbps, 14.4 Kbps, 12 Kbps, 9.6 Kbps,7.2 Kbps, 4.8 Kbps TCM synchronous/asynchronous
ITU V.33: 14.4 Kbps, 12 Kbps TCM synchronous
V.32*terbo**: 19.2 Kbps, 16.8 Kbps TCM, synchronous/asynchronous
ITU V.32bis: 14.4 Kbps, 12 Kbps, 9,600 bps, 7,200 bps TCM, 4,800 bps Quadrature Amplitude Modulation (QAM) synchronous/asynchronous
ITU V.32: 9,600 bps TCM, 4,800 bps QAM
ITU V.29: 9,600 bps TCM, 4,800 bps QAM synchronous
ITU V.27bis: 4,800 bps 2,400 bps Differential Phased Shift Keying (DPSK)

Multipoint Modulations:
Trellis Multipoint 19.2 Kbps, 14.4 Kbps, 9,600 bps, 7,200 bps, 4,800 bps, 2,400 bps

Dial Modulations:
V.34+*
ITU V.34
V.32*terbo**
ITU V.32bis
ITU V.32
ITU V.22bis: 2,400 QAM
ITU V.22: 1,200 DSK
ITU V.23: 1,200/75 bps, 600/75 bps (FSK)
ITU V.21: 300 bps FSK
AT&T 212A 1,200 bps (DPSK)
AT&T 1035 300 bps (FSK)

Transmit VF Interface
Signal level: Selectable 0 to -15dbm
Impedance: 600 ohms +10% balanced
Out of band energy meets international standards

Receive VF interface
Impedance: 600 ohms + 10% balanced

VF Connectivity
Leased line JM 8 (Standalone) 50-pin Mass Termination (Nestcard)
Dial Line RJ-11C permissive (Standalone)
RJ-21X permissive 50-pin connector (Nestcard)

DTE interface
(Standalone) CCITT V.24/EIA-RS323-D
25-pin D Type sub miniature connector

Power Requirements
100 to 240 VAC, 50-60 Hz (Standalone)
100 to 240 VAC, 50-60 Hz and 48 VDC (Nestcard)

Power Consumption
6 watts speaker off (Standalone)
4 watts each card (Nestcard)

Operating Environment
Normal temperature: 32°F (0°C) to 122°F (50°C)
Relative humidity: 5% to 90% non-condensing
Shock and vibration: withstands normal shipping
Storage temperature: -4°F (-20°C) to 158°F (70°C)

Auto-Mode
V.34+*/V.34/V.32*terbo**/V.32bis/V.32/V.22bis/V.22/ 212A/1035

Dimensions
Standalone
 7.6″ W x 12″ D x 2.2″ H
 (19.3 cm W x 30.48 cm D x 5.59 cm H)
Nestcard
 7.25″ W x 13″ D x 0.97″ H
 (18.42 cm W x 33.02 cm D x 2.46 cm H)

Weight
40 oz. (1.13 Kg) (Standalone)
16 oz. (0.45 Kg) (Nestcard)

Approvals
The COMSPHERE 3920*Plus* Series meets an extensive list of country certifications/ approval requirements. Orderable model and feature numbers vary by country.

A few more reasons to connect with Paradyne—the industry leader and winner of these awards for modem products.

MOD-39PL-2-0996

For additional information on this or any Paradyne product or service, contact the office nearest you. Or, dial toll-free (USA and Canada) 800 482-3333 or call 813 530-8623. Fax (USA) 813 530-2103.

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*V.34+ (33,600 bps) and V.32*terbo* (19,200 bps) are Paradyne modulations which are currently not supported by the ITU. Specifications subject to change without notice. Printed in U.S.A. © Paradyne Corporation 1996.

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