



Z H O N E

COMSPHERE 3800 Series Modems

3810-A1-001, 3811-B1-001, 3820-A1-001

- ✓ *Dial or leased lines up to 19.2 kbps*
- ✓ *Dial Modulations: V.32terbo, V.32bis, V.32, V.22bis, V.22, Bell 212A, V.21, Bell 103J*
- ✓ *2/4-wire Leased-Line: V.32terbo, V.32bis, V.32, V.22bis*
- ✓ *V.42bis / MNP Class 5 compression with error correction*
- ✓ *Automatic dial standby & backup (4-wire leased-line applications)*
- ✓ *Dial via front panel, RS366A or AT/V.25bis commands*
- ✓ *Four factory-defined plus two user-defined configuration areas*

Software-Defined (SD) V.32bis Modem Family

The COMSPHERE 3800 Series Software-Defined (SD) modem family consists of a number of full-featured V.32bis modems that support a wide variety of modulation schemes and functionality in both dial and 2/4-wire leased-line applications. By employing the latest techniques in ITU-T V.42bis/MNP Class 5 data compression and V.42/MNP 4 error correction, these modems offer error-free, high-speed data transfer and reliable throughput at data rates as high as 19,200 bps (V.32terbo) over dial/leased lines and can send data to the DTE at speeds as high as 115,200 bps.

The modem's compatibility with a number of dialing methods and protocols, such as asynchronous AT commands, ITU-T V.25bis dialing, EIA RS-366-A dialing for carrier-mounted modems, and the user-friendly diagnostic control panel (DCP), permits the 3800 Series modems to be used in a variety of applications and environments while also allowing control over modem configuration, dialing, and diagnostics.

The 3800 Series modems offer four preset factory configurations containing the most often used modem settings. These factory presets provide quick configuration for any asynchronous/synchronous dial, synchronous leased or UNIX hardware-based dial environments.

The COMSPHERE 3800 Series Software-Defined (SD) modem family is based on Zhone's award winning architecture that allows new features and enhancements to be downloaded over the public telephone lines. Through its software downloading capability, any 3800 Series modem can be upgraded to the latest firmware, requiring no new hardware investment or on-site personnel, and little or no downtime.

The COMSPHERE 3800 Series modems are available in several models.

- Model 3810: Standalone unit capable of operation on either 2-wire dial or 2/4-wire leased lines.
- Model 3811: Carrier-mounted modem for installation into a COMSPHERE 3000 Series Carrier; it is capable of operation on either 2-wire dial or 2/4-wire leased lines.
- Model 3820: Standalone unit capable of operation on either 2-wire dial or 2-wire leased lines.

COMSPHERE 3800 Software-Defined (SD) modems offer an innovative solution to reliable, high-speed network requirements by ensuring optimal error-free communications for your business' critical data. The COMSPHERE 3800 SD modems incorporate a flexible, state-of-the-art architecture that meets a wide variety of data communications requirements including both high-speed dial and two- or four-wire leased-line applications. With a unique software-defined architecture, the COMSPHERE 3800 SD family provides the high performance and unmatched reliability that users have come to expect from Zhone.

Technical Specifications

Dimensions

- **STANDALONE MODELS - 3810/3820 (HWD):**
 - 2.1 in. x 7.6 in. x 12.1 in.
 - 5.4 cm x 19.4 cm x 30.8 cm
- **CARRIER MODEL- 3811 (HWD):**
 - 7.1 in. x 0.9 in. x 13.4 in.
 - 18.1 cm x 2.3 cm x 34.0 cm

Weight

- **MODELS 3810/3820:**
 - 2.5 pounds (1.14 kg) (excluding power transformer)
- **MODEL 3811:**
 - 1.0 pounds (0.45 kg)

Power

- **MODELS 3810/3820:**
 - 115 Vac +/-10%, 60 Hz
 - 5.25 watts (typical, speaker off)
 - Speaker: ~1 watt at high volume.
- **MODEL 3811:**
 - 4.25 watts (typical, each card)

