



Powerful Wi-Fi Network Link and Access Point

Extremely low power consumption

Overview

The NL241 is a Wi-Fi WLAN (wireless local area network) interface that provides connectivity to your data logger through your existing Wi-Fi network or any available Wi-Fi hotspot. It can either join an existing network or create a network providing a direct link to the data logger or to a cloud data service, like Campbell Scientific’s KonecT. The NL241 can also be used as an access point for directly connecting to the data logger from any Wi-Fi enabled device.

The NL241 is a wide-operating-temperature and low-power-consumption device, making it ideal for providing Wi-Fi client and access point functionality in demanding and remote

applications. The wireless access point feature allows any Wi-Fi device to connect, including your PC, phone, tablet, or even another NL241 or NL240. It can be always on, cycled on and off under program control, or brought up with the touch of a button. Unlike the NL240, the NL241 is a true access point and does not rely on ad hoc networking.

This wireless network link interface is configurable to support a number of different types of connections including PakBus, TCP serial server and client, Modbus/TCP gateway, and Wi-Fi to CS I/O port bridging.

Benefits and Features

- ▶ Low power consumption for reduced power supply costs
- ▶ Embedded radio transmitter for simplified operation and use as an access point without the need for ad hoc networking
- ▶ Quick configuration as an access point in the field
- ▶ Access to full PakBus routing capabilities
- ▶ Direct data logger communication with IP connectivity supported through LoggerLink smartphone app and LoggerNet PC software

Specifications

Transmission Distance or Area	Worldwide	Operating Temperature Range	-40° to +70°C
Material	Aluminum case with black anodized finish	Configuration	<ul style="list-style-type: none"> ▶ Terminal menu over RS-232 ▶ Telnet console over Wi-Fi

	› Device Configuration Utility over USB or Wi-Fi
CS I/O Port	› 9600 bps to 460.8 kbps › SDC 7, 8, 10, or 11 (does not support ME)
RS-232 Port	› 1200 bps to 115.2 kbps › DTE, DB9 Male
USB Port	Micro-B
Supported Protocols	IPv4, IPv6, ICMP/Ping, ICMPv6/Ping, TCP/IP, DHCP Client, DHCP Server (in access point mode only), SLAAC, DNS Client, HTTPS Proxy, TLS, Telnet Server, PakBus, Modbus
TCP Connections	› 50 simultaneous connections supported › 10 of the 50 TCP connections can be used for TLS
PakBus Router	50 routes supported
Modbus Server	Up to 15 concurrent transactions supported
Power Source	CS I/O or DC barrel connector (not USB)
Supply Voltage	9 to 16 Vdc
Compliance Information	› CE Compliant › Complies with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules
Embedded Radio Transmitter Approvals	› Industry Canada: 8407A-RS9113SB

	› FCC Identifier: XF6-RS9113SB
Service Requirements	Wi-Fi hotspot (access to standard 802.11b/g/n networks)
Dimensions	16 x 7.3 x 2.54 cm (6.3 x 2.9 x 1 in.)
Weight	180.35 g (6.36 oz)

WLAN

Antenna Connector	RPSMA
Supported Technologies	802.11b/g/n, WPA/WPA2-Personal, WPA/WPA2-Enterprise Security, WEP
Client Mode	WPA/WPA2-Personal and Enterprise, WEP
Access Point Mode	WPA2-Personal
Communication Rate	› up to 72 Mbps (802.11n) › up to 54 Mbps (802.11g) › up to 11 Mbps (802.11b)
Transmit Power	› 10 ± 1 dBm (medium) › 7 ± 1 dBm (low) › 18 ± 2 dBm (high)
Rx Sensitivity	-97 dBm
Frequency	2.4 GHz

Power Consumption

Client Mode	› 7.5 to 8 mA (idle) › 65 to 75 mA (communicating)
Access Point Mode	› 70 mA (communicating) › 67 mA (idle)
Standby	< 1.5 mA

For comprehensive details, visit: www.campbellsci.com/nl241 

