



## ZN-241G

## General Purpose Wireless Serial Modem

### Features:

- **Auto-Configuring**
- **100mW Transmit Power**
- **2.4GHz**
- **Seamless fit into existing wired networks**
- **Multiple Interfaces**
- **Automatic Relay**

### Benefits:

- **Low Cost/High Power**
- **Easy to install and use**
- **Deployable in a wide range of uses**
- **Excellent range and coverage indoors and out**
- **License-free deployment around the world**
- **Reliable communications even when a direct path is blocked**

Built on 802.15.4 technology, the ZN-241G is ideal for a range of applications from simple RS-232 cable replacement to sophisticated multi-drop RS-485 networks and everything in between. Available in RS-232, USB and industrial RS-485 models, the ZN-241G has an Auto-Configure feature that removes the need for ANY modem configuration. For demanding applications, the ZN-241G is completely configurable to support a variety of different needs. With a full 100mW of transmitted power, the ZN-241G can cover an entire factory floor or bridge distances of a mile or more outdoors.



### Radio Specifications

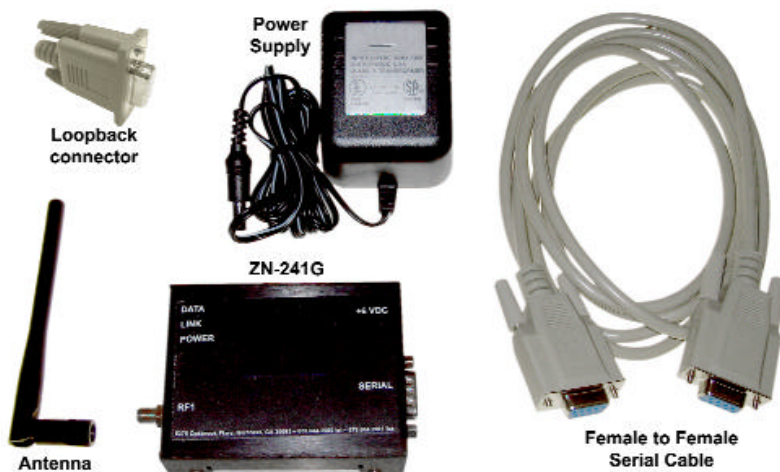
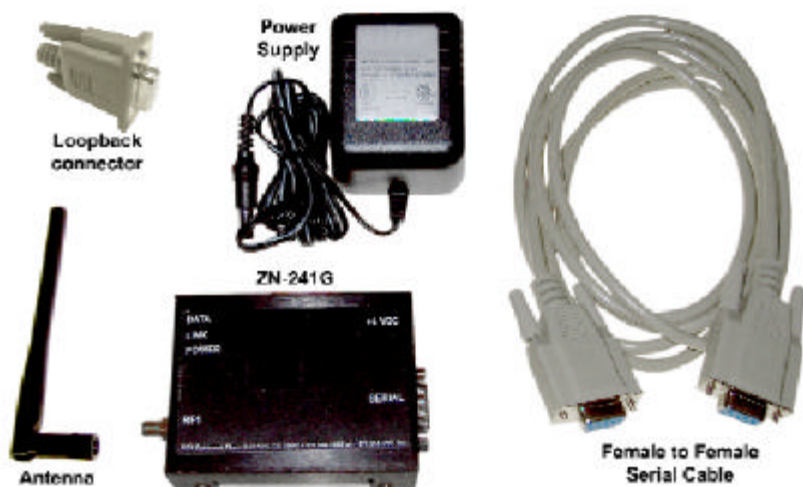
|                     |                                                                          |
|---------------------|--------------------------------------------------------------------------|
| RF Frequency        | 2401 - 2483.5 MHz                                                        |
| Spreading Technique | Direct Sequence Spread Spectrum                                          |
| Modulation          | O-QPSK                                                                   |
| Transmit Power      | +18 dBm at antenna connection; 100mW with 2dBi dipole antenna (included) |
| Receive Sensitivity | -95 dBm for 10-5 BER                                                     |
| RF Channels         | 16 User selectable                                                       |
| RF Data Rate        | 250 Kbps                                                                 |
| Antenna Connector   | Reverse SMA Male                                                         |

## Electrical Specifications

|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Operating Voltage     | 6VDC - 12VDC                                                        |
| Power Consumption     | 2W Max peak; 750mW typical                                          |
| Operating Temperature | -40°C to +85°C                                                      |
| Serial Interfaces     | ZN-241G — RS-232<br>ZN-241GU — USB<br>ZN-241GI — RS-485 half-duplex |
| Indicators            | Power<br>Link<br>Activity                                           |

## Mechanical Specifications

|                 | ZN-241G                   | ZN-241GU   | ZN-241GI             |
|-----------------|---------------------------|------------|----------------------|
| Case Materials  | Black Anodized Aluminum   |            |                      |
| Dimensions (mm) | 82.5mm x 64.24mm x 25.5mm |            |                      |
| Weight          | 122g                      |            |                      |
| Data Connector  | DB9                       | USB Type B | Screw Terminals      |
| Power Connector | DIN Connector             |            | 2 Terminal Connector |



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## Value

Even with the high transmit power, the RFM ZN-241G is priced to fit any budget, making the choice to replace wires even more compelling. With the multiple interfaces and multiple operating modes, the ZN-241G delivers unsurpassed value for any application. The ZN-241G is built on standard 802.15.4 radio technology and provides a crisp 250Kbps over-the-air data rate using Direct Sequence Spread Spectrum methods. The result is a wireless network with plenty of data throughput for most applications and the robustness to provide reliable, worry-free data transmission.

## Versatility

Operating in the international license-free 2.4GHz frequency the ZN-241G can be deployed around the world. With the choice of an RS-232, a USB or an RS-485 interface, the ZN-241G has a model to fit almost any application. The Auto-Configure feature makes setting up point-to-point links a snap. The broadcast mode coupled with the RS-485 interface, provides a simple replacement for half-duplex, multi-drop RS-485 wiring. The ZN-241G also has a fully-addressable multi-point mode to support more demanding applications. Whatever your need, the ZN-241G can handle it.

Even though the ZN-241G is a low cost wireless modem, it includes a repeater function to help overcome signal blockages. This function allows a remote node to relay data through another remote node when the direct path is blocked. Similarly, a remote node can receive data through another remote node when the direct path from the base is blocked.