Interfaces

- **DTE INTERFACE:**
 - 25-pin D-sub EIA-232-D/ITU-T V.24
 - 25-pin D-sub RS-366-A (Model 3811 only)
- **TELEPHONE INTERFACE – DIAL LINE:**
 - Models 3810/3820: RJ11C Permissive
 - Model 3811: RJ21X Permissive 50-pin; RJ11C Permissive
- **TELEPHONE INTERFACE - LEASED-LINE:**
 - Model 3810: JM8
 - Model 3820: 6-pin center pair leased jack
 - Model 3811: 50-pin mass termination
- **TRANSMIT LEVEL:**
 - Dial Line: Permissive (-9 dBm)
 - Leased Line: 0 through -15 dBm (in 1 dBm decrements)

Standards Support

- **DIAL-LINE MODULATIONS:**
 - V.32terbo (19,200, 16,800 bps)
 - V.32bis (14,400, 12,000, 9600, 7200, 4800 bps)
 - V.32 9600, 4800 bps)
 - V.22bis (2400 bps)
 - V.22 (1200 bps)
 - V.21 (300 bps)
 - Bell 212A (1200 bps)
 - Bell 103J (300 bps)
- **LEASED-LINE MODULATIONS:**
 - V.32terbo (19,200, 16,800 bps)
 - V.32bis (14,400, 12,000, 9600, 7200, 4800 bps)
 - V.32 (9600, 4800 bps)
 - V.22bis (2400 bps)
 - V.33 (14.4 and 12 kbps) - optional software
 - V.29 (9600 and 4800 bps)- optional software
- **FAX MODULATIONS (Optional):**
 - V.17 (14,400, 12,000, 9600, 7200 bps)
 - V.29 (9600, 7200 bps)
 - V.27 ter (4800, 2400 bps)
- **ERROR CONTROL:**
 - V.42
 - MNP 4-2
- **DATA COMPRESSION:**
 - V.42bis
 - MNP Class 5

Protocol Support

- Hayes Autosync
- AT commands
- V.25bis commands
- RS-366-A (Model 3811 only)

Management

- Configuration, control, and status via front panel
- Remote configuration, control and status via "AT" commands
- Full compliment of self tests, local and remote loopbacks, including compliance with CCITT V.54
- Software downloading for new features/loads

Bandwidth/Distance

- **DATA RATES – DIAL LINE (bps):**
 - 19,200, 16,800, 14,400, 12,000,
 - 9600, 7200, 4800, 2400, 1200, 300
- **DATA RATES – LEASED LINE (bps):**
 - 19,200, 16,800, 14,400, 12,000,
 - 9600, 7200, 4800, 2400
- **DATA RATES – FAX LINE (bps):**
 - 14,400, 9600, 7200, 4800, 2400

Regulatory Compliance

- FCC Part 15 Class A
- FCC Part 68
- AW2USA-18781-MD-E
- UL 1950; UL 478
- CSA C22.2 No. 950

Operating Requirements

- Operating: 32°F to 122°F (0°C to 50°C)
- Storage: -4°F to 158°F (-20°C to 70°C)
- Humidity: 5% to 90% (noncondensing)

Ordering Information

3810-A1-001	2-wire Dial and 2/4-wire Leased Line V.32bis Modem, Standalone Unit
3811-B1-001	2-wire Dial and 2/4-wire Leased Line V.32bis Modem, Nest Card for 3000 Carrier
3820-A1-001	2-wire Dial Line Only V.32bis Modem, Standalone Unit



Zhone Technologies, Inc.
 @ Zhone Way
 7001 Oakport Street
 Oakland, CA 94621
 510.777.7000 phone
www.zhone.com

For more information about Zhone and its products, please visit the Zhone Web site at www.zhone.com or e-mail info@zhone.com

